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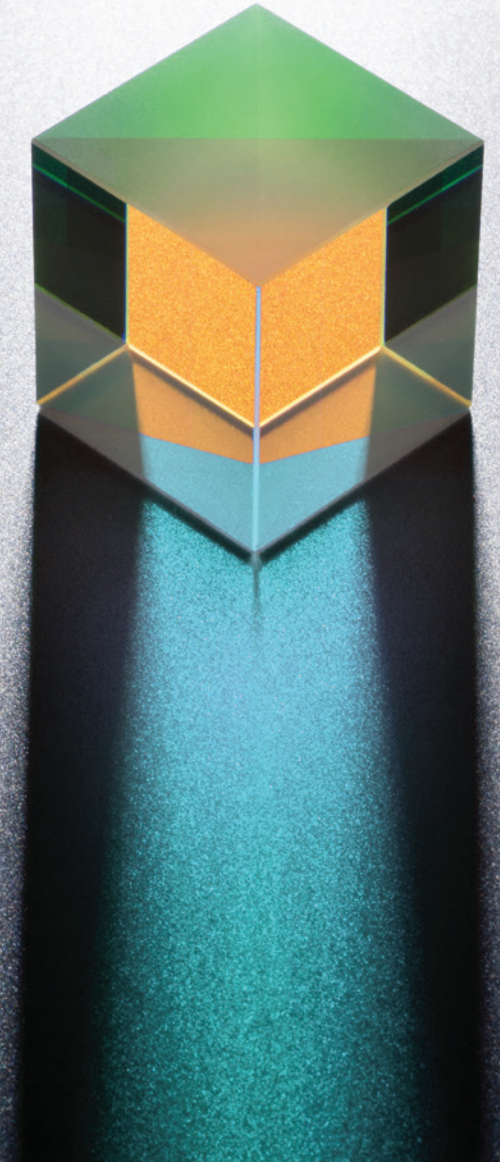
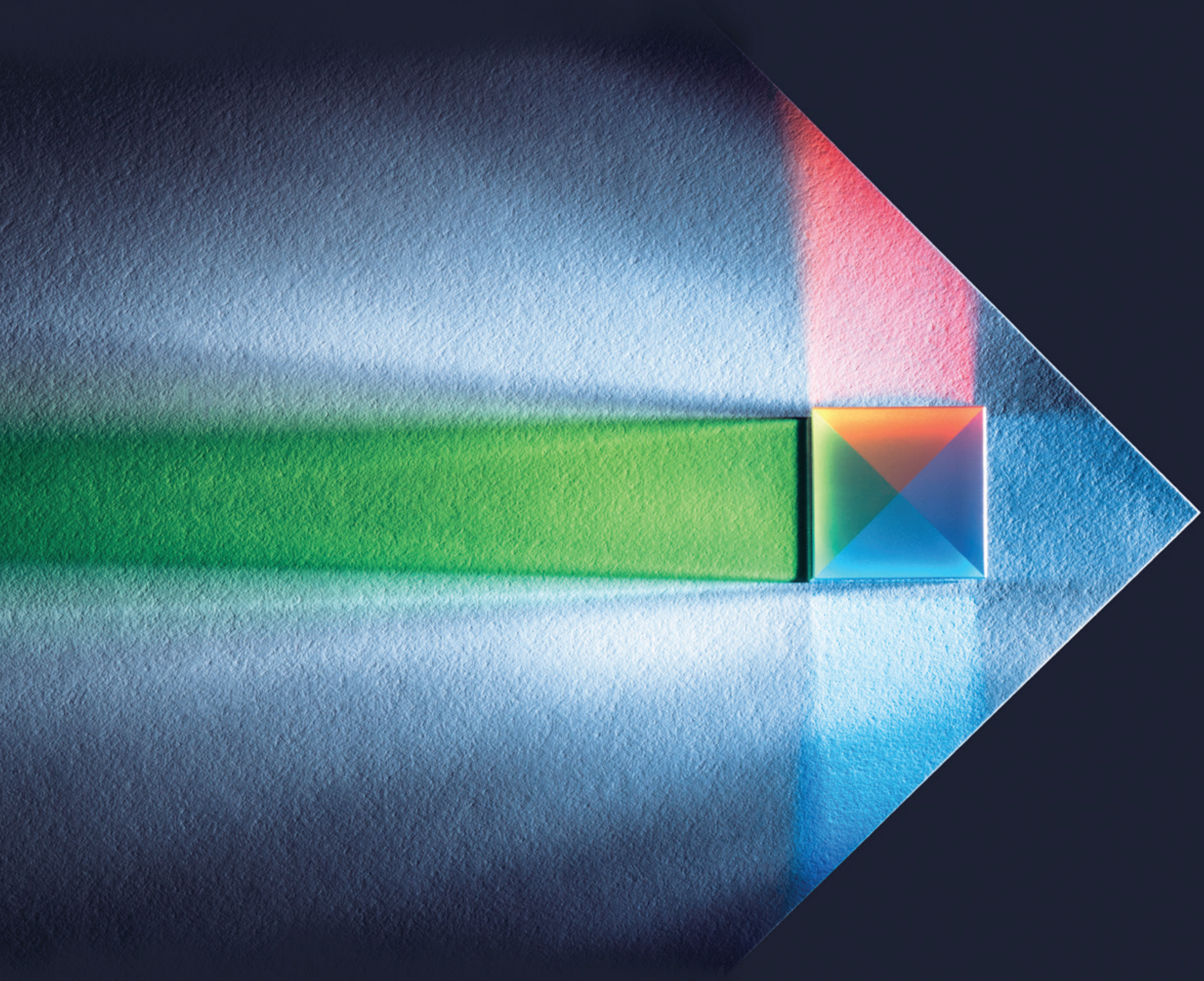


GLOBAL INVESTMENT COMMITTEE 2020 OUTLOOK

20/20 vision: a clearer path for growth

In many ways, the macro outlook is brighter today than it was one year ago as economic growth is solidifying, trade and monetary policy risks have receded and sentiment has improved. Yet, we think market returns may be lower over the coming year and decade compared to what we experienced in the past. It will continue to be a challenge to construct outcome-focused investment portfolios.



Diversify and defend

Jose Minaya
Chief Investment Officer

Nuveen's investment theme for the coming year is *20/20 vision: a clearer path for growth*. The "clearer path" part is pretty straightforward: Our investment leaders think the macro fears that dominated most of 2019 have receded. Monetary policy is easier than it was a year ago, and global recession risks seem to have faded too. Trade policy remains a source of concern, but hasn't been causing the sorts of market selloffs it did in late 2018 and earlier in 2019. And while other geopolitical events such as Brexit and the 2020 U.S. elections will likely spark fresh bouts of volatility, we think what has been the longest postwar economic expansion in history still has legs.

But it's that "20/20 vision" part of our theme that I think may be more important. Because 2020 looks to be a year where investors will need keen vision to closely scrutinize markets to find the fewer investment opportunities that exist the longer the bull runs. That's what we discussed at our year-end meeting of Nuveen's Global Investment Committee, where we also debated what's been happening in the markets, where we might be headed and, of course, what it all means for our clients' portfolios.

As you'll see in this outlook, while we continue to find good investment opportunities across asset classes, we are also increasingly concerned about fuller valuations, whether the asset in question is a stock or a real estate property. And although we're calling for continued global growth, we recognize that the world is in the later stages of the current economic and credit cycle. So, putting our 2020 theme in context, picture a year in which the economy's path seems clearer but markets … not so much. That's a notable shift from what investors have come to expect over the past decade when we enjoyed strong financial returns while worrying about economic growth. The bottom line: Be prepared to tamp down your return expectations.

We think it makes sense for most investors to have a broadly defensive stance even as they stay invested, focusing on quality growth in equities and higher quality in fixed income, for example. We would balance that defensive stance by looking at select emerging markets equities and debt as well as a range of alternatives to help generate portfolio returns that may be tougher to find in traditional asset classes.

Regardless of how defensive you choose to be in your portfolio, diversification and selectivity will become ever more important, especially as we think yields will remain low, returns will be tough to come by and volatility may rise. In fact, as you'll see reflected in our portfolio construction discussion, diversification itself is our highest-conviction trade. That means getting more exposure to more risks and more opportunities across asset classes, while also remaining nimble. And if that sounds like an argument for active management, it is.

We hope the insights offered here, along with Nuveen's broad, diverse and deep investment platform and portfolio-construction expertise, can help you reach your unique investment goals in 2020.

Better growth, tougher returns

Brian Nick
Chief Investment Strategist

- 2019 was a year of slowing growth and surprisingly good market returns. We expect things to reverse in 2020.
- Global growth and interest rates should rise only modestly from their current low levels.
- Equity market returns may remain capped by lackluster earnings growth and toppy valuations.
- Investors may already be overrating the impact of the 2020 U.S. election on the economy and markets.

We expected a tougher climb in 2019, and when it comes to the economic environment, that's just what we got. Growth fell short of expectations almost everywhere in the world for almost the entire year. The U.S./China trade talks were a focus of optimism in the spring, but fell apart over the summer, resulting in higher tariffs. Economic pessimism and policy uncertainty fed off one another, leading to declines in global trade flows and a global manufacturing recession. Unsurprisingly, interest rates retested all-time lows in many countries as investors fled to safer assets. Central banks helped nudge this trend along by undertaking a synchronous easing policy.

Despite all the noise and disappointment, risk assets performed quite well last year. While still acutely sensitive to recession risks, global stocks continued to make new all-time highs, and as of early December had not experienced a correction of more than 7% in 2019. Most of 2019's gains came as a result of waning policy risks (e.g., U.S./China trade talks resuming in the fall) or firmer evidence that the U.S. economy would avoid recession. As a result of the simultaneous rally in both stock and bond prices, investors hold a more expensive-looking mix of asset classes than they did at the beginning of the year. So while the path for economic growth looks clearer, markets will be challenged to match 2019's performance.

Don't look for things to speed up in 2020

The global economy is growing at its slowest rate in a decade in 2019, and we are forecasting only a modest improvement in 2020. The U.S. economy remains hampered by an absence of private investment growth and falling productivity, owing to trade uncertainty and rising labor costs. These trends will continue to put downward pressure on already sluggish corporate earnings growth. Monetary stimulus from the Federal Reserve and other central banks has helped, but inflation risks are rising and most central banks have already cut rates close to all-time lows. The U.S. economy has downshifted to 2% from 3% growth over the past year, mirroring the slowing global expansion. We expect neither a sharp acceleration nor a further slowdown in 2020. Rather, we see another year of around 2% growth as the likeliest outcome.

China's economic stimulus has not produced the same massive credit growth that fueled global cyclical upturns in prior years (Figure 1). Retail sales and investment have also weakened by more than expected, and China's growth rate seems likely to fall below 6% next year for the first time in recorded history. Europe's open economy remains hostage to weak overseas demand, particularly for manufactured goods. While Germany has narrowly avoided recession, signs of genuine recovery on the continent remain few and far between, leading us to expect another sluggish year of just over 1% real growth.

Avoiding the worst-case scenario

If our outlook doesn't bring cheer, consider that it's already brighter than what we were bracing for just a few months ago: A trade war on a rolling boil, a Brexit mess and a worrying weakness in economic data headlined the global narrative coming out of the summer. Since then, however, U.S. consumers have shown resilience and the U.S. labor market has strengthened. Against the prevailing demographic trend placing more Americans into retirement (or, at least, retirement age), overall labor force participation

Figure 1 – The massive China credit growth from prior stimulus efforts is absent today

Data source: Bloomberg, L.P., 01 Jan 2010 to 31 Oct 2019.

has inched higher and wage growth has remained supportive of future consumption (Figure 2). Lower interest rates have also provided a boost to the housing market. Builders are applying for more permits today than at any point in over a decade.

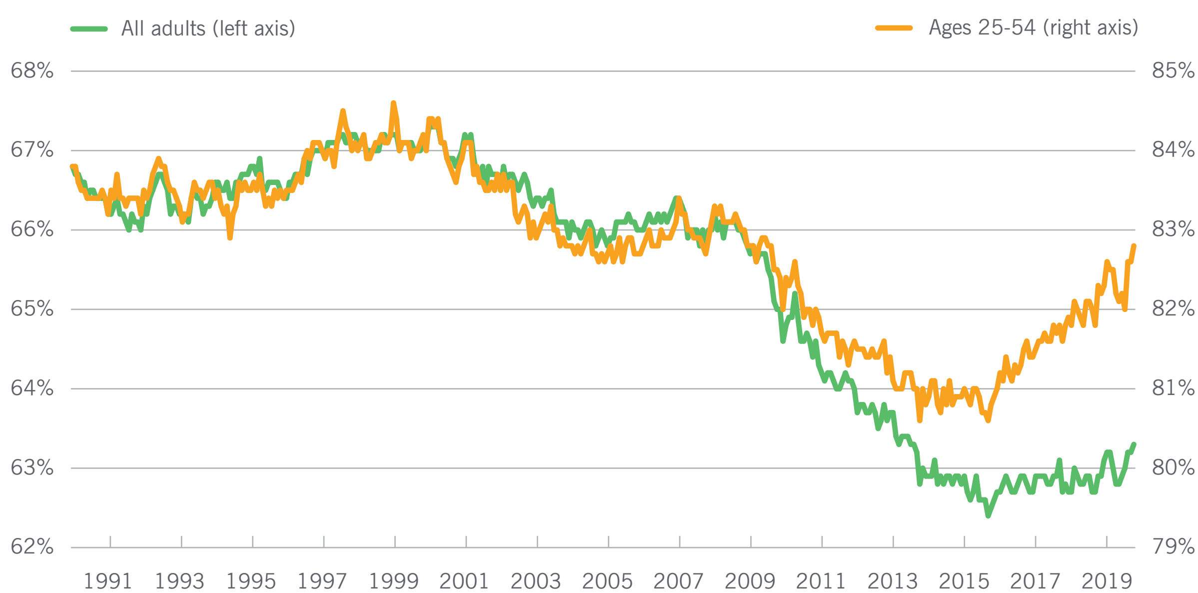
Global manufacturing, while still weak, is climbing out of recession, led by the U.S. and China. Factory inventories have fallen, as manufacturers hold well-founded doubts about whether demand will continue to weaken. But some of the leading indicators within manufacturing surveys have begun to improve. New orders for Chinese manufacturers, a leading indicator for growth, hit their strongest level in October since 2013.

As we look into 2020, financial conditions have crucially become more supportive of growth: Market-based recession risks have gone from flashing orange or red to merely yellowish green. The U.S. Treasury yield curve has steepened — and uninverted — while credit spreads have narrowed and the U.S. dollar has eased down from its decades-high level.

As the outlook brightens, investors may still be overestimating the downside risks, but we still believe global recession risks have abated or, indeed, reversed in recent months. And that belief has tempered our pessimism as well as our appetite for purely defensive assets like cash in our investment strategies.

Figure 2 – The U.S. labor market looks stronger and broader heading into 2020

Labor participation rate



Data source: Bureau of Labor Statistics, Bloomberg, L.P., 01 Jan 1990 to 31 Oct 2019.

The path for economic growth looks clearer, but markets will be challenged to match 2019's performance.

 OPINION PIECE. PLEASE SEE IMPORTANT DISCLOSURES IN THE ENDNOTES.

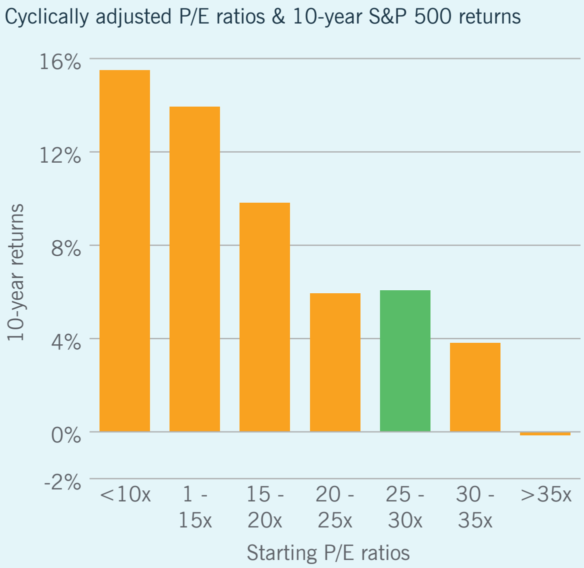
Approaching the 2020s with caution

The 2010s rewarded investors who put their money into broad public market indexes. Global stocks produced close to double-digit average annual returns while global bonds also generated solid results. In both cases, stellar performance has been accompanied by rising valuations, setting up returns to be lower in the 2020s. Valuation is generally a poor predictor of performance in a single calendar year, but it has been the best single predictor of both absolute and relative performance over 10-year periods.

A 50-50 portfolio of the MSCI All Country World Index (global stocks) and the Bloomberg Barclays Global Aggregate Index (global bonds) returned an average of 7.2% per year from November 2009 through October 2019. The average yield on the global bond index at the start of that period was just under 3%, more than double its level today. Similarly, global equities are priced for a lower return in the 2020s than over the past decade, with P/E ratios significantly higher than they were at the start of the decade.

U.S equities have provided the bulk of the returns on the global index over the past 10 years. But based on historical data, their current cyclically adjusted P/E ratio of close to 30 implies an average total return in the mid-single digits over the coming decade (Figure 3). That's well below half of their average return during the 2010s.

Figure 3 – U.S. equity valuations imply lower returns over the next decade



Data source: Bloomberg, L.P., Yale University. Data depicts the historical 10-year returns of the S&P 500 Index from 1926 through 2018 based on average monthly results. **Past performance is no guarantee of future results.**

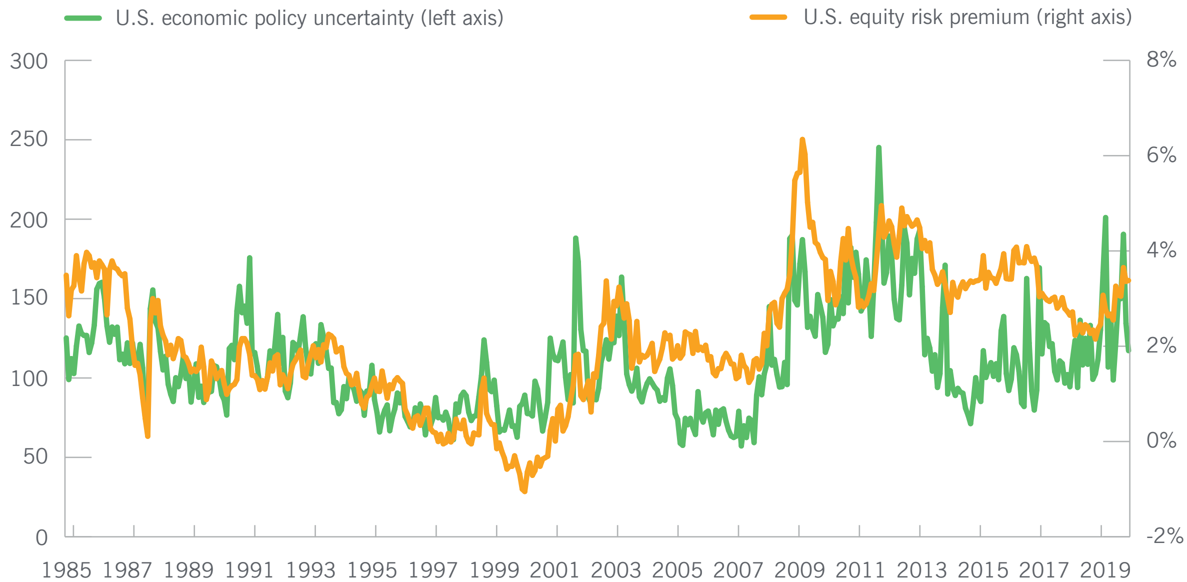
We haven't reached an equilibrium

We don't foresee either a heating up or a cooling down of growth in 2020, but that doesn't mean markets have reached a stable equilibrium. Policy uncertainty has declined, to be sure, but it remains elevated. We know from recent experience that spikes in uncertainty tend to drive investors out of stocks and into bonds and cash, sending the equity risk premium higher (Figure 4).

Even absent new policy risks, the prevailing global economic trend is still for lower growth over time. Trade flows and population growth are declining. Productivity growth in the U.S. has turned negative less than two years after the passage of a tax bill that was meant to spur innovation. Instead, companies are taking fewer risks, as they see their profit margins eroded by rising costs. Firms may eventually have to push these costs onto consumers, leading to higher inflation and the potential for Fed rate hikes to reenter the picture. While we don't see this scenario playing out in 2020, fears of hikes in 2021 or beyond could have a significant market impact if they are anticipated far in advance.

We also do not believe most asset classes are priced today to produce higher returns in the coming years unless there is a significant improvement in global fundamentals. Credit spreads are narrower, interest rates are lower and equity price-to-earnings multiples are far higher than they were a year ago (Figure 5). And there is no near-term catalyst akin to the 2017 corporate tax cuts to boost earnings. To borrow a phrase from last year's outlook, we expect a tougher climb for U.S. stocks in the year ahead. Equity markets outside the U.S. may benefit, to the extent they are valued more cheaply, but we see similar barriers to higher profits and stronger investor risk appetite in Europe, Japan or emerging markets.

Figure 4 – Policy uncertainty has been a drag on risk assets



Data source: Robert Shiller, Bloomberg, L.P., and policyuncertainty.com, 01 Jan 1985 to 31 Oct 2019. The Policy Uncertainty Index measures policy-related uncertainty via an analysis of media coverage, tax code provisions and disagreement among economic forecasts. Equity risk premium refers to the excess return investment in stocks has provided over a "risk-free rate" such as Treasuries. As Treasury rates fall, that premium tends to grow.

Wait, there's a U.S. election coming up?

Somehow we've gone this far without addressing the elephant in the room — or the donkey, depending on your political proclivity. In just under a year, the U.S. will hold a presidential election. The unusually high and unusually early amount of interest that voters and investors alike have taken in the outcome is already affecting markets. U.S. health care could be severely disrupted if a single-payer system is enacted in 2021. The fact that several candidates have proposed one may have caused the sector to struggle for much of 2019. Some of the policy proposals on technology, energy and financials could have similar market effects, and some may have already.

The GIC spoke to a number of Nuveen's sector analysts about the potential impact of federal regulatory policy and legislative changes on their coverage areas. Without exception, they believed that a lot of political risk was already embedded in asset prices across both credit and equity markets. As such, we are not heavily weighting the election in most of our investment strategies for 2020. In addition to examining the impact various policy proposals might have on the economy and financial markets, we also need to factor in the extent to which they are already priced in, as well as the chances that they'll ultimately be enacted. Who will the presidential candidates be? Who will be president in 2021? What will Congress look like? How will the courts treat various executive actions? All of these questions tend to dilute our expectations for massive policy swings in the coming years. At this stage, it does not make sense to give too much weight to any single outcome.

Figure 5 – Publicly traded asset classes are more richly valued heading into 2020

Data source: Bloomberg, L.P., 01 Jan 2018 to 08 Nov 2019. **Past performance is no guarantee of future results.** Representative indexes: **U.S. high yield:** Bloomberg Barclays High Yield Corporate Bond Index; **global equities:** MSCI All Country World Index; **U.S. municipals**: Bloomberg Barclays Municipal Bond Index. Indexes are unavailable for direct investment.

Investing themes for 2020

We are expecting global growth to average just over 3% in 2020, a slight improvement over 2019. We also expect interest rates to remain low and stocks to make fewer new all-time highs. Investors' search for yield will drag on, supporting the case for fixed income diversification and equity dividend yield and growth. Income-producing alternatives will become a more valuable part of an asset allocation given our expectation that returns on traditional stock and bond portfolios will be lower.

Policy risks remain, and central banks are low on ammunition to confront an unexpected slowdown. But investors who are paralyzed by the U.S. election or other sources of policy uncertainty are likely overestimating the risks. The chances of an escalating trade war or a messy Brexit have fallen, while the help markets are receiving from easier financial conditions may just be kicking in, clearing the path for growth in the year ahead.

The bottom line is that the next decade could be tougher for investors than the last 10 years. But that doesn't mean we think investors should head to the sidelines. As you'll see throughout our 2020 Outlook, we're finding a range of good opportunities across asset classes — as long as they are approached with nimbleness and flexibility.

Responsible investing helps drive investment performance

Amy O'Brien

Interest in responsible investing (RI) has exploded in recent years, with investors and asset managers alike focusing on incorporating environmental, social and governance (ESG) factors into their portfolios. But RI is still often misunderstood.

At Nuveen, we believe that RI and ESG factors are not about excluding certain investments or asking, "What don't we buy?" Rather, we infuse RI into more and more of our investment processes as one of many critically important factors we use to mitigate risks and add alpha for our clients.

Increasingly, we are adopting these factors across all of our asset classes. We're focusing on a range of investment themes, including climate resilience investments in real estate and real assets; low carbon, ESG municipals, and green bonds in our public investments; and additional ideas you can see in the following asset class discussions.

EQUITIES

A "less bad" environment provides breathing room

Saira Malik

Opportunities and positioning

- Value has been outperforming growth since the summer. We think this trend may still have a few months of life in it. Unless economic growth accelerates to above-trend levels, however, we believe quality growth areas of the market look better in the long term, including health care services companies or companies that dominate their markets.
- Geographically, we're seeing better value in Europe (Germany in particular) and think China could benefit if trade issues ease. We also like Brazil for its ongoing economic reforms and relative insulation from global trade issues. Looking at global sectors, financials continue to look attractive across global markets.
- We're employing ESG factors across portfolios, including focusing on companies with high-quality boards that are better able to ensure long-term shareholder value creation.
- Private equity remains a valuable diversifier to public markets. But the entry point is challenging, due to higher valuations resulting from strong 2019 performance and increased competition for deals.

Risks to our outlook

- Corporate earnings growth will likely remain sluggish in 2020, and stock valuations are higher today than they were a year ago. This may limit opportunities for the broad market, making selectivity a key factor.
- We are also concerned about unknown outcomes from the 2020 U.S. elections that could result in higher taxes or a more stringent regulatory backdrop, which would be a negative for stocks.

BEST IDEAS: *We are seeing more value in European stocks and think China could benefit if trade issues abate. We are also bullish on Brazil given ongoing economic reforms and relative insulation from trade-related risks.*

TAXABLE FIXED INCOME

Late cycle positioning, but not end of cycle

Bill Martin

Opportunities and positioning

- We expect the 10-year Treasury yield to remain between 1.5% to 2% in 2020 supported by low inflation, modest growth and central bank liquidity. This "lower for longer" environment leads us to be comfortable taking on duration and spread risk.
- Across credit markets, we believe investors should upgrade quality and increase liquidity. We see better opportunities in the investment grade market than in high yield. The U.S. consumer should remain resilient, favoring mortgage-backed and consumer-related securitized assets. From a sector perspective, we like debt and preferred securities issued by U.S. financial institutions.
- We are bullish on emerging markets debt. We think high-conviction exposures based on deep country and issuer-specific research can offer especially attractive risk-adjusted returns.
- We would also note that the growth of ESG scoring methodologies by ratings agencies is consistent with our long-held view that RI factors remain critically important to the overall investment process.
- Private credit markets remain supported by healthy fundamentals. Liquidity premiums remain an attractive way to enhance income across corporates as well as select structured finance transactions, project finance and credit tenant lease deal flow.

Risks to our outlook

- Stronger-than-expected economic growth and inflation would work against our longer-duration, higher quality bias positioning.
- Additionally, a reigniting of trade issues and/or a stronger U.S. dollar would create a challenging backdrop for emerging markets debt and risk assets generally.

BEST IDEAS: *Focus on diversification to generate income using flexible multisector strategies. We are particularly favorable on select emerging markets hard currency bonds.*

MUNICIPALS

Fundamentals and technicals look attractive

John Miller

Opportunities and positioning

- The municipal market has shown strong performance in 2019. Municipal-to-U.S. Treasury yield ratios declined steadily in the first half of the year, but jumped in September due to a surge in supply. Ratios now sit around their long-term averages. It is possible ratios could ultimately move lower as we head into 2020, since January typically experiences a lighter supply environment coupled with inflows.
- Credit fundamentals are still extremely stable and marginally improving year to date. Credit spreads have been stable in the aggregate, and overall municipal credit quality remains sound. Defaults remain low and are dominated by idiosyncratic project risks rather than systemic risk. And credit upgrades consistently exceed downgrades.
- Beyond fundamental factors, municipal bonds look attractive from a technical perspective: Demand is strong and supply is tight. Municipal fund flows have been at record highs this year. We also expect net negative new issuance in 2020, which should further benefit municipals from a technical perspective.

Risks to our outlook

- The biggest risks we see for municipals is a reversal in accommodative monetary policy. Additionally, investors always need to be on the lookout for possible credit events (which is why we think an intense focus on credit research remains warranted). Finally there is some concern that segments of the municipal market may be overvalued, but we think ample opportunities remain available, especially for those investors who can benefit from the after-tax advantages of municipals.

BEST IDEAS: *High yield municipals look attractive given their income advantage and low correlation to other asset classes. This area of the market may benefit from spread contraction and sector-specific factors such as opportunities in land-secured bonds, which look particularly appealing as active first-time buyers keep inventories low.*

REAL ESTATE

Focus on diversification and stable income

Mike Sales

Opportunities and positioning

- Global economic and region-specific risks such as Brexit appear to have receded. And the two main risks for real estate markets (oversupply and excessive debt levels) do not appear present. We continue to see value in real estate markets, especially in terms of income generation.
- Pockets of the retail market are proving unloved by occupiers and investors alike, with changes in consumer patterns, e-commerce and technological advancements challenging how, where and when we consume. The office sector is adapting to the growing presence of flexible space operators and a more discerning tenant base; but overall demand and real estate performance has been challenged by economic headwinds and limited development.
- We continue to favor defensive growth areas that produce solid income. In particular, we like alternative real estate sectors such as medical technology locations (which benefit from a global aging population), data centers (which should benefit from the launch of 5G networks) and multifamily housing (as co-living trends are on the rise).
- Across all sectors, we are putting environmental sustainability at the forefront of our investment strategies.

Risks to our outlook

- Risks of an unexpected rise in interest rates have waned. But a material economic slowdown would hurt real estate.
- We are also focused on political risks associated with the U.S. elections that could result in additional rent or commercial property regulations. Regulatory changes in some European housing markets could also present risks.

BEST IDEAS: *A consistent theme is investing in a wide range of "global cities" that offer scale, growth, sustainability and resilience. In the U.S., we like niche sectors, such as life sciences and data centers. In Europe, we are focused on housing, student accommodation and impact investing.*

PRIVATE AND PUBLIC REAL ASSETS

Sticking with defensive positioning

Justin Ourso

Jay Rosenberg

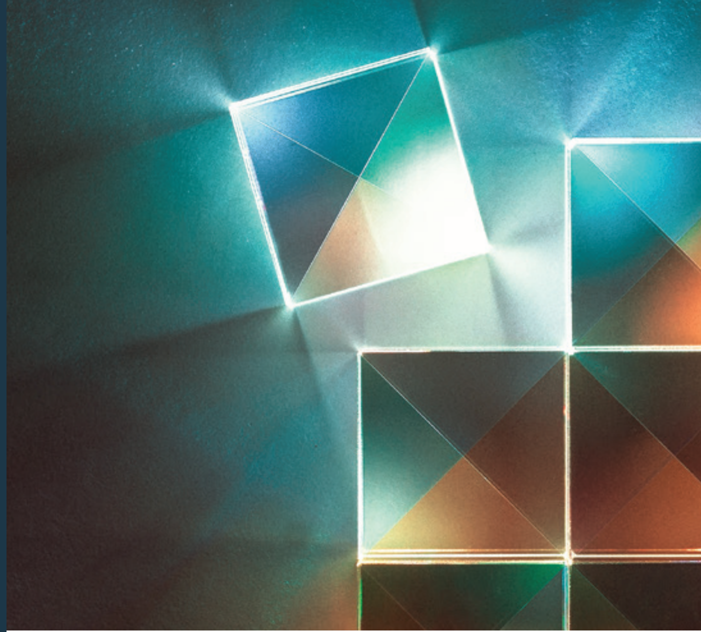
Opportunities and positioning

- The broad macro backdrop continues to look somewhat challenging for both public and private real assets. Easier global monetary policy has been promoting additional liquidity, which has been a plus. But slow global growth means that downside risks remain relatively high. Geopolitical uncertainty (including in the Middle East, Hong Kong and Chile) has added to volatility.
- As such, we think it makes sense to focus on more defensive areas of the real assets market. In the public markets, defensive growth areas look more attractive than more cyclical sectors. REITs and listed infrastructure have performed well in 2019, and have income and stability characteristics that should continue to appeal to investors. We have an especially favorable view toward the logistics and data center industries.
- Within public infrastructure, we like utilities and toll roads, and prefer more highly regulated utility companies with no or low exposure to commodity prices.
- On the private real assets side, farmland and timberland asset values remain supported by low global interest rates. Issues such as trade volatility, the multiyear drought in Australia and the expansion of African Swine Flu in Asia require investors to approach these asset classes with careful selectivity, however.
- Although we continue to be constructive on agribusiness private equity generally, broad valuations appear rich with debt levels creeping higher. Discipline and sourcing remain critical.
- Broadly speaking, we see solid opportunities in impact investing, as investors are increasingly focusing on finding investment solutions to social and environmental challenges. For example, we are pursuing investment options in infrastructure-related renewable energy generation and storage facilities as well as private equity investments in inclusive growth and resource efficiency.

Risks to our outlook

- Rising interest rates would work against defensive positioning in the public real asset space. Likewise, stronger-than-expected growth would boost the more cyclical areas of the market.
- Additionally, trade issues continue to represent risks across all real assets. We think ongoing uncertainty on this front will likely mean that market volatility will remain elevated.

BEST IDEAS: *We are positive on toll roads in politically stable environments that have solid traffic patterns, such as in Australia and France. We also like regulated utilities, especially those with electricity transmission exposure that will continue to benefit from increasing investment demand. On the private side, we are finding good opportunities in agricultural investments focused on sustainability and healthier diets, as well as purpose-driven private equity investments in financial services, education and health care focused on underserved consumers.*



Portfolio construction views

Nuveen's Solutions team draws on inputs from the Global Investment Committee as well as its own research to construct asset class views that assess risk-adjusted return opportunities for the next six to 12 months. These forward-looking views are offered to help drive allocation positioning within diversified portfolios designed for longer-term, total return investors.

Frank van Etten
Asset Allocation and Solutions

Asset allocation highlights

- We are **taking on more risk in select asset classes balanced by broader defensive positioning**.
- In equity markets, consistent with that broader defensive posture, we think **growth is still a better bet than value** and have a clear **bias toward large caps over small caps**. We are **more positive on non-U.S. developed equity markets**, which offer attractive valuations. While both non-U.S. developed and emerging equity markets stand to benefit from stabilization or improvement in trade risk, we maintain a neutral view in emerging markets as a result of additional geopolitical risks.
- Within fixed income, **we are comfortable with more duration risk than credit risk,** and a more normalized yield curve has caused us to drop our views on short-term fixed income by a notch. We **prefer allocations to investment grade credit over other U.S. credit sectors** and **remain positive on emerging markets debt** investments. At the same time, we think loans and non-U.S. developed fixed income markets are starting to offer more fair value, so this may be an opportune time to consider adding back exposure.
- We **prefer longer duration and higher yielding areas of the municipal markets**, as fundamentals remain sound and default risks appear low.
- **Alternatives can provide solid income and capital appreciation opportunities as well as expanded diversification potential**. Given the wider range of returns, the hunt for idiosyncratic risk to meet overall portfolio goals and targets remains critical. This is particularly so in the later stages of the economic cycle, so research and selectivity appear key.

	Negative		Neutral		Positive
Equity					
U.S. Equity			○		
Large cap growth				●	
Large cap value			○		
Small cap		●			
Non-U.S. equity					
Developed				●	
Emerging markets			○		
U.S. fixed income					
Short-term				●	
Aggregate fixed				●	
Inflation-linked (TIPS)			○		
Investment grade corporates				●	
High yield corporates		●			
Senior loans			○		
Preferred securities		●			
Securitized assets				●	
Investment grade municipals			○		
High yield municipals				●	
Non-U.S. fixed income					
Developed			○		
Emerging markets				●	
Alternatives					
U.S. REITs			○		
Global private real estate				●	
U.S. farmland			○		
Private equity			○		
Private credit				●	

Upgrade from last quarter *Downgrade from last quarter*

The views above are for informational purposes only and relate to cross-asset views only (a comparison of the relative merits of each asset class). These do not necessarily reflect the experience of any Nuveen product or service.

Investing in 2020: Diversification carries the day

In many cases, investors have been reacting to uncertainty by moving large parts of their portfolios to cash. We disagree with this approach. Instead, we favor **broadening market exposures to more opportunities and risks**. Put another way: **Diversification is our highest-conviction trade idea**. Reaching long-term objectives is already hard in today's low-yield environment. And given that we think investors need to lower their return expectations, **overallocating to cash now is only making the challenge harder**.

We believe **investors should be staying invested to reach their goals**. We have much higher conviction that conscious asset allocation decisions and careful security selection are better ways to reach long-term goals than tactical moves in and out of cash. In our view, **diversification is about much more than simply having a combination of assets with low correlations in a portfolio**. It includes diversity of research, idea generation, time horizons, assets, sectors, themes, managers, styles, approaches, factors, views, geographies and investment policies.

Proper portfolio construction is complicated. But we hope the ideas expressed in our 2020 Outlook can help our clients better structure their investment portfolios.

About Nuveen's Global Investment Committee

Nuveen's Global Investment Committee (GIC) brings together the most senior investors from across our platform of core and specialist capabilities, including all public and private markets. Quarterly meetings of the GIC lead to creation of published outlooks that offer 1) macro and asset class views where there is consensus among our investors 2) insights from thematic "deep dive" discussions by the GIC and guest experts (markets, risk, geopolitics, demographics, etc.) 3) guidance on how to turn our insights into action via commentary from the Global Investment Committee and Nuveen's Solutions team.

For more information, please visit nuveen.com

Endnotes

Sources

All market and economic data from Bloomberg, FactSet and Morningstar.

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Such information may include, among other things, projections, forecasts, estimates of market returns, and proposed or expected portfolio composition. Any changes to assumptions that may have been made in preparing this material could have a material impact on the information presented herein by way of example. **Past performance is no guarantee of future results.** Investing involves risk; principal loss is possible.

All information has been obtained from sources believed to be reliable, but its accuracy is not guaranteed. There is no representation or warranty as to the current accuracy, reliability or completeness of, nor liability for, decisions based on such information and it should not be relied on as such.

Glossary

The **MSCI All Country World Index** is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed and emerging markets. The **Bloomberg Barclays Global Aggregate Index** is a flagship measure of global investment grade debt from 24 local currency markets. The **S&P 500** is widely regarded as the best single gauge of large-cap U.S. equities. The index includes 500 leading companies and captures approximately 80% coverage of available market capitalization. The **Bloomberg Barclays High Yield Corporate Bond Index** measures the USD-denominated, high-yield, fixed-rate corporate bond market. The **Bloomberg Barclays Municipal Bond Index** covers the USD denominated long-term tax-exempt bond market.

A word on risk

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. These risks may be magnified in emerging markets. Diversification is a technique to help reduce risk. There is no guarantee that diversification will protect against a loss of income. Investing in municipal bonds involves risks such as interest rate risk, credit risk and market risk, including the possible loss of principal. The value of the portfolio will fluctuate based on the value of the underlying securities. There are special risks associated with investments in high yield bonds, hedging activities and the potential use of leverage. Portfolios that include lower rated municipal bonds, commonly referred to as "high yield" or "junk" bonds, which are considered to be speculative, the credit and investment risk is heightened for the portfolio. Credit ratings are subject to change. AAA, AA, A, and BBB are investment grade ratings; BB, B, CCC/CC/C and D are below-investment grade ratings. 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. Socially Responsible Investments are subject to Social Criteria Risk, namely the risk that because social criteria excludes securities of certain issuers for non-financial reasons, investors may forgo some market opportunities available to those that don't use these criteria. Investors should be aware that alternative investments including private equity and private debt are speculative, subject to substantial risks including the risks associated with limited liquidity, the use of leverage, short sales and concentrated investments and may involve complex tax structures and investment strategies. Alternative investments may be illiquid, there may be no liquid secondary market or ready purchasers for such securities, they may not be required to provide periodic pricing or valuation information to investors, there may be delays in distributing tax information to investors, they are not subject to the same regulatory requirements as other types of pooled investment vehicles, and they may be subject to high fees and expenses, which will reduce profits. Alternative investments are not suitable for all investors and should not constitute an entire investment program. Investors may lose all or substantially all of the capital invested. The historical returns achieved by alternative asset vehicles is not a prediction of future performance or a guarantee of future results, and there can be no assurance that comparable returns will be achieved by any strategy.

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