



NEUBERGER BERMAN



OUR INVESTMENT PLATFORM

BREADTH OF INDEPENDENT PERSPECTIVES ACROSS ASSET CLASSES

	FIRM ASSETS UNDER MANAGEMENT \$339bn ¹		
	EQUITY	FIXED INCOME	ALTERNATIVES
AUM	\$101bn	\$154bn	\$93bn AUM and Committed Capital
INVESTMENT PROFESSIONALS	223	173	175
FUNDAMENTAL	Global, EAFE U.S. Value, Core, Growth Emerging Markets, China Global Thematic, Disruptive Themes Sustainable Equity Income Strategies: – MLPs – REITS	Global Investment Grade Global Non-Investment Grade Emerging Markets, Regional EM, China Multi-Sector, Opportunistic Municipals Specialty Strategies: – CLO Mezzanine – Currency – Corporate Hybrids	Private Equity:Hedge Funds:- Primaries- Multi-Manager- Co-Investments- Equity Long/Short- Secondaries- Event Driven- Specialty Strategies- Co-Investments- Minority stakes in alternative firms - DyalInsurance-Linked- Private Credit:Insurance-Linked- Residential Loans- Special Situations- Specialty Finance- Specialty Finance
QUANTITATIVE	Global U.S. Emerging Markets Custom Beta		Risk Premia Options Global Macro Commodities

MULTI-ASSET CLASS SOLUTIONS AND STRATEGIC PARTNERSHIPS

FUNDAMENTAL

Global Relative and Absolute Return Income Focused Inflation Management QUANTITATIVE

Global Tactical Asset Allocation

Risk Parity

¹ As of September 30, 2019. Firm assets under management (AUM) includes \$101.3 billion in Equity assets, \$154.2 billion in Fixed Income assets and \$83.4 billion in Alternatives assets. Alternatives "AUM and Committed Capital" includes assets under management for non-Private Equity businesses and Committed Capital since inception for the Private Equity businesses. Committed Capital since inception reflects all contractual commitments, including those still in documentation, to fund investments, including those which have since been realized, advised by NB Alternatives Advisers LLC and its affiliates or predecessors (the oldest mandate of which was founded in 1981).



TEN FOR 2020

The heads of our investment platforms identified the key themes they anticipate will guide investment decisions in 2020. These 10 themes are summarized below and discussed in more detail in the CIO Roundtable beginning on page 5.

MACRO: "FISCAL DYSFUNCTION" UNMASKED

1 POLITICAL RISK MOVES INTO THE DRIVER'S SEAT

Political risk and "fiscal dysfunction"—the lack of fiscal policy to match the economic environment—will not be new to 2020. But with a U.S. election added to the mix and central banks less able to mask this dysfunction, next year these risks could emerge as the primary drivers of market volatility and value opportunity.

2 MONETARY POLICY REACHES ITS LIMITS

Central bank policies face growing skepticism, and in any case there appears to be little they can do to intervene and address the political concerns likely to be driving markets in 2020. Bouts of volatility appear set to continue, then, and they may be more prolonged than we have become used to over the past few years.

3 ANOTHER YEAR WITHOUT RECESSION, BUT RISKS ARE RISING

We think the risk of a U.S. or global recession in 2020 remains low to moderate, but the probability of recession in 2021 is rising, and there is greater fragility in the world outside the U.S. Markets have often discounted a recession six to nine months in advance, and if this is the case, the probability distribution of full-year returns for 2020 is getting wider.

LOOK FOR A REVIVAL IN BUSINESS SENTIMENT

"Soft" data such as Purchasing Managers' Indices have shown business confidence deteriorating out of proportion to the "hard" data. At some point, however, low unemployment, resilient consumer spending and progress on trade could overcome political uncertainty, turn business sentiment around and unleash pent-up investment.

FIXED INCOME: U.S. MARKETS AND QUALITY YIELD

FED-ECB RATES CONVERGENCE MAKES U.S. BONDS MORE ATTRACTIVE

With the European Central Bank unlikely to go much further negative with rates and the Federal Reserve more likely to cut than hike, hedging U.S. dollar risk will likely become less costly. The ability to hedge more cost-effectively could encourage flows away from euro and into U.S. dollar bond markets.

6 BIFURCATION CONTINUES IN CREDIT

Investors are still stretching for yield, but they are increasingly trying to do so with a measure of "safety." In high yield, CCC issues have underperformed BBs and that is likely to continue into 2020.

EQUITIES: VOLATILITY AND ROTATION

7 LONGER BOUTS OF VOLATILITY CREATE VALUE

In 2019, volatility was caused by growth concerns and quickly calmed by central banks. The political uncertainties of 2020 will likely take longer to resolve and could trigger sell-offs similar in scale to that of Q4 2018. Against a background of stable economic data, these could present prolonged value opportunities at the market index level.

8 ACTIVE OPPORTUNITIES FLOW BENEATH THE SURFACE

Independent of value opportunities at the market index level, the modest level of broad economic growth will likely encourage investors to focus more on company fundamentals. A reversal in longstanding trends beneath the surface of the index is also possible: from larger to smaller companies, from growth to value, and from defensives to cyclicals—at stock, sector and regional levels.

ALTERNATIVES: LATE-CYCLE STARS

9 PRIVATE MARKETS INVESTING COMES INTO ITS OWN

When valuations are full, private markets investing generally offers more opportunity to enhance a business's earnings and mitigate valuation risk; it encourages a long-term view that looks through the cycle; and its multi-year investing period means capital gets deployed through a possible future downturn, potentially picking up attractively valued assets.

1 () VOLATILITY COULD MEAN VAST OPPORTUNITY FOR LIQUID ALTERNATIVES

A well-diversified set of liquid alternative strategies could help smooth a bumpy ride in 2020. Volatility could feed into uncorrelated returns from niches away from the traditional markets, short-term trading and relative-value opportunities between asset classes or within capital structures.







JOSEPH V. AMATO | PRESIDENT AND CHIEF INVESTMENT OFFICER—EQUITIES BRAD TANK | CHIEF INVESTMENT OFFICER—FIXED INCOME ASHOK BHATIA, CFA | DEPUTY CHIEF INVESTMENT OFFICER—FIXED INCOME ERIK L. KNUTZEN, CFA, CAIA | CHIEF INVESTMENT OFFICER—MULTI-ASSET CLASS ANTHONY D. TUTRONE | GLOBAL HEAD OF ALTERNATIVES

FOR 2020

CIO ROUNDTABLE

"FISCAL DYSFUNCTION" UNMASKED

As 2019 draws to a close, the leaders of our investment platforms gathered to talk about the evolution of the investment environment over the past 12 months and the key themes they anticipate for 2020.

Erik Knutzen: The current cycle has now become the longest in modern U.S. history. It seems reasonable to begin our discussion by asking, can we expect another full calendar year of expansion in 2020?

Ashok Bhatia: The view from the Fixed Income team is that 2020 will be another year without a recession, globally or in the U.S., but it's a tougher call this time around. Our big call last year was that we'd get a soft landing in 2019, which was pretty bold when you recall the extent of the market volatility and the fears around growth at the time. That turned out to be correct. Next year is likely to see more of the same, but the probability distribution for our potential end point at the end of the year, whether that's GDP growth or market returns, is substantially wider.

Knutzen: In our view, the risk of recession in 2020 remains low-tomoderate, but the risk of recession in 2021 and beyond is meaningfully increasing. Since recessions can begin to be priced into markets with a six- to nine-month lead, the likelihood that recession gets priced in during 2020 is rising, even if the economy continues to grow. The stumbling blocks do appear to be getting higher. There's the potential for China's growth to surprise on the downside, and dampen global sentiment and demand. The major central banks appear to acknowledge that monetary policy is nearing the limits of effectiveness, but there are few signs that governments are ready to take over with fiscal stimulus. And the ongoing Brexit saga, the worsening political standoff in Hong Kong and a U.S. election year with impeachment headlines swirling will not be good for confidence or business certainty. **Joseph Amato:** It's notable that many of these stumbling blocks have more to do with sentiment than fundamentals. Through 2019 we've had a big divergence between what the "soft" survey-derived data is telling us and what the "hard" data on real economic activity is telling us. The decline in Purchasing Managers' Indices caused a lot of panic but, ultimately, U.S. GDP settled around the post-crisis trend. Everyone is obsessed with the Boogeyman in the closet, but they keep opening that closet and there's no Boogeyman in there. If growth continues to hold up, as we anticipate, it's possible that business leaders will eventually get comfortable enough to start investing again and we could see a re-convergence of the soft and hard data next year.

Bhatia: One possible scenario for 2020, for sure, is that the market wakes up to the fact that the world is in much better shape than it appears to be. We wouldn't want to understate the scale of Europe's manufacturing and exports slowdown, which puts it at greater risk of recession than the U.S. That slowdown is clogging up the engine that has driven the region's growth for a generation. But as our colleagues in European Fixed Income point out, for the first time in a long while the major challenges facing their region are external rather than internal ones, and the potential for the release of some pent-up capital expenditure is there now that output gaps have closed. Worldwide, the consumer looks resilient. Unemployment in the U.S. and Europe is lower than it has been in decades. The U.S. and China look set to come to some sort of agreement on trade—which would greatly improve sentiment in Europe's manufacturing hubs. Add some easing of a few geopolitical tensions and sentiment could improve significantly. Having said all

that, 2020 will bring one important new dynamic that could weigh on sentiment a lot, which, as Erik mentioned, is the U.S. election campaign, potentially with an impeachment process thrown in for good measure.

Amato: We've all seen the data showing that a recession has been much more likely in the 12 months following a U.S. presidential election than it has been in a typical year. That correlation must reflect the business uncertainty around tax and regulation that an election throws up: investment gets delayed, which shows up as lower growth 12 months later. It just adds more to what I would call a general sense of "fiscal dysfunction." Central banks are being forced into increasingly extreme policy because governments are generally not getting things done and specifically not making the fiscal decisions appropriate to the current environment. But again, there's a strong argument that sentiment around these things is overblown. The prospect of a progressive Democrat in the White House and a Democrat-controlled Senate seems to worry market participants a lot but, whatever your politics, the likelihood is that three-quarters of what investors fear will never get done. Similarly, there's no doubting that Brexit is a big bump in the road, but it's not the end of the world. Fundamentally, as we've seen, growth continues to tick over. And that means the sentiment around fiscal dysfunction has the potential to create value opportunities.

Bhatia: I think that's right, and I'd add that the volatility in 2020 could feel different from the volatility of recent years. As you point out, fiscal dysfunction is not a new phenomenon. Germany and other northern European countries arguably should not have been running such austere, balanced budgets for the past nine years. The U.S. arguably should not have given out a tax cut with one hand and then waged disruptive trade wars with the other. But all the time you have a background of decent growth and central banks holding rates at zero and intervening aggressively in the markets, you can get away with that fiscal dysfunction because it gets masked.

Knutzen: With growth stabilizing at a low, post-crisis trend line, it feels as though we need to move from monetary stimulus to fiscal stimulus. The Fed isn't clear how much it should ease or even whether it should ease at all. The European Central Bank (ECB) doesn't appear to have much more appetite for negative interest rates and the return to asset purchases has been very controversial. But there are only very tentative signs that the governments that have the fiscal space to spend are ready to step up to the plate. We may have to wait until 2021 or beyond for

that, which could leave us caught in a void between monetary stimulus and fiscal stimulus during 2020.

Amato: If governments are not going to support demand, won't that force central banks to keep the spigots open?

Brad Tank: The Fed and the ECB will be there. Accommodative policy will remain in place. But in the event of nothing happening on the fiscal front and growth plodding along the trend line, will the ECB go deeper below zero and the Fed put in two more rate cuts? Our answer is no. At this year's annual meetings of the World Bank and International Monetary Fund in October, one of the strongest messages we got from the emerging markets central bankers we met was the level of frustration they feel at this combination of fiscal inaction, lack of structural reform and recklessly extreme monetary policy in the developed world. They really feel it is threatening the stability their countries have achieved by implementing structural reforms and orthodox central banking. Line that up with the growing body of academic and practitioner opinion that the stimulus from negative rates is outweighed by the disruption it causes financial intermediaries, and you could have serious pushback against that policy tool.

Bhatia: This is why next year's volatility will feel different. When investors' main concern was growth and central banks had the capacity to intervene decisively, there was a reaction function: the central banks came in, and markets were immediately able to discount that years into the future, so things stabilized quickly. When investors' main concern is whether governments are going to move into the gap left by central banks, and the answer is uncertain because Germany has to run a balanced budget, or because Brexit could rumble on for months or even years, or because a progressive Presidential candidate is storming away in the polls, the situation is very different. As Joe says, these things are likely to resolve themselves eventually, but the uncertainty is there until Germany works out a new fiscal measure, until the E.U. and the U.K. sign a trade agreement, or until the election is over. The result is likely to be volatility as violent as what we experienced in Q4 of 2018, but potentially more prolonged. The good news for long-term investors, as Joe suggested, is that deeper pockets of value could open up. And they could open up for longer, so we likely won't have to trade frantically over five days to lock in a few extra points of yield or return potential. We see opportunities to build positions when sentiment around these political risks turns excessively negative during 2020.

FIXED INCOME: U.S. MARKETS AND QUALITY YIELD

Bhatia: Brad has mentioned the pushback against negative interest rates. We think that removes the tail risk of the Fed going negative during the next downturn. It also increases the probability that the ECB is reaching its limit with negative rates. That is significant because negative rates have been a major influence on bond market flows. All the time euro zone rates were falling and U.S. dollar rates were rising, it was getting more and more costly to hedge U.S. dollar risk out of portfolios and more and more remunerative to hedge euro risk. The result was a substantial relative flow away from dollar assets. One of the things we've been very focused on in client portfolios is the potential reversal of some of those flows should the Fed make insurance cuts while the ECB stays put. Building fixed income portfolios with an eye to general capital appreciation from lower policy rates may see limited returns, but capital appreciation in U.S. credit markets is certainly possible should we see these flow reversals.

Tank: Investors focused on European markets can still find value in euro high yield, where fundamentals remain solid and there is technical support coming from the European Central Bank's asset purchases, a muted M&A pipeline and "rising stars" moving up out of the high yield index. For global credit portfolios, however, after favoring European and emerging market assets over recent years, we take a more positive view on the U.S. for 2020. Our second theme is our belief that winners will continue to win and losers will continue to lose in credit markets. Quality is likely to continue to outperform in 2020. In emerging markets we've had idiosyncratic events in high-yielding places like Turkey, Argentina and Brazil, where the bonds lost value and then didn't recover. In high yield, BBs and better-quality issuers have performed well relative to CCCs. Non-financial hybrids are an interesting opportunity in the European market. Investors are seeking out higher income than they can get in investment grade, but they are concerned that it should come with a measure of "safety." That is likely to continue into 2020.

EQUITIES: VOLATILITY AND ROTATION

Amato: We think that 2020 could be a very interesting year for active management. There are increasingly signs of life in the hard economic data that will generate an interesting opportunity to put risk on. Now, the U.S. market looks fully valued, but that is where the dynamics around sentiment, fiscal dysfunction and the deeper, longer bouts of volatility we have been talking about come into play. Is it possible we could get a U.S. equity sell-off on a similar scale to that of Q4 2018, despite stabilizing fundamental data? Yes, a 5 - 10% correction is certainly foreseeable if we see the election polls going a certain way. The other implication of our belief that global growth will stabilize in 2020 is the potential for a return to the value-versus-growth trade that we saw, briefly, in September 2019. That also has regional implications: Europe, Japan and the emerging markets are perceived to be more cyclical than the U.S., where manufacturing now accounts for just 12% of GDP. Given very low expectations for those regions and factors, there may be opportunity to put risk on the table.

Tank: It's worth pointing out that a lot of this fits with the view from our own Emerging Markets Debt team, which just held its quarterly off-site: they think major central bank easing is almost behind us but that the effects are still coming through; they believe growth will bottom-out and stabilize from here on, and because there is still a lot of bad news priced in, they are beginning to take a more positive view on emerging markets currencies versus rates. And although we are still believers in investing in quality in credit, a better backdrop for emerging markets may create some specific opportunities in the higher-yielding sovereigns and credits that struggled in 2019.

Knutzen: This has been a central theme at the two most recent meetings of our Asset Allocation Committee. At the last meeting, the Committee's view moved to a moderate overweight view on the U.S. versus the rest of the world, reflecting shorter-term sentiment weakness around manufacturing. Beneath the surface, however, members were looking more favorably on smaller companies, value stocks and cyclical sectors, due to relatively attractive valuations and the potential for a reversal of longstanding trends in favor of large-cap growth and defensive stocks.

ALTERNATIVES: LATE-CYCLE STARS

Knutzen: We've talked about how we think that 2020 is likely to be characterized by prolonged episodes of market volatility despite an underlying stabilization in the fundamental data. Long-term value opportunities will materialize from that, but portfolios will still require some ballast to help mitigate the volatility, and investment-grade fixed income remains too low-yielding to provide it. This is where a well-diversified set of liquid alternative strategies can perform a key function. Collateralized put option writing can generate equity exposure with dampened volatility. Shorterterm trading strategies can add nimbleness to navigate choppy markets, long and short. Relative value approaches can seek out returns between asset classes or within capital structures, with broader market volatility hedged out. And uncorrelated strategies, whether they are harvesting alternative risk premia or working in niches such as insurance-linked opportunities, can also help generate returns away from the ups and downs of the traditional markets.

Anthony Tutrone: Listening to the discussion, I'd have to say that private markets investing sits very well in the scenario we are describing. We think that valuations are high, and we think we are most likely late in the cycle—we do not expect a recession in 2020 but it's becoming a risk for 2021. We also anticipate more volatility. Well, the best-performing private equity vintages have often been those raised late in the cycle, because the capital committed at that point gets invested over the subsequent two to three years, when asset valuations are falling. But even with those vintages that are investing now, it's worth remembering that majority or sole owners have more opportunity to enhance their portfolio businesses to grow earnings, thereby offsetting the higher valuations they are paying at this stage in the cycle. When it comes to volatility, private markets investing helps because it simply forces you to think more long-term about value creation. When your investment time horizon is five or more years, waiting another six months for a good exit is not such a big deal. This makes it much easier to underwrite investments through the business cycle: less liquid, multi-year commitments are more shielded from the ebb and flow of market sentiment and from our own tendencies to react to that sentiment.

Knutzen: Are there structural changes going on in private markets that we might see more evidence for in 2020?

Tutrone: Absolutely. Private markets are a disruptive force in investing right now. A lot of this is due to the regulatory and capital constraints surrounding insurance companies and banks, the traditional intermediaries and underwriters. Investors are increasingly underwriting reinsurance risks via private insurance-linked markets, for example, to supplement the regulatory- and rating-constrained capital of the insurance industry. More and more debt issuers are recognizing the extra flexibility and timeliness they can get from private lenders, and new markets, such as direct small-business and mortgage lending, are opening up to investors. The number of listed companies is shrinking as business owners and capital providers recognize the advantages of going or remaining private, while secondary markets in private funds and assets become increasingly active, making illiquid assets just a little more liquid. Of course, as with all disruption, not everything is positive. Much of the "unicorn" phenomenon has been driven by new entrants to the market: very little of the money that has been pushing valuations up in the later rounds of capital raising for these big private businesses has come from traditional venture capital firms, and while some of these investors are very sophisticated, a lot are simply attempting to arbitrage public-to-private valuations. It is also important to note that, in addition to unrealistic valuations, in our opinion some of these failed IPOs reflect flawed business models. The implication is that much later-stage venture is unattractive-but as we have seen from some high-profile IPO failures in 2019, this is correcting even as we speak.

This material is provided for informational purposes only and nothing herein constitutes investment, legal, accounting or tax advice, or a recommendation to buy, sell or hold a security. This material is general in nature and is not directed to any category of investors and should not be regarded as individualized, a recommendation, investment advice or a suggestion to engage in or refrain from any investment-related course of action. Neuberger Berman is not providing this material in a fiduciary capacity and has a financial interest in the sale of its products and services. Neuberger Berman, as well as its employees, does not provide tax or legal advice. You should consult your accountant, tax adviser and/or attorney for advice concerning your particular circumstances. Information is obtained from sources deemed reliable, but there is no representation or warranty as to its accuracy, completeness or reliability. All information is current as of the date of this material and is subject to change without notice. Any views or opinions expressed may not reflect those of the firm as a whole. Neuberger Berman products and services may not be available in all jurisdictions or to all client types. Investing entails risks, including possible loss of principal. Investments in hedge funds and private equity are speculative and involve a higher degree of risk than more traditional investments. Investments in hedge funds and private equity are intended for sophisticated investors only. Indexes are unmanaged and are not available for direct investment. **Past performance is no guarantee of future results**.

The views expressed herein include those of the Neuberger Berman Multi-Asset Class (MAC) team and Neuberger Berman's Asset Allocation Committee. The Asset Allocation Committee is comprised of professionals across multiple disciplines, including equity and fixed income strategists and portfolio managers. The Asset Allocation Committee reviews and sets long-term asset allocation models, establishes preferred near-term tactical asset class allocations and, upon request, reviews asset allocations for large diversified mandates. The views of the MAC team or the Asset Allocation Committee may not reflect the views of the firm as a whole, and Neuberger Berman advisers and portfolio managers may take contrary positions to the views of the MAC team or the Asset Allocation Committee. The MAC team and the Asset Allocation Committee views do not constitute a prediction or projection of future events or future market behavior. This material may include estimates, outlooks, projections and other "forward-looking statements." Due to a variety of factors, actual events or market behavior may differ significantly from any views expressed.

The duration and characteristics of past market/economic cycles and market behavior, including any bull/bear markets, is no indication of the duration and characteristics of any current or future be market/economic cycles or behavior. 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 or any historical results.

A bond's value may fluctuate based on interest rates, market conditions, credit quality and other factors. You may have a gain or a loss if you sell your bonds prior to maturity. Of course, bonds are subject to the credit risk of the issuer. If sold prior to maturity, municipal securities are subject to gain/losses based on the level of interest rates, market conditions and the credit quality of the issuer. Income may be subject to the alternative minimum tax (AMT) and/or state and local taxes, based on the investor's state of residence. High-yield bonds, also known as "junk bonds," are considered speculative and carry a greater risk of default than investment-grade bonds. Their market value tends to be more volatile than investment-grade bonds and may fluctuate based on interest rates, market conditions, credit quality of tax-exempt investments in your portfolio. Government bonds and Treasury bills are backed by the full faith and credit of the United States Government as to the timely payment of principal and interest. Investing in the stocks of even the largest companies involves all the risks of stock market investing, including the risk that they may lose value due to overall market or economic conditions. Small- and mid-capitalization stocks are more vulnerable to financial risks and other risks of larger companies. They also trade less frequently and in lower volume than larger company stocks, so their market prices tend to be more volatile. Investing in foreign securities involves greater risks than investing in securities of U.S. issuers, including currency fluctuations, interest rates, potential political instability, restrictions on foreign investors, less regulation and less market liquidity. The sale or purchase of commodities is usually carried out through futures contracts or options on futures, which involve significant risks, such as volatility in price, high leverage and illiquidity.

This material is being issued on a limited basis through various global subsidiaries and affiliates of Neuberger Berman Group LLC. Please visit www.nb.com/ disclosure-global-communications for the specific entities and jurisdictional limitations and restrictions.

The "Neuberger Berman" name and logo are registered service marks of Neuberger Berman Group LLC.

©2019 Neuberger Berman Group LLC. All rights reserved.

FIRM HEADQUARTERS

New York 800.223.6448

REGIONAL HEADQUARTERS

Hong Kong +852 3664 8800 London +44 20 3214 9000 Tokyo +81 3 5218 1930

OFFICES

West Palm Beach Wilmington

AMERICAS EUROPE, ASIA PACIFIC **MIDDLE EAST** Atlanta Beijing & AFRICA Bermuda Hong Kong Bogota Dubai Melbourne Boston Dublin Seoul **Buenos** Aires Frankfurt Shanghai Chicago London Singapore Dallas Luxembourg Sydney Los Angeles Madrid Taipei New York Milan Tokyo San Francisco Paris Sao Paulo Rome Tampa The Hague Toronto Zurich

PORTFOLIO MANAGEMENT CENTERS

Atlanta	Los Angeles	
Beijing	Milan	
Bermuda	New York	
Boston	Paris	
Buenos Aires	San Francisco	
Chicago	Shanghai	
Dallas	Singapore	
Hong Kong	The Hague	
London	Toronto	

NEUBERGER BERMAN

Neuberger Berman

1290 Avenue of the Americas New York, NY 10104-0001

www.nb.com