WILMINGTON TRUST

April | 2019

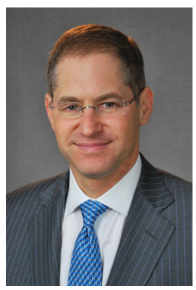
Capital Perspectives

Monthly investment analysis and insights from Wilmington Trust Investment Advisors

ON THE RECORD

Clarity Amid Confusion

In this issue:



Tony Roth
Chief Investment Officer

Ten years after the trough of the S&P 500 and we are clearly deep into the economic cycle. Consequently, at each softening of the economic data, it is tempting to call the turning point in the direction of growth. Many market participants are reacting to recent developments in just this way, and recession-related anxiety is running high. By contrast, our reaction to that same information is, "Not so fast."

Consider the following sequence of recent events:

On March 20, the Federal Reserve announced no change to its policy rate, but the FOMC—the committee that sets the direction of monetary policy—lowered its expectations for further policy tightening, signaling no further rate increases in 2019. It made only minor reductions to future growth and inflation projections and also announced an early end to its "quantitative tightening" policy of shrinking its balance sheet. This was an unequivocally "dovish" Fed meeting that would have normally been met with enthusiasm from equity investors and a steepening of the yield curve (i.e., bonds selling off).

The next day, business activity surveys in Europe massively disappointed, with indicators of the manufacturing sector falling deeply into contractionary territory (Figure 1). International bond yields fell, with the yield on the 10-year German bund moving back into negative territory for the first time since October 2016. (As a reminder, a negative-yielding government bond means an investor pays for the right to lend money to the government.) Concerns about spillover risk coupled with a hunt for yield brought the 10-year U.S. Treasury yield to below 2.4% from 3.2% just five months earlier.

Continued

Figure 1

European manufacturing PMIs continue to deteriorate

Data as of March 26, 2019.

Source Macrobond.

While we are grappling with a slowing global economy, the majority of other market-based and economic data points that we follow, such as unemployment claims and credit spreads, are suggesting a recession is not on the 12-month horizon.

Two days after the Fed meeting, the slope of the Treasury yield curve inverted between the 10-year and 3-month tenors (meaning the 3-month Treasury was yielding more than the 10-year, an indicator of slowing future growth that has preceded every recession in the last 60 years). Meanwhile, the sibling of the 10-year/3-month curve—the difference between the 10-year and 2-year yields, which has historically moved with the 10-year/3-month slope and also preceded prior recessions—has actually steepened, as the market has now priced in two rate cuts by the Fed beginning as early as September 2019. In other words, one recessionary signal is flashing red, yet another very similar one is yellow moving closer to green.[1]

Through all of this, equity volatility and credit spreads have continued to come down from December's elevated levels (Figure 2).

How does one go about positioning portfolios in an environment characterized by such myriad conflicting data points?

First, we think it is critical to not be overly reliant on just one indicator. In this case, it means recognizing that the yield curve is one of the clearest and most indicative signs we have that the U.S. economy is late cycle, but it does not tell us how long this stage will last (*Yield Curve Flashing Red, but Don't Hit the Panic Button* and *Capital Perspectives: Canaries in the Economic Coal Mine?*). While we are grappling with a slowing global economy, the majority of other market-based and economic data points that we follow, such as unemployment claims and credit spreads, are suggesting a recession is not on the 12-month horizon.

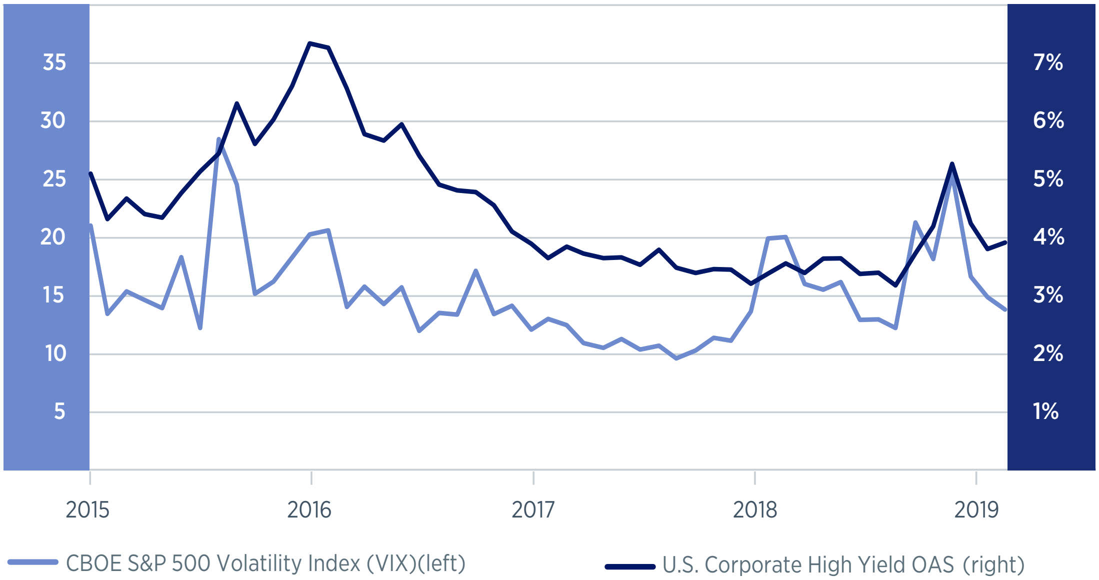
Second, we do not want to be dismissive of data, but we work to *understand the context* around each data point. For example, December retail sales and February job growth were very disappointing. If all else were equal, these would be red flags,

[1] As of April 1, 2019, the slope of the 10-year minus 3-month yield curve had re-steepened back into upward-sloping territory.

Continued

Figure 2

Volatility, high-yield spreads slightly elevated but not alarming



OAS is the option-adjusted spread on the U.S. Corporate High Yield Index and represents the extra yield over the risk-free rate as measured by the options market.

Data as of March 29, 2019.

Sources: Macrobond and Bloomberg.

We frequently perform "risk x-rays" for clients to target the right amount of risk, and the best way to understand that risk, for customized situations.

but all isn't equal. The government was collecting data for these releases around the same time as the worst equity market selloff we have experienced since 2011, a U.S. government shutdown, and winter storms, further exacerbating already-challenging seasonality issues. And we believe the inversion of the yield curve discussed earlier is being impacted by lower interest rates overseas, thereby distorting its signal of the U.S. economy. All of these factors elevate the importance of the next few months of data.

Most importantly, we work with our clients to be *proactive, not reactive.* This means working with clients on an individual basis to determine their risk tolerance before a significant drawdown event. The fourth quarter was a not-so-friendly reminder that equity market losses can come swiftly and without warning. As we expected, the S&P 500 has rebounded nicely (recouping almost all of its loss over that period), but not all drawdowns will be recovered as quickly. We frequently perform "risk x-rays" for clients to help target the right amount of risk, and the best way to understand that risk, for customized situations. The more mentally prepared investors are for the inevitable, and the better equipped their portfolios are to withstand a drawdown in equity markets, the more likely they are to stick with their long-term investment plans.

Positioning for the future

At this time, we are staying the course within portfolios, maintaining a slight overweight to equities versus our strategic benchmark. In our assessment, there is a significant amount of pessimism in the markets around the global growth backdrop, both in the U.S. and internationally. However, we expect economic growth to stabilize and reaccelerate as we look further out into the year. If we are right, then U.S. GDP growth should come in right around 2% in 2019, and corporate profits

Continued

With the Fed now taking a more cautious approach to further rate hikes, we think the U.S. economic cycle still has legs.

should grow in the mid-single digits this year versus last year. This would represent a decline in the rate of growth, but growth nonetheless. With the Fed now taking a more cautious approach to further rate hikes, we think the U.S. economic cycle still has legs.

While we expect global equities to have a good year, we see the balance of risks as skewed to the downside in regions like Europe and Japan. Economic data in these economies have steadily deteriorated over the last year, and continue on a downward trajectory. Despite attractive valuations, we fear these areas could be "cheap for a reason," at least until the veil of uncertainty around Brexit and trade is lifted and economic data start to show evidence of a trough. We remain underweight international developed equities, choosing instead to hold more U.S. large cap than our benchmark, such that our overall developed market equity exposure is neutral.

China has been at the epicenter of the global slowdown, and emerging markets equities had a very difficult year in 2018. Chinese policymakers have implemented several measures over the past 12 months to ease monetary and fiscal conditions. This round of stimulus is much more targeted than the flood of credit that was added to the economy in 2016, so investors should expect the economy to react differently than it did in 2017. We anticipate that this stimulus will gain traction in the Chinese economy, which would help China and its trading partners, and we continue to hold a modest overweight to emerging markets equities.

The recent fall in interest rates makes fixed income, which was already an expensive asset class, even more expensive. If economic growth picks up as we expect, interest rates would likely head higher, eating into the total return on bonds. We remain underweight fixed income versus our benchmark. To balance the risk in portfolios, we are holding a slightly elevated level of cash, which is offering an attractive yield with very little risk and provides a great deal of flexibility to adjust to market conditions. With global events, economic data, and market conditions evolving so rapidly, we will continue to keep you informed if and when our view of the world changes.

In closing, if you've ever wondered about the method to the Fed's monetary policy "madness," I encourage you to keep reading, as Chief Economist Luke Tilley takes a masterful turn at explaining it all in this issue's "In Focus."

Until next month,

Tony

Tony

IN FOCUS

A Brave New (Fed) World

Luke Tilley
Chief Economist

At a glance:

- **In 2019, the Fed is finalizing the biggest changes in its operations since the Volcker era of the early 1980s; going forward, it will permanently operate with a much larger balance sheet**
- **The overhaul is necessary because the financial system has changed significantly, causing banks to want to have more reserves on hand at the Fed than ever before**
- **The implication for financial markets is the Fed will hold significantly more Treasuries than it ever had in the past**

The Federal Reserve has long been one of the most important influences on financial markets and has only taken on more importance in the past decade. From engaging in zero-interest-rate policy to pumping the banking system with trillions of dollars, the Fed's actions have been at the center of economic and financial market developments. In addition to the ongoing ebb and flow of adjusting interest rates through the economic cycle, the Fed is at all times going through longer-term, structural changes in the way that it operates. Since December 2015, when the Fed first hiked rates in this cycle, it has been operating using very different methods to control short-term interest rates. Now, over the course of 2019, the Fed is expected to formalize and complete the biggest changes in its operations since the Volcker era of the early 1980s, and is considering more possible changes going forward. All of this will impact financial markets, as the Fed will have a much larger balance sheet than in the past.

Before the crisis

To understand just how stunningly different the Fed's current operating model is now relative to before the financial crisis, it's instructive to look at how things were done previously. This may seem at first like an irrelevant history lesson, but it bears significantly on what the Fed is doing now. Figure 1 is a stylized depiction of how the Fed controlled short-term interest rates for decades, right up until the crisis. It shows the market for "excess reserves" in the banking system. What are excess reserves? Essentially, banks need to have a certain amount of reserves on hand at the end of each day to meet regulatory requirements. If one bank (Bank A) comes up short, then it looks to other banks for an overnight loan to cover the shortage and avoid getting into hot water with regulators. When another bank (Bank B) makes the overnight loan to Bank A, it charges an interest rate of its choosing, called the federal funds rate. This is admittedly an incredibly poor name, as it sounds like a rate that would be set and administered by the Fed, but it's not; it's the rate that banks charge one another.[1]

The Fed previously influenced short-term interest rates by manipulating the market for excess reserves in an effort to get Bank B to charge Bank A whatever rate the Fed decides is best. Figure 1 shows the banks' demand for excess reserves as the downward sloping curve, as in any demand curve from Econ 101. The supply of excess reserves is shown as vertical lines because the Fed has complete control over the supply. A big part of the Fed's job to execute monetary policy involves trying to figure out where the demand curve for reserves is (much more on this later). In Figure 1, if the Fed thinks the rate should be 1%, then it sets the amount of reserves[2] in the system to $12 billion, where it was in early 2004. The figure shows how, in 2004 to 2006, when the Fed raised its target for the rate from 1% to 5¼%, it did so by

[1] If Bank A searches around and cannot find another bank to borrow from, it ultimately will borrow directly from the Fed, and be charged the *primary credit rate,* also known as the *discount rate.* Banks avoid borrowing from the Fed because doing so on a regular basis brings regulatory scrutiny.

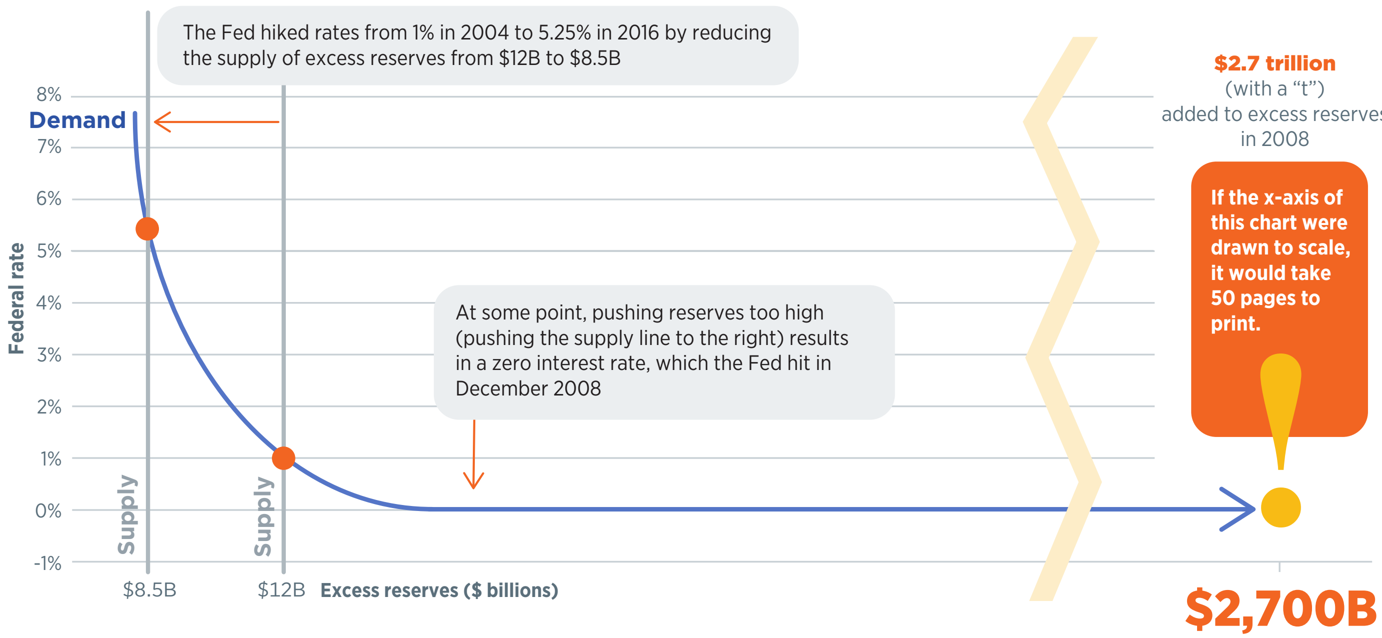
[2] The Fed can inject or remove reserves from the system by buying and selling Treasury securities to banks, called "Open Market Operations."

Continued

Figure 1

The market for excess reserves

The Fed formerly targeted interest rates by estimating banks' demand for excess reserves and then manipulating the supply. After the crisis and multiple rounds of quantitative easing, the market is flooded with reserves, necessitating a new method.



Source: Wilmington Trust Investment Advisors, Inc. (WTIA).

removing nearly $4 billion of excess reserves from the system. It is important to understand the scale of those figures. For decades, excess reserves were entirely unwanted by the banks. They did not earn much return for shareholders, and were an undesirable byproduct of having too much money on hand at the end of a business day. The total amount of excess reserves in the system was incredibly small relative to bank balance sheets, and made up roughly 1%–2% of the Fed's liabilities.

Get out the hoses

During and after the financial crisis, the Fed pulled out the proverbial firehoses and did whatever was necessary to douse the flames. During the crisis, this was manifested by an alphabet soup of emergency lending programs, and afterward by quantitative easing (QE), when the Fed purchased trillions of dollars' worth of Treasuries and mortgage-backed securities to keep interest rates low. The impact on excess reserves in the system was no less than a seismic event, putting $2.7 trillion more into the system. To put that into perspective, if we wanted to show it on Figure 1, we would need to expand the x axis (horizontal line) by adding about 50 sheets of paper laid end to end to draw it on the same scale.

The firehoses did their job in putting out the fires, but they also created a problem of soaking the house. When it came time to raise interest rates, first in December 2015, and now eight more times since then, the supply of excess reserves was so astronomically far away from the demand for reserves that another method was needed, as it would be impossible to use the approach shown in Figure 1. The Fed

Continued

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It's a $3 trillion thing,

and it should drive serious questions about why the Fed would want to operate with a balance sheet four times larger than it did before the crisis, especially when many economists in the past would have predicted that such a bloated balance sheet would generate rampant inflation.

decided to offer higher returns on deposits held at the Fed, called interest on excess reserves (IOER), in order to push up the federal funds rate. In layman's terms, Bank B would never lend to Bank A at a rate of 0.25% if it could simply collect a higher rate, say 0.5%, by just leaving it in an account with the Fed.[3] The new method has worked remarkably well, successfully goading banks to charge each other exactly what the Fed desired as it has hiked its target.

Normalization, but to a new normal

In October 2017, the Fed started to clean up the mess created by the firehoses, represented by a balance sheet of $4.5 trillion, which was about five times higher than it had been just before the crisis. The central bank started letting the balance sheet drift downward by not reinvesting the proceeds of Treasuries and mortgage-backed securities (MBS) that matured. The process worked smoothly and drew little attention for a full year until financial market volatility in 4Q 2018 led some investors to conclude that the Fed's actions must be playing a part in the swoon. This essentially forced the Fed to admit something that had been true all along, that it would be willing to halt the normalization process if the process was harming the U.S. outlook or financial markets. When Chairman Powell showed this flexibility, it was one of the supports that ended the turbulence in markets.

That hand-wringing over "will they or won't they" was soon rendered moot, with the Fed's announcement on March 20, 2019, that it will be ending the normalization process over the course of the year. In May, it plans to slow the runoff of Treasuries but continue the runoff of mortgages—and in September it plans to purchase Treasuries on an ongoing basis to replace mortgages that get paid off. We estimate this will keep the balance sheet level at roughly $3.7 trillion, still dramatically higher than the pre-crisis starting point of $900 billion.

This is no small thing. It's a $3 trillion thing, and it should drive serious questions about why the Fed would want to operate with a balance sheet four times larger than it did before the crisis, especially when many economists in the past would have predicted that such a bloated balance sheet would generate rampant inflation. The Fed's answer in two parts: 1) the financial markets have changed; and 2) it's not even up to the central bank as to how large the balance sheet should be. That second point is the key. When the Fed was ramping up its balance sheet with the firehose, it had an intense focus on the asset side of the balance sheet, with numeric targets of Treasury and MBS purchases in order to support the market. Balance sheets, by definition, must balance, and those extra assets were balanced by excess reserves, among other things, on the liabilities side. Now, the Fed has flipped the discussion around, and is saying that the *demand for liabilities* on its balance sheet will determine the ultimate level.

[3] For various reasons to be explained in a thought leadership paper later this year, the Fed also created another tool to push up rates, which works in the same manner as the IOER method described above.

Continued

Figure 2

Federal Reserve liabilities—then and now

($ billions)

Year	2008	2019
Currency in circulation	825	1,721
Treasury general account	5	350
Foreign reverse repurchase agreements	30	250
Excess reserves	8	1,520
Total	**868**	**3,841**

Source: Federal Reserve Board.

This new, higher demand for excess reserves is the final reason for the Fed needing to maintain such a large balance sheet post crisis, and its announcement in March that it will be ceasing the balance sheet normalization process later in 2019.

So many liabilities

A quick examination of the Fed's current liabilities reveals that it is impossible for it to ever return to the $900 billion as was the case before the crisis. The first reason is currency in circulation, which the Fed manages and is one of its liabilities. Demand for currency has grown throughout history at roughly 6% a year, which has continued in recent years despite the increasing prevalence of electronic and card payments. As of March 2019, there was $1.7 trillion in circulation, more than double the pre-crisis amount, and this places a floor on how low the balance sheet could ever go.

In addition, the U.S. Treasury, which uses the Fed as its bank, previously did not keep a very high balance in its account, roughly $5 billion before the crisis. The Treasury has since changed its operations and, in 2015, set an official policy of maintaining one-week's worth of outflows at all times, and a minimum balance of $150 billion. In practice, for the past three years, the Treasury has maintained a balance of $200–$350 billion. Additionally, the Fed carries out a set of financial operations with foreign central banks for dollar liquidity reasons, known as foreign reverse repurchase agreements. Those have grown significantly since the crisis, from roughly $30 on average to $250 billion now. Taken together, these three liabilities (that have nothing to do with monetary policy) compel the Fed to maintain a balance sheet of *at least* $2.3 trillion.

That brings us back to excess reserves, the liability that has everything to do with monetary policy. Recall from Figure 1 that excess reserves before the financial crisis were highly undesirable to banks, and were held in very small amounts. That has changed significantly, with the largest driver being new regulation—especially the advent in 2015 of complying with a minimum liquidity coverage ratio (LCR), forcing banks to hold a certain amount of high-quality liquid assets (HQLA) that can be resorted to easily in a time of stress. It just so happens that excess reserves (along with Treasuries and certain kinds of MBS) are one way to satisfy the requirement. As a result, the demand for excess reserves has increased dramatically, or in the context of Figure 1, the demand curve has shifted very far to the right, well off the page.

Continued

Before the crisis, the Fed maintained a balance sheet that was roughly 6%–8% of nominal GDP.

At its peak, the balance sheet reached 25% of GDP, a massive change.

This new, higher demand for excess reserves is the final reason for the Fed needing to maintain such a large balance sheet post crisis, and its announcement in March that it will be ceasing the balance sheet normalization process later in 2019. Thinking back to the way the Fed previously managed short-term interest rates: It previously used the intersection of supply and demand, as in Figure 1. Now both the supply and the demand for excess reserves have skyrocketed. And as the Fed communicated in multiple instances leading up to the March 20 announcement, it has officially decided to keep the new method of managing short-term interest rates, using IOER and other tools described above. The implication for the balance sheet is it now needs to keep the balance sheet higher than ever before, and high enough to avoid the intersection of the supply and demand of reserves. If they were allowed to intersect, the Fed may lose control of managing the short-term rate under its new methods.

The implications

The Fed's new approach to its balance sheet and more generally to the operation of monetary policy is the most significant shift since the Volcker era. The new method of managing short-term interest rates using IOER and other tools is now made permanent, though that is simply mechanical and of only minor significance for markets. The new, permanently higher Fed balance sheet is more significant. Before the crisis, the Fed maintained a balance sheet that was roughly 6%–8% of nominal GDP. At its peak, the balance sheet reached 25% of GDP, a massive change. That has now come down to roughly 20%, where we expect it to remain.

The implication for Treasuries is that the Fed will have a larger portfolio than if it had continued to normalize. Within the context of the whole Treasury market, though, the Fed's share is actually comparable to pre-crisis years because the total debt has ballooned along with the Fed's balance sheet. In the years approaching the crisis, the Fed owned roughly 8%–10% of the total outstanding market. That rose to nearly 14% at the peak. The normalization has pulled the Fed back down to roughly 10% of the market again.

All the changes described in this article deal with the mechanics of how the Fed implements monetary policy. This year there may be an even more dramatic change in the way the Fed targets inflation, perhaps moving to a strategy that commits the central bank in a more explicit way to seek higher inflation after periods of missing on the low end, and vice versa. The Fed is examining those possibilities over the course of 2019 and we are watching closely.

Equities

March 2019 review

	AS OF MARCH 29, 2019		
	Month	Year to date	Trailing 12-month return
S&P 500	1.9%	13.7%	9.5%
Russell 2000	–2.1%	14.6%	2.0%
MSCI EAFE	0.6%	10.0%	–3.6%
MSCI Emerging Markets	0.8%	9.9%	–7.3%

Sources: FactSet, Bloomberg. Investing involves risks and you may incur a profit or a loss. Past performance cannot guarantee future results. Indexes are not available for direct investment.

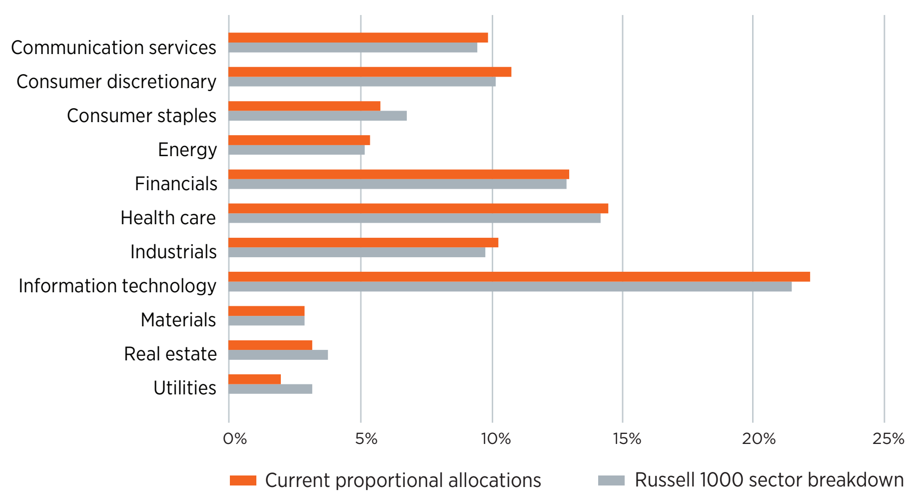
U.S. Equities

- Markets experienced some choppiness with the S&P 500 rising 1.9% with growth outperforming value by 2.2%
- The best performance came from technology, real estate, consumer discretionary, and consumer staples; underperforming sectors were led by financials, industrials, health care, and materials
- Valuation advanced on lower earnings and higher prices with current 2019 and 2020 PE multiples at 17.1x and 15.3x
- A weakening global economic picture, particularly in industrial activity along with a flat yield curve, has raised "end of cycle" concerns; however, when juxtaposed against the abysmal 4Q 2018 equity performance, the market is about flat over this period; any incremental positive, such as a China trade agreement, may allow the market to make additional progress this year

International Equities

- In Asia ex-Japan, the end of Chinese financial deleveraging, a recovery in e-commerce stocks, and the prospect of a fairly comprehensive U.S. trade deal, has boosted investible Chinese share prices
- International PMIs slipped lower, indicating slowing industrial demand weighed on markets around the world
- Within the eurozone, German stocks have been recent laggards, due to temporary headwinds from sluggish manufacturing exports to China and uncertainty regarding U.S. trade policy
- In Europe, we have conviction that, ultimately, the UK will not "crash out" of the EU; the market seems to agree and, while Brexit uncertainty has had some negative impact on pound sterling, UK equities have demonstrated strong performance
- There are no other major scheduled high-magnitude political events that would pose uncertainty in Europe
- As with German stocks, Japanese stocks have registered relatively poor performance in 1Q, but can be expected to turn around in 2Q and 3Q, as Japanese manufacturers respond to a weaker yen and to recovering Chinese economic growth; U.S. trade policy also presents a potential headwind for Japanese exporters

Our sector allocations, as of March 29, 2019



Sources: Bloomberg, WTIA.

ASSET CLASS OVERVIEW

Fixed Income

March 2019 review

	AS OF MARCH 29, 2019		
	Month	Year to date	Trailing 12-month return
Bloomberg-Barclays U.S. Aggregate Bond Index	1.9%	2.9%	4.5%
Bloomberg-Barclays U.S. Investment Grade Credit Index	2.4%	4.9%	4.9%
Bloomberg-Barclays Ba High Yield Index	1.2%	7.2%	6.3%
Bloomberg-Barclays 60% High Yield Total Return/ 40% Municipal Total Return Index	2.2%	3.5%	7.0%
Bloomberg-Barclays U.S. Mortgage Backed Securities Index	1.5%	2.2%	4.4%
S&P Municipal Bond Index	1.5%	2.8%	5.1%
S&P Municipal Bond New York Index	1.5%	2.7%	4.9%
S&P Municipal Bond California Index	1.5%	2.8%	4.9%

Sources: FactSet, Bloomberg. Investing involves risks and you may incur a profit or a loss. Past performance cannot guarantee future results. Indexes are not available for direct investment.

U.S. Treasuries

- Yields continued to fall over the month as the Fed paused on further rate hikes, as well as communicating how and when it will stop shrinking its balance sheet
- The yield curve inverted (3-month bill vs. 10-year note) to –0.05%, raising investors' concerns of recession; the 30-year bond returned 5.60%
- Global interest rates moved more into negative territory (German 10-year bund is yielding –0.05% vs, Japanese 10-year notes at –0.10%), making Treasuries more attractive to foreign investors

Investment-grade (IG) Corporates

- IG credit returns were positive, supported by a more accommodating Fed policy and lower treasury yields
- The OAS of the Bloomberg/Barclays U.S. Credit Index ended March at 113 basis points, or bps (1.13%), 1bp tighter than at the end of February
- IG returns were positive; total return for the Bloomberg Barclays U.S. Credit Index was 2.44% and year to date (YTD) the index has returned 4.87%
- Pace of supply issuance picked up; more M&A activity and lower borrowing costs have given issuers incentive to sell debt
- New issue supply totaled $116.3bn, up 4.4% vs. March of 2018; YTD, supply of $320.4bn is essentially flat vs. $319.8bn in 1Q 2018

High-yield (HY) Corporates

- HY was +0.66% with BB-rated bonds (+0.90%) outperforming both CCC (+0.25%) and B-rated bonds (+0.55%)
- YTD, HY gains are +7.0% with CCC-rated bonds (+6.45%), underperforming B-rated (+7.15) and BB-rated bonds (+7.10%) despite the strong equities rally
- The YTD return is the strongest start to a year on record for the HY asset class, besting 1Q 2003's record-holding +6.3%
- Supply issuance totaled $25.5bn with refinancing activity recovering ($18.4bn) alongside the decline in yields
- YTD, gross and net issuance of $64.3bn and $24.4bn (of refinancing) are down (–10%) and up (+35%) year over year

Municipals

- Yields stayed on trend with a further dip in the S&P Municipal Bond Index yield by 0.198% to 2.353%, supporting YTD returns
- Technicals showed strength when higher-yielding Illinois (Baa3/BBB–/BBB) and Chicago (Ba1/BBB/BBB-) came to market simultaneously late in March; combined $1bn issuance found good acceptance in an underfed market
- Issuance fell 7% to $24.25bn vs. to $26.08bn in March of 2018; sharp pickup in issuance is doubtful with the tax law's elimination of advance refundings
- Strong demand continues to buoy the market, with 12 consecutive weeks, or $22.5bn, of positive funds flow YTD

International

- 10-year eurozone sovereign bond yields declined, becoming negative again; eurozone interest rates declined due to Fed interest rate policy reversal and the ECB's announcement it would provide another round of enhanced liquidity; on balance, markets consider the ECB more accommodative than the Fed
- UK gilt yields have declined but stay positive; also, as with pound sterling, gilt yields may be pricing in a Brexit risk premium; Japanese government bond yields continue to fluctuate around zero
- Emerging markets yield rally (with the reduction of U.S. bond yields) is unlikely to be sustained

Real Assets, Hedge Funds, and Private Markets

March 2019 review

	AS OF MARCH 29, 2019		
	Month	Year to date	Trailing 12-month return
S&P Developed Property	3.6%	14.4%	12.7%
Barclays Inflation	1.9%	3.3%	3.0%
Bloomberg Commodity	–0.2%	6.3%	–4.5%

	AS OF MARCH 29, 2019		
Hedge Fund Research Institute Indexes	Month	Year to date	Trailing 12-month return
Global	–0.2%	2.6%	–3.2%
Equity Hedge	0.8%	6.0%	–4.6%
Event Driven	–1.5%	0.8%	–6.3%
Macro	0.3%	–0.9%	–2.6%
Relative Value	–0.2%	2.6%	0.5%

Sources: FactSet, Bloomberg. Investing involves risks and you may incur a profit or a loss. Past performance cannot guarantee future results. Indexes are not available for direct investment.

Real Assets

- U.S. inflation-linked bonds were up strongly, though slightly under-performed nominal bonds as inflation expectations declined across all maturities
- The rally in real estate equities continued, with gains outpacing broader equity indices as the Fed confirmed its projections matched market expectations of no rate hikes in 2019
- Commodities were roughly flat; energy gained as oil continued to rally after the steep selloff in the latter part of 2018 while precious metals sold off, with declines led by silver and platinum

Hedge Funds

- Hedge funds were roughly flat
- Equity hedge managers were the top performers, and the strategy had its best quarterly results since late 2010
- Macro managers also had a good month as systematic trend followers salvaged what had been a difficult start to the year
- Event-driven managers were down over 1% as distressed and special situations strategies struggled

Private Markets

- The universe of unicorns, or venture-capital-backed private companies with valuations greater than $1bn, has reached its highest level on record, with greater than 300 globally
- While there were a number of unicorn IPOs or acquisitions in 2018, including storage company Dropbox and music streaming firm Spotify, the vast majority of high profile unicorns remained private, but look for this to change in 2019
- Lyft went public on the last day of 1Q, and firms such as Uber, Pinterest, Palintir, and Slack, each with private market valuations greater than $10bn, are also expected to tap public markets

Investment Positioning

Portfolio targets effective April 1, 2019, for high-net-worth clients with Hedge Funds

	Aggressive			Growth & Income			Conservative		
	Strategic Asset Allocation (long term)	Tactical Asset Allocation (short term)	Change this month	Strategic Asset Allocation (long term)	Tactical Asset Allocation (short term)	Change this month	Strategic Asset Allocation (long term)	Tactical Asset Allocation (short term)	Change this month
Equities									
U.S. Large-Cap	46.0%	47.1%	—	32.6%	33.8%	—	15.2%	16.3%	—
U.S. Small-Cap	13.8%	13.8%	—	8.2%	8.2%	—	1.5%	1.5%	—
International Developed	19.5%	18.5%	—	12.7%	11.5%	—	5.0%	4.0%	—
Emerging Markets	9.7%	10.2%	—	3.6%	4.1%	—	1.0%	1.2%	—
Total Equities	**89.0%**	**89.6%**	**0.0%**	**57.0%**	**57.5%**	**0.0%**	**22.7%**	**23.0%**	**0.0%**
Fixed Income									
U.S. Investment Grade–Tax-Exempt	0.0%	0.0%	—	30.0%	26.6%	—	64.3%	60.1%	—
High-Yield–Tax-Exempt	0.0%	0.0%	—	2.0%	2.0%	—	2.0%	2.0%	—
Total Fixed Income	**0.0%**	**0.0%**	**0.0%**	**32.0%**	**28.6%**	**0.0%**	**66.3%**	**62.1%**	**0.0%**
Real Assets									
U.S. Inflation-Linked Bonds	0.8%	0.7%	—	0.8%	1.0%	—	0.8%	1.0%	—
U.S. REITs	0.8%	0.5%	—	0.8%	0.8%	—	0.8%	0.8%	—
International REITs	2.5%	1.7%	—	2.5%	2.5%	—	2.5%	2.5%	—
Total Real Assets	**4.0%**	**2.9%**	**0.0%**	**4.0%**	**4.3%**	**0.0%**	**4.0%**	**4.3%**	**0.0%**
Hedge Funds	**5.0%**	**5.0%**	**0.0%**	**5.0%**	**6.0%**	**0.0%**	**5.0%**	**8.0%**	**0.0%**
Cash & Equivalents	**2.0%**	**2.5%**	**0.0%**	**2.0%**	**3.6%**	**0.0%**	**2.0%**	**2.6%**	**0.0%**
Totals	**100.0%**	**100.0%**		**100.0%**	**100.0%**		**100.0%**	**100.0%**	

Note: Totals may differ slightly from the allocation building blocks due to rounding.

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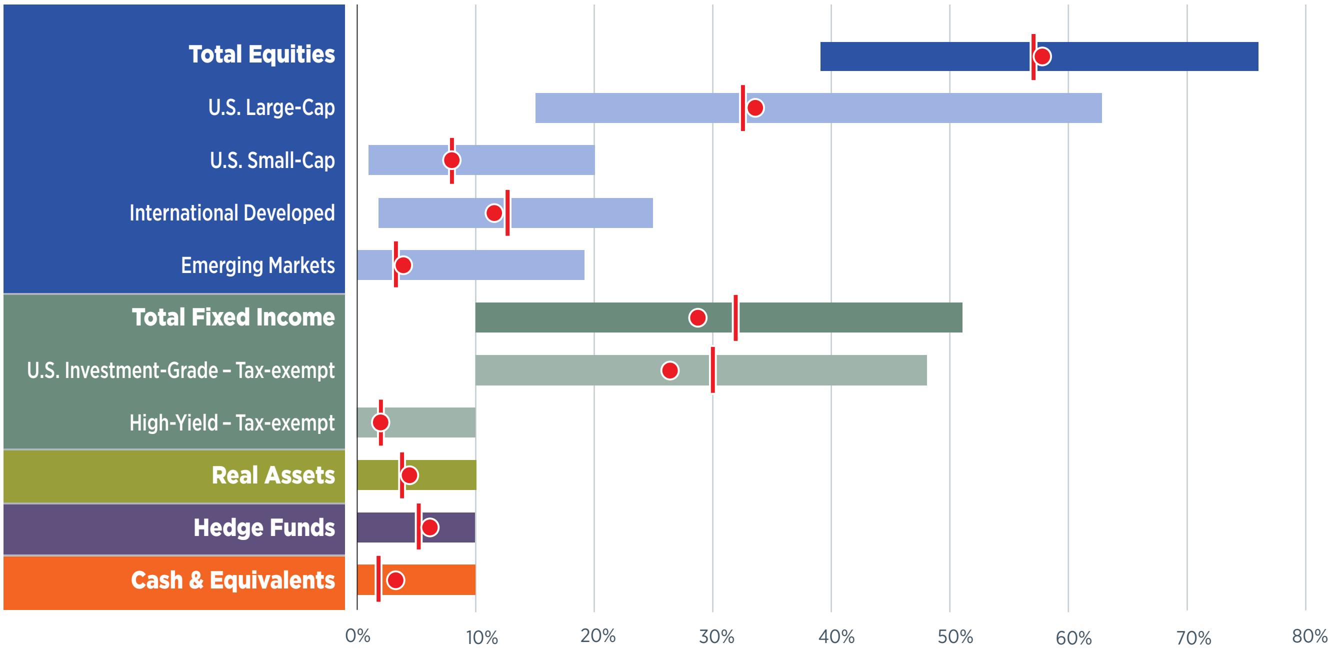
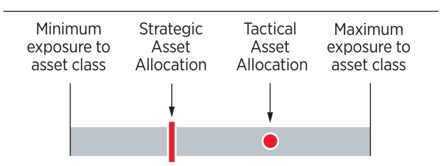
For an overview of our asset allocation strategies, please see the disclosures.

Source: WTIA.

Positioning in Response to Our Outlook

A big-picture glimpse of our overall positions, as of April 1, 2019 (high-net-worth investors)





Based on current Growth & Income Strategy for High-Net-Worth with Hedge Funds, this chart represents current weights relative to our strategic asset allocations with high and low boundaries reflecting maximum and minimum weightings.

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Source: WTIA.

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Continued

Disclosures Continued

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