Global Market Snapshot

Key Market/Economic Observations

United States

Volatility Returns to U.S. Markets; Investors Try to Balance the Future Path of Federal Reserve (Fed) Rate Hikes

- U.S. stocks posted their first monthly loss since March, down 9.3% through October 29. The S&P 500® fluctuated downward toward correction territory, at one point giving up all of its year-to-date gains. Prior to October 10, U.S. stocks had been unusually calm and had not posted a daily change of more than 1% since late June.
- Many investors were quick to pin recent losses on rising interest rates, fresh concerns about trade tensions, and a pre-earnings season blackout on discretionary stock buybacks. In reality, it is hard to know the root cause of most corrections, but in this case it is likely a combination of these and other factors. Of the 45 recessions occurring across the Group of 7 (G7) economies since 1960, 65% were caused by a tightening of monetary policy.[1] This may be the most heavily weighted variable at the present time as well.
- In our view, nothing has fundamentally changed amid the market dip. The solid U.S. economic and earnings backdrop remains intact, and benefits from the Tax Cuts and Jobs Act likely remain a tailwind. That said, it is not unusual for markets to become jittery in the later stages of an economic cycle, especially today as the Fed removes unprecedented monetary accommodation. Adding in things like tariff concerns and midterm elections, we think an increase in volatility should be thought of as the rule rather than the exception.
- With this as our backdrop, the historical evolution of bull markets tells us that although volatility often increases, price appreciation also often accelerates in the market cycle's final stages. According to BCA Research, the final stages of the nine bull markets since 1966 have produced a cumulative return of almost 40%, bested only by the initial stage after a bear market where cumulative returns were over 60%.[2] In other words, a large portion of a typical bull market's return is earned in the initial and final stages. Given our view that 2019 will be another year of both economic and earnings growth, staying fully invested at this stage is our preference.
- U.S. real GDP growth remained strong and beat consensus estimates in the third quarter, rising at a 3.5% quarter-over-quarter annual rate. However, real private nonresidential fixed investment, also referred to as capital expenditures, was notably soft. The metric ticked up just 0.8% quarter over quarter after expanding 11.5% and 8.7% in the first two quarters of 2018, respectively. Some slowdown may be expected given the relatively rapid advance in the first half of 2018.
- We continue to believe the biggest risk to capital investment plans and by extension the current cycle, is a deterioration of corporate confidence. This drop is driven by lingering trade concerns and worries the Fed will raise rates too fast. We have not seen this play out in confidence indicators, but we continue to monitor the situation closely, particularly after the weaker investment data in the GDP report.
- As stock markets are tested, investor attention may turn to corporate earnings as a key driver

[1] The G7 consists of the seven most advanced and wealthiest economies in the world. Members are Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States. The president of the European Commission is also invited to participate.

[2] BCA uses the traditional definition of bull/bear markets of peak-to-trough or trough-to-peak price changes of more than 20%. In this analysis, BCA breaks each bull market into deciles based on length of the bull market in days. The first decile coming out of a bear market proves to be the strongest, followed by the tenth decile, which falls just prior to the next bear market.

of performance. Higher Treasury yields and a flattening yield curve have historically indicated less opportunity for expansion in the price-to-earnings (P/E) multiple; therefore, we believe equity market returns will be increasingly driven by earnings.

- Third-quarter earnings season is ramping up. Blended earnings growth of 19.4% (actual growth combined with consensus estimates) is tracking above the quarter-end consensus estimate of 19.1%. Blended revenue growth of 7.2% continues to edge higher as well, supported by strong upside surprises from the Financials and Consumer Staples sectors. Though more companies are reporting actual earnings per share (EPS) above estimates versus the five-year average, firms are beating estimates by a lower margin over the same time period. The key to individual stock performance this earnings season seems to be forward guidance. For example, on average, those companies reporting the week of October 22 with lowered fourth-quarter 2018 EPS estimates declined 6.18%, which was 224 basis points worse than the S&P 500's 3.94% decline.[3]
- Despite the recent run-up in Treasury yields, we believe rates are unlikely to move meaningfully higher in the near term. In fact, the rolling 60-day correlation between the S&P 500 and U.S. Treasury yields has turned negative. This change has historically preceded lower Treasury yields over the following 12 months. Finally, while a rising term premium could push yields briefly above current levels, we believe the expected terminal federal funds rate of 3.25% will serve as a tether on longer-dated yields, with the inflation expectations and growth components of nominal yields remaining relatively stable.
- Ultimately, it is important to keep in mind that the high return, low volatility environment of recent periods is unusual. As the spotlight starts to shift back towards fundamentals after an extended period of easy money, bouts of volatility should not be surprising.

Developed International Markets

Developed International Markets Not Immune to Downside Volatility; Italian Budget Concerns Serve as Latest Test to the European Union's (EU's) Resolve

- Developed international equity markets have not been immune to the pickup in downside volatility across U.S. markets over the last few weeks. The MSCI EAFE Index is down 9.5% for the month and 10.8% year to date as of October 29. Largely, the market sell-off has been equally distributed across developed markets. Most European exchanges have fallen to levels last seen in 2016 with more global trade-focused markets, like the German DAX and Japanese Nikkei 225, experiencing greater drawdowns.
- Over the past decade the divergence between U.S. and international stock prices has widened significantly, leading to similar differentials in relative valuations. For example, today the P/E ratio of the MSCI EAFE is 14.1 times (x) compared with 18.7x for the S&P 500 on a trailing 12-month basis. This relative valuation differential of -4.6x is well off its trailing 20-year median P/E differential of 0.2x. History has proven that divergences such as these tend to mean revert.[4] Therefore, since the divergence between U.S. and international stock market valuations is highly unlikely to repeat itself, we continue to advocate allocations to international equity markets.
- We are early into the European earnings season, with approximately one-third of companies having reported. Initial results have been underwhelming. Overall, 45% of Stoxx® Europe 600 companies have beat their EPS estimates, delivering 7% EPS growth. Revenue growth has come in at 4%, with 55% of companies beating estimates. Considering the relative attractiveness of valuations, European earnings growth

[3] The Earnings Scout, *Fourth Quarter Earnings per Share Guidance Update*. October 29, 2018.

[4] The theory of mean reversion suggests that asset prices or returns will go back to their long-run mean or average over time.

momentum is an area we continue to monitor for an inflection point. However, thus far both EPS and revenue beats are lower than historical averages.

- It is even earlier in the Japanese earnings season, but results look similar to their European counterparts. Currently, only about 12% of companies in the Tokyo Stock Price Index (TOPIX) have reported their quarterly results. It is too early to draw any final conclusions, but only about 40% of companies have beat their EPS estimates and in aggregate are running at a 5% year-over-year growth rate.
- Early in the month the United States, Canada, and Mexico agreed to a trilateral trade deal, replacing the 24-year-old North American Free Trade Agreement (NAFTA) with the U.S.-Mexico-Canada Agreement (USMCA). The three countries are expected to sign the pact in November. However, U.S. lawmakers will still need to approve the deal, which may not take place until after midterm elections. Canada and Mexico make up a combined 34% of U.S. exports, with each accounting for 15% of overall trade, according to U.S. Census Bureau data.
- In addition to the deal's stipulations, a calming of trade tensions between the United States and two of its traditional allies should come as a relief to investors and a variety of industries that depend on free trade. Furthermore, the trade agreement should provide the needed certainty for companies with cross-border supply chains to pick up the capital spending which was likely delayed in anticipation of a trade deal.
- Despite the recent sell-off, the U.S. economy continues to show strong momentum. The same cannot be said for the rest of the global economy. A variety of items have begun to weigh on chief executive officer (CEO) confidence outside the United States, including trade wars, a strong dollar, rising oil prices, emerging market turbulence, the return of Italian debt woes, and the continuing slowdown in the Chinese economy. Historically, a reliable leading indicator of future business spending and growth, global CEO confidence is an area we will continue to monitor.
- Machinations between Italy and the EU over the country's budget proposal remain fluid. The EU's rejection of the Italian budget proposal was the first time in EU history the governing body rebuffed a member country's budget proposal. The most recent budget tensions have pushed Italian bond spreads versus 10-year German bunds to their highest level in five years. While Italy makes up only 3.5% of the MSCI Europe Index, fears of contagion have developed. At the moment the damage seems isolated, with both Moody's Investors Service and Standard & Poor's reaffirming the country's sovereign rating as stable.
- As expected, the European Central Bank (ECB) left its key policy settings on hold in October. However, the central bank did mention risks to its economic outlook amid weakening forward-looking data, an increase in market volatility, and political uncertainty. ECB President Mario Draghi acknowledged weaker incoming data, but remained confident in meeting the central bank's inflation objective.

Emerging Markets

As Emerging Market Prices Move Lower, So Do Valuations

- Chinese equities continued to drive emerging market (EM) stocks lower in October. Chinese tech giant Tencent Holdings Ltd, the largest name in the EM index, declined a record 11 consecutive days during the month. As a result of the drop in stock prices, the MSCI EM Index forward earnings multiple is at 11x. That is the lowest valuation level for EM equities in over four years. While our long-term view on EMs remains positive, we believe near-term sentiment continues to weigh on stock prices.
- October was a busy month for Chinese economic data, with most reports suggesting tariffs are already affecting business activity. Third-quarter GDP missed the 6.6% growth estimate, coming in at 6.5%. Strong consumer growth was more than offset by weaker-than-expected manufacturing activity.
- Further pointing to the negative impact from tariffs was the Chinese Consumer Price Index (CPI) report for September. Inflation growth was in line with expectations at 2.5% on a

year-over-year basis; however, it marked the fourth consecutive month of accelerating CPI, fueled by rising food prices.

- There is an active debate among investors as to whether recently enacted stimulus measures will be enough to reaccelerate Chinese growth. At the margin we believe they will help, but it is unclear if the result will be growth stabilization or acceleration. We believe there is reason to be skeptical that stimulus efforts will be enough to increase growth significantly. Now that President Xi Jinping is "president for life," he may have more latitude to tackle some of China's debt and economic overcapacity issues. A policy effort similar to that seen in 2015, when China's reacceleration was a major boon to global growth, may not be in the cards.
- One of the few countries with positive performance in October was Brazil, up more than 16% heading into the last week of the month. As the turmoil throughout the presidential election draws to a close, President-elect Jair Bolsonaro may provide needed political certainty for Brazilian markets despite his far-right campaign rhetoric. In addition to an improving political climate, agriculture in Brazil stands to benefit from tariffs the Chinese have placed on U.S. soybeans. While the United States is by far the world's largest soybean producer, Brazil is the second largest.

Commodities

Surface Calm Masks Underlying Volatility

- The Bloomberg Commodity Index was little changed in October, falling 0.5%, bringing year-to-date returns to -2.5%. The surface-level calm, however, masked significant shifts in the underlying subindexes.
- Crude oil, the index's largest individual component, fell almost 8% in October as concerns over international demand and trade tensions outweighed supply concerns related to Iranian sanctions. Stronger-than-anticipated inventory builds in the United States also held down prices. Less momentum in crude oil prices can be viewed as a positive for the consumer since spending on gasoline has historically accounted for 2-5% of pretax household income, or between $1,500 and $3,000, according to U.S. Energy Information Administration data.
- In sympathy with increased concerns over future international demand and the impact of tariffs, industrial metals declined 2% despite seasonally low inventories in key metals. While demand for metals has remained strong thus far, a portion of demand was likely pulled forward in anticipation of tariffs, supported by the increased U.S. trade deficit and inventory builds in the third-quarter GDP report.
- Agricultural commodities were an outlier this month, with sugar prices rising more than 21% and coffee rising 16%. The surge is a result of a strengthened Brazilian real in anticipation of Mr. Bolsonaro's election, boosting the price of the commodity in dollars. The country accounts for 35% of the world's sugar production and 18% of green coffee production.
- As commodity prices have languished over the past six months alongside a stronger dollar, inflation expectations have moderated accordingly, now near 2%. A strong labor market, high savings as a percentage of disposable income, and fiscal stimulus in the form of tax cuts continue to support domestic consumption, which accounts for 70% of GDP.

Strategy Views

A Commentary on Long-Term U.S. Stock Return Expectations: Supply and Demand as a Predictor of Forward Returns

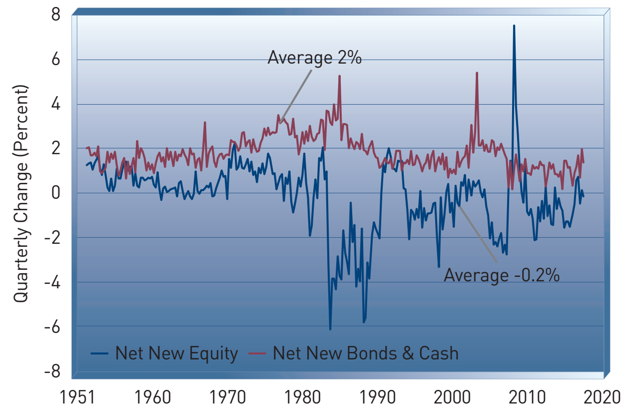
Although our outlook is for a continuation of the U.S. economic cycle and bull market, it is sensible to take stock of our long-term equity return expectations. In short, we believe equity market returns over the next 10 years will be meaningfully below average as valuations revert to longer-term averages. In the pages that follow, we highlight another, somewhat unusual metric which would support that thesis.

As first conceptualized by Adam Smith in his book, *The Wealth of Nations*, the invisible hand is the underlying force driving supply and demand toward equilibrium, with price as the ultimate arbiter. For example, understanding the forces of supply and demand helps to explain the relationship between housing supply and rental rates in a major city or how a tightening labor market affects wage growth within an economy. Simply, the law of supply and demand explains the interaction between the amount of a resource the market can offer and the quantity desired of that resource as determined by price. But what happens if we apply this fundamental economic theory to financial markets? More specifically, can the supply of an investable asset, in this case equities, tell us anything about long-term forward return expectations? In this analysis we explore this concept and uncover some surprising results. Ultimately, we find the supply of equity relative to bonds and cash, which is the equivalent of the average investor allocation to equity, does a better job at forecasting 10-year forward returns than many of the most commonly cited valuation metrics.[5] Today, like many of its long-term valuation metric counterparts, the average investor allocation to equity is pointing to muted future U.S. equity performance.

Supply of Equity and Average Investor Equity Allocations

Our analysis categorizes the total U.S. investable universe into three asset classes: equity; bonds; and cash held by households, corporations, and federal, state, and local governments. By identifying the total market value of each, we can calculate total equity holdings as a percentage of total assets, which mathematically represents the average U.S. investor allocation to equities. Equity prices must fluctuate to allow for supply to always equal demand, as all investable assets must be held by some investor at all times. Supply of an asset, for the purposes of our analysis, is equal to its total market value. That is, supply is determined by the total shares/units available multiplied by the price per share/unit. Therefore, if investors are demanding less equity, the market price will fall, therefore decreasing total supply and the average investor allocation to equities. In theory, another way the supply of equity can change is via new issuances (more supply) and buybacks (less supply). Historically, however, the corporate sector has done little to increase equity share counts, with the quarterly net-new issuance of equities averaging -0.2% since 1951 (Chart 1). Conversely, the supply of bonds and cash has steadily increased at a rate of 2% per quarter over the same time period. Therefore, for the average portfolio to maintain a constant percentage holding to equities, stock prices must rise to maintain the supply of equity, all else equal. Naturally, there will be periods when the average investor portfolio will prefer to hold less equity and this relationship works in reverse. However, for long-term equity investors the historically stable relationship of the growth in supply of bonds and cash outpacing new equity is important. If patient, this provides positive compounding effects for equity investors as the price of stocks must rise to keep relative supply steady over the long run in relation to the other asset classes.

Chart 1
Quarterly Supply Growth
(1951-2018)



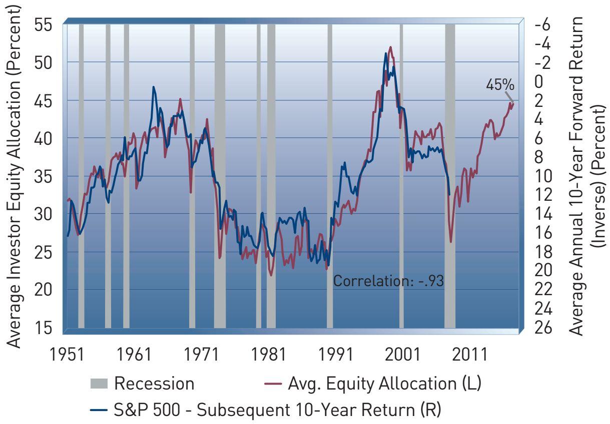
Source: Federal Reserve, PNC

Average Investor Allocation to Equity and Forward Returns

Since 1951, the level of equity supply, and therefore the average investor allocation to equities, has served as a useful indicator in forecasting forward long-

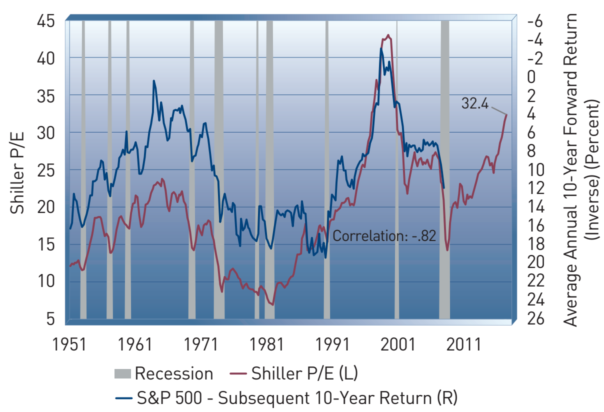
[5] The concept of using the supply of equity to forecast forward equity returns was first introduced in the Philosophical Economics paper titled "The Single Greatest Predictor of Future Stock Market Returns" published December 20, 2013. For more information on the supply of equity calculation and underlying data please follow this link: https://fred.stlouisfed.org/graph/?g=qis to the Federal Reserve Bank of St. Louis Economic Research website.

Chart 2
Average Equity Allocation and Forward Returns
(1951-2018)



Source: FactSet Research Systems Inc., Federal Reserve, PNC

Chart 3
Shiller P/E and Forward Equity Returns
(1951-2018)



Source: FactSet Research Systems Inc., Federal Reserve, PNC

term (10-year) returns (Chart 2). In fact, the metric has outperformed many of the more commonly used valuation measures, including the Shiller P/E Ratio (Chart 3). One potential, actually quite simple, explanation for this outcome may be that valuation is a byproduct of the true driver of equity prices. Stock prices don't change because investors decide to assign stocks a different multiple. A different multiple is the result of the eagerness (or lack thereof) within the investment community to allocate to stocks. In this scenario, the price must change so that the finite supply of available equity equals the shifting demand. To illustrate, think about asset allocation from a total market perspective. In a bull market, like we have been in for the past nine years, investors will often choose to have a higher allocation to equities – in a sense creating a feedback loop. As investors begin to prefer larger allocations to equities after a bear market, prices rise, which cause investors to want to allocate even more to equities. Given we are all just trading a limited supply of shares between one another, prices must shift in order for each investor to meet their allocation preferences. Therefore, remembering the fact that share count largely remains unchanged over time, the only way the "average investor allocation" to stocks can change is via movement in price. When prices are high and investors eventually choose to pare back exposure, the only way to adjust the average investor exposure to stocks is by an adjustment lower in price. Carrying this notion forward, it seems logical that the average investor allocation to equity has provided a more efficient indicator of forward returns.

Ultimately, the metric offers an illustration of market psychology and behavior in that it pays to be fearful when others are greedy, and greedy when others are fearful. When the average investor allocation to equities is low, the forward 10-year return tends to be high. Conversely, when allocations to equity are high, forward returns tend to be low. We believe understanding the average investor allocation to equities offers a useful alternative data point in framing our forward return expectations. Today, the average allocation to equities is 45%, above the 2007 high, but still below the all-time high set in the euphoric period of 1999-2000. While we do not believe we are facing another sell-off akin to the DotCom bubble, we do believe forward return expectations for equities should be tempered. As such, we think it is an opportune time to revisit long-term strategic allocations and rebalance portfolios according to your individual goals-based plan. Rebalancing, particularly after several years of strong equity markets, can help avoid overexposure at market extremes and reduce overall portfolio risk over time.

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Hawthorn Asset Allocation Playbook

As of 10/31/2018

Asset Class	Sub Asset Class	Favorability							Points of View
		-			Neutral			+	
Equities									
U.S.	Large Cap					●			We continue to favor large over small. Small caps have underperformed year to date, as tailwinds from tax cuts and shelter from global growth and trade concerns have been outweighed by less attractive fundamentals. Large caps also tend to outperform small caps in this phase of the business cycle. We believe the economy will continue to grow but at a potentially slowing pace as we move into 2019.
	Mid Cap					●			
	Small Cap				●				
Non-U.S.	Intl. Large/Mid Cap				●				Valuations appear relatively more attractive versus domestic equities, potentially creating attractive long-term opportunities in many international markets. Global central bank monetary policy remains accommodative; however, signs of slowing earnings growth could derail any near-term recovery. Political risk is again elevated and economic momentum has weakened versus what we are seeing in the United States. Our relative preference for these markets would be greater if it were not for some of the persistent fundamental divergences we continue to observe relative to the United States.
	Intl. Small Cap				●				
	Emerging Markets (EMs)		●						Although, we believe recent weakness could persist, the recent sell off does create opportunity for patient investors. The shorter-term bear case for EM equities rests mainly on tightening liquidity in China and strength in the dollar. Year to date, EMs have significantly underperformed both developed international and U.S. markets.
Fixed Income									
U.S.	Short Muni Fixed Income			●					Although interest rates may drift higher given solid economic momentum, we believe we may have already seen the bulk of the move higher in rates for this business cycle given the fact that the projected peak federal funds rate of 3.4% will serve as a weight to longer rates. Therefore, we favor positioning fixed income portfolios in the intermediate part of the curve.
	Core Muni Fixed Income					●			
	U.S. High Yield			●					The credit cycle is aging, and valuations should become an increasing headwind for below-investment-grade bonds. Leveraged loans, although more senior in the capital structure, have seen issuance balloon in recent years while covenants have weakened. Given our view on interest rates, credit risk may be starting to outweigh the protection from higher rates.
	U.S. Leveraged Loans			●					
	U.S. TIPS			●					There is less value in Treasury Inflation-Protected Securities (TIPS), with breakeven inflation rates now around 2.05%. We prefer to hedge inflation over the long term via our equity exposure.
Non-U.S.	Global Bond			●					Although we are not overly negative on credit given the strength of the economy, we do believe slowly shifting to higher quality areas of fixed income is sensible given the level of spreads. Unconstrained funds have reached for yield in lower-rated credits.
	Unconstrained Bond				●				
	Emerging Market Bond			●					
Alternatives									
Private	Private Real Estate				●				Key drivers include a still relatively constrained supply backdrop, modest leverage levels, and the fact that capital flows into the asset class are becoming increasingly global (that is, investor demand is quite robust).
	Private Debt				●				Middle market lending in the corporate sector is still quite constrained, continuing to create opportunities for private debt investors. Some banking deregulation may open this space up to more traditional bank lending, however.
	Private Equity				●				There may be opportunity in new/less efficient markets, and a more diverse investable opportunity set, for example, via secondaries and "co-investment" options. That said, as with public markets, valuations are extended.
Hedge Funds	Equity Long/Short					●			A transition from a primarily macro-driven market environment to a more fundamentally driven one will be positive for these alpha-generating strategies. Central banks now appear more committed to a steady normalization of interest rates than they have been in the past. We believe differentiated return streams can add value in today's market versus a traditional equity/bond portfolio.
	Event Driven					●			
	Relative Value					●			
	Directional					●			
Cash					●				

Tactical Allocations									
Tactical	**Master Limited Partnerships**					●			Performance has rebounded after a choppy start to the year. Markets penalized the sector after a potentially unfavorable tax ruling; however, the ultimate outcome was far less severe than many investors feared. Stronger fundamentals and rising energy prices could spur investor interest given currently depressed valuations and underweight energy positioning among equity portfolio managers.
	Infrastructure					●			Defensive qualities and income potential that we like in the potentially more volatile later stages of the business cycle.
	Currency Hedged Japan					●			Valuations remain attractive and consumer confidence is high; however, we continue to monitor recent earnings results, which have been soft. We still like the currency hedge since the Bank of Japan remains easy relative to the Federal Reserve, however yen positioning has flipped to net short, thus is no longer a headwind for the currency.
	Energy						●		With higher and more stable oil prices, better capital discipline, and attractive relative valuations, we believe Energy sector equities can outperform the broad market on a tactical basis despite recent weakness.
	U.S. Banks				○		●		We think valuations, the regulatory backdrop, and the continuation of this business cycle are compelling reasons to tilt toward U.S. banks within value allocations. Banks are historically correlated with increases in capital expenditures; however, companies have been more likely to fund investments with cash given lower tax rates and overseas repatriations.
	Structured Note (Drawdown)				○				Ability to earn a coupon while waiting for a better entry point into equities can be an attractive strategy. However, cash has become more palatable given the rise in short-term interest rates.

For definitions of indexes used in this publication, please refer to pnc.com/indexdefinitions.