Published: October 2017

Morgan Stanley
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Fixed Income Management
Quarterly Newsletter

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Economics

The Inflation Dilemma

Despite persistently low inflation that continues to linger below 2%, the Federal Reserve appears prepared to forge ahead with a December rate increase. Even as unemployment declines to historic lows and economic growth presses forward, inflation continues to elude the Fed's target. The prolonged disconnect between labor supply and wage growth has added fuel to the debate over whether tepid inflation is the result of transitory effects or a permanent trend. Further muddying the waters, are the economic effects of Hurricanes Harvey, Irma and Maria. With the data failing to provide clear guidance, the Fed seems prepared to look past inflation uncertainty and push toward normalization even if the risk of reducing economic accommodation too soon looms in the background.

Taxable Credit

Risk up, Vol down

Since the last global selloff back in the first quarter of 2016, risk assets have enjoyed an almost linear appreciation at perplexingly low levels of market volatility. Without question, the most remarkable characteristic of this ongoing rally is the historically low level of volatility in risk assets across the board. Any and all weakness has been quickly reversed by what seems to be an insatiable bid, waiting for dips and grinding markets higher. Consequentially, neither equities nor credit experienced a 2% dip over a trading week in the last year.[1] The last time equities went that long without a 2% dip in a week was a 62 week stretch in 1994-1996.[2]

Municipal

Man vs. Nature

The market's remarkably muted response to the natural disasters that have swept across the Gulf Region, the Caribbean and more recently California, are a testament to the fact that often man can be his own worst enemy. Despite hurricane related damages which are expected to cost hundreds of billions of dollars in recovery expenses, the muni market remained relatively firm. Muni yields inched mildly higher, primarily in response to changes in the Treasury market rather than significant credit concerns in the affected disaster areas. However, where Mother Nature's wrath failed to shake muni credit, state and federal politicians may succeed. Poor financial decision making in states like Connecticut and Pennsylvania have led to credit downgrades and political maneuvering on economic behemoths like healthcare may lead to less stability in the sector. Thus as we head into the fourth quarter our focus remains trained on man-made disasters, not natural ones.

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Economics

The Inflation Dilemma

Despite persistently low inflation that continues to linger below 2%, the Federal Reserve appears prepared to forge ahead with a December rate increase. Even as unemployment declines to historic lows and economic growth presses forward, inflation continues to elude the Fed's target. The prolonged disconnect between labor supply and wage growth has added fuel to the debate over whether tepid inflation is the result of transitory effects or a permanent trend. Further muddying the waters, are the economic effects of Hurricanes Harvey, Irma and Maria. Noisy economic data, distorted by natural disaster preparations as well as recovery spending, will make it difficult to fully discern the extent of inflationary weakness in the near term. With the data failing to provide clear guidance, the Fed seems prepared to look past inflation uncertainty and push toward normalization even if the risk of reducing economic accommodation too soon looms in the background.

Although the majority of FOMC participants remain optimistic that their mid-term inflation expectation is still on pace, the committee has lowered their short term predictions. In the September Summary of Economic Projections the Fed reduced their median 2017 Core PCE projection from 1.7 to 1.5 and their 2018 projection from 2.0 to 1.9 (See Exhibit 1).[1] This comes on the heels of a steady drift downward in Core PCE inflation since January and five straight months of stagnant YoY core CPI inflation (See Exhibit 2). Which begs the question, why isn't the Fed pausing in the face of softer inflationary data?

(1.) Fed Summary of Economic Projections (%)

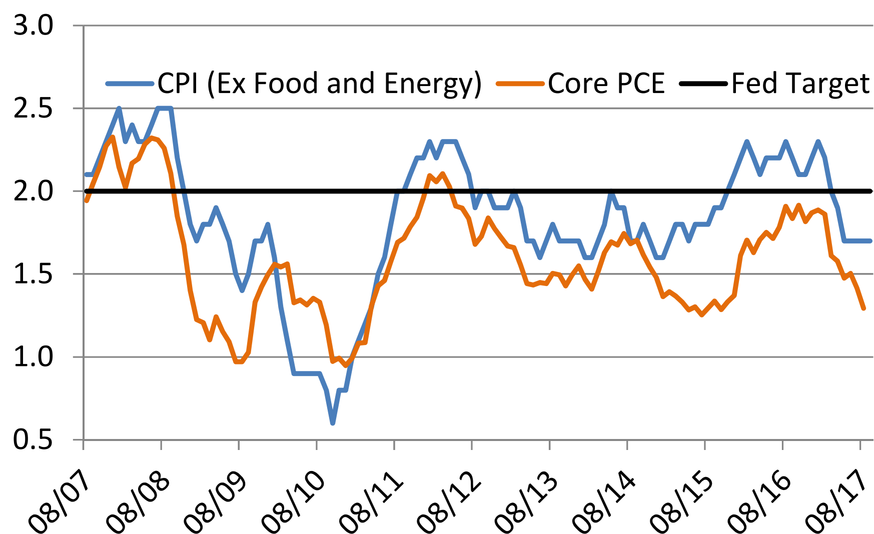
The Fed has maintained hawkish forward guidance despite lowering their near term Core PCE inflation forecasts. The implication is that lagging inflation will not affect their current rate path.

	2017	2018	2019	2020	Longer Run
Change in real GDP	2.4	2.1	2.0	1.8	1.8
Previous projection	2.2	2.1	1.9	n.a.	1.8
Unemployment Rate	4.3	4.1	4.1	4.2	4.6
Previous projection	4.3	4.2	4.2	n.a.	4.6
PCE Inflation	1.6	1.9	2.0	2.0	2.0
Previous projection	1.6	2.0	2.0	n.a.	2.0
Core PCE Inflation	1.5	1.9	2.0	2.0	
Previous projection	1.7	2.0	2.0	n.a.	

Source: Federal Reserve Summary of Economic Projections

(2.) Weakening Core Inflation (% YOY)

Despite historic lows in unemployment, key gages of inflation have begun to pull back. Core PCE, the Fed's preferred measure of inflation, has steadily declined since January and Core CPI has remained flat for the last several months.



Source: Bloomberg L.P.

Loose financial conditions and continued improvements in the labor markets have given the Fed some latitude. A booming stock market, narrow credit spreads and a declining dollar are currently providing cover for a preemptive strike on inflation. Fueled by yet to be fulfilled promises of fiscal stimulus, these markets have seemingly been impervious to the previous three rate hikes. Moreover, the almost seamless start to the Fed's multi-trillion dollar balance sheet run-off has

also reinforced the notion that the Fed has room to maneuver. Given the notable lag time between the implementation of monetary policy and its impact on the economy, the idea is that a hike today will prevent the Fed from playing catch up tomorrow.

Further influencing the Fed's inflation stance has been consistent improvement in the unemployment rate. Over the last eight months it has fallen significantly below the FOMC's 4.6% estimate of long run unemployment to 4.2% (See Exhibit 3).[2] The longer run unemployment rate represents the level below which officials believe unemployment becomes inflationary. Given this steady downward trajectory, it's not unreasonable to assume that at these already low levels, the further reduction of labor slack will finally drive up wages, giving inflation a long awaited boost.

There is near term data that would seem to support this narrative, but it is somewhat clouded by hurricane effects. The September average hourly earnings data shows wage growth ticking up to 2.9%; its highest level since 2009.[3] In addition, upward revisions to the July and August data pushed the year over year rate of growth to 2.6% and 2.7% respectively.[4] For those looking for positive momentum for rising inflation this surely fits the bill. In addition, higher paying industries such as professional and business services saw accelerated wage growth. Although only a nascent step, it is particularly notable since this sector has failed to keep pace this cycle, but will be essential to sustained upward pressure on wages.

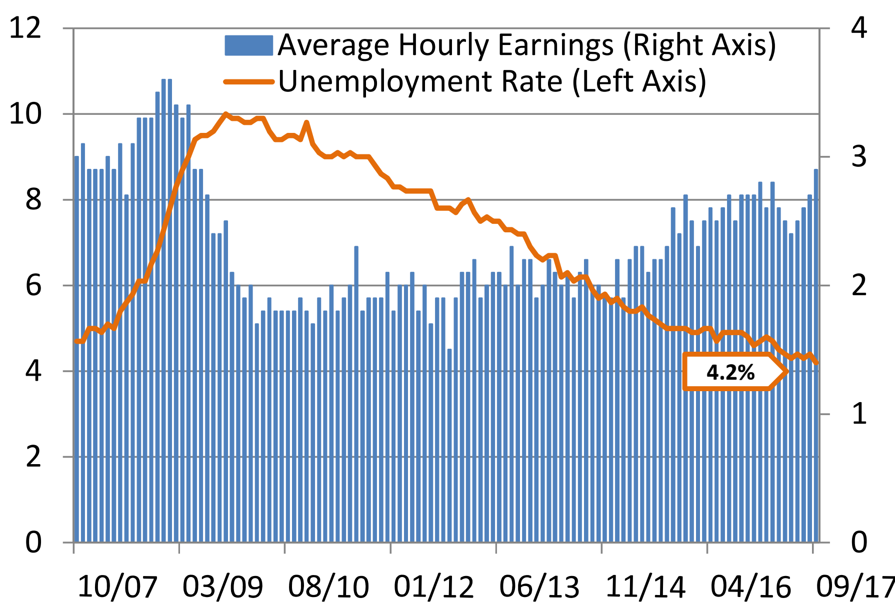
Unfortunately, the data cannot confidently be considered a hawkish signal since there is a strong likelihood it was at least partially influenced by hurricane affected areas in the Gulf Region and the Caribbean. The September payroll data shows over 100k jobs lost in the lower paying Leisure and Hospitality sector.[5] This decline, which heavily impacted food service and bar roles, changed the composition of the worker mix used in the average hourly earnings calculation. As a result, workers in higher earning industries were over-weighted, causing an artificial bump to wage data. That increase will likely be reversed in the coming months as the sector returns to normal. We expect similar temporary distortions of inflationary data in other categories as replacement purchases and relief aid filter into pricing.

Skeptics point out however, that even with the recent upswing in data, the long assumed relationship between employment and inflation, known as the Phillips Curve, appears to be broken or at least diluted. Despite a decline in unemployment from roughly 10% at the height of the Great Recession to nearly 4% now, average hourly earnings have failed to see corresponding growth.[6] Normally by this stage of the recovery the market would expect wage growth to be closer to the 3.5% to 4.5% range. For many this disconnect illustrates that the recent declines in inflation are not idiosyncratic, but instead reflect broader structural trends that should be considered the new normal.

This perspective is bolstered by the fact that low inflation is a phenomenon in many advanced countries and is not unique to the United States. Economist and policymakers have suggested a plethora of explanations. One of the most prominent is the disinflationary effects of technology. The explosion in online retail has led to an unparalleled level of price transparency, allowing customers to purchase the lowest price good or service without sacrificing quality. Technological advances such as smart phones now act as a combined communication device, GPS and mini-computer in your pocket, driving down

(3.) Labor Market Fundamentals (YOY% Chg)

Despite unemployment levels that have fallen below the Fed's longer run unemployment estimate, inflationary pressure from wage growth remains elusive. Although there has been some recent momentum in average hourly earnings, this growth cannot be taken as a clear hawkish signal given market distortions caused by hurricane relief efforts.



Source: Bloomberg L.P.

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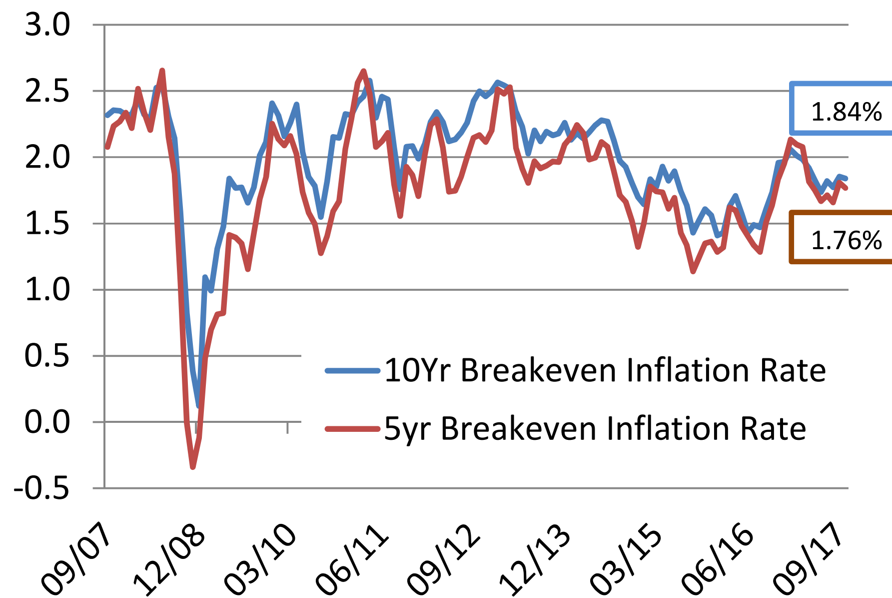
prices for items that use to cost hundreds of dollars individually. Another frequently sited explanation is globalization. The theory that the global workforce in emerging market countries is keeping U.S wages low and creating an oversupply of cheap goods. And finally, the theory that headline unemployment is not fully capturing the weakness in domestic labor supply. This refers to the idea that individuals who have accepted part time employment for economic reasons, but would like a full time position, or those who have taken lower paying jobs than they previously held before the recession, do not have the leverage needed to significantly drive up wages.

The problem with these hypotheses is that they present a long term structural explanation for an inflation trend reversal that is fairly recent. Technological advances and disruptions are not a new occurrence. Similarly, imports and labor supply from countries like China have not significantly increased in the last few months and debates regarding the proper measurement of labor slack have persisted since the recession. Thus it is difficult to draw a direct line from these theories to the change in inflation we are witnessing today. What they do seem to indicate is that the Fed will need to allow for much greater time to reach its target.

For now the Fed appears content in their belief that inflation expectations remain anchored. Inflation expectations are critical because households and businesses make economic choices such as wage contract negotiations or pricing decisions based on where they anticipate inflation is headed. These expectations then become a self-fulfilling prophecy as their decisions feed into the actual rate of increase in prices. Market based measures of inflation expectations such as the 5 year and 10 year TIPS/Treasury breakeven inflation rate, currently reside at 1.76% and 1.84% (See Exhibit 4).[7] Survey

(4.) Inflation Expectations (%)

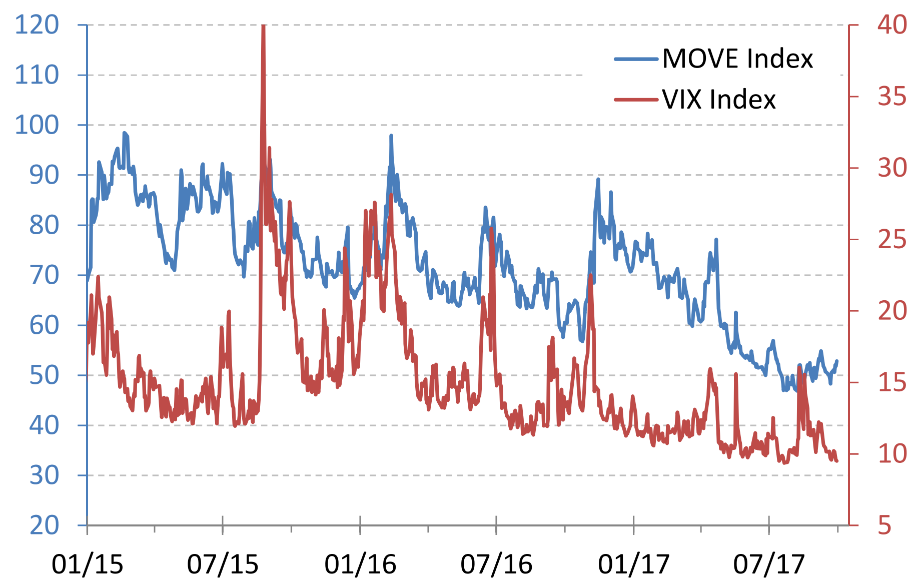
The breakeven inflation rate is a market-based measure of inflation expectations. It is the difference between the yield of a nominal Treasury bond and an inflation-linked bond, such as TIPS, of the same maturity. Inflation expectations are important to monetary policy decisions, because as households and businesses make economic choices their inflation predictions feed into the actual rate of price increases.



Source: Bloomberg L.P.

(5.) Broad Measures of Volatility

As markets continue to climb higher, asset class volatility finds new lows. The MOVE Index measures implied volatility on 1-month Treasury options for a weighted index of the Treasury yield curve. The VIX Index measures implied volatility of 1st and 2nd month options expirations for the S&P 500 Index. Both measures have remained at historical lows throughout the year, extending broader declines since the credit crisis.



Source: Bloomberg L.P.

based measures of inflation such as the University of Michigan survey of consumers, which provides the median expected price change over the next 12 months, show a more robust estimate of 2.7%.[8] As long as expectations remain tethered near the 2% target, the Fed seems likely to continue along their current pace of rate normalization.

As monetary policy temporarily diverges from inflation, investors should be careful not to underestimate the Fed's determination to continue gradually increasing rates and tapering their balance sheet. Although strange to consider, the market may need to prepare for a transition period where inflation is no longer a leading indicator of Fed actions. Until we know more about the underlying drivers of this current low inflation environment, bond positioning will need to be weighted more heavily toward forward guidance over pure economic data. In the interim, while we wait for the Fed to solve its dilemma, bond investors should continue taking a defensive posture by maintaining a short to neutral duration.

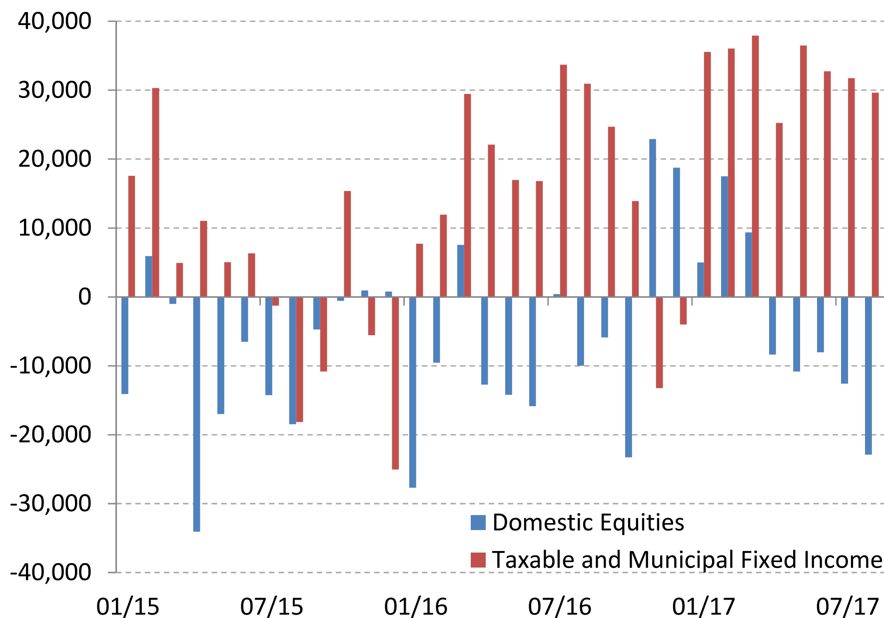
Taxable Credit

Risk up, Vol down

Since the last global selloff way back in the first quarter of 2016, risk assets have enjoyed an almost linear appreciation at perplexingly low levels of market volatility. Without question, the most remarkable characteristic of this ongoing rally is the historically low level of volatility in risk assets across the board (see Exhibit 5). Any and all weakness has been quickly reversed by what seems to be an insatiable bid, waiting for dips and grinding markets higher. Consequentially, neither equities nor credit experienced a 2% dip over a trading week in the last year.[1] The last time equities went that long without a 2% dip in a week was a 62 week stretch in 1994-1996.[2] Year-to-date, S&P is up 14.2%, investment

(6.) Retail Investors Not Quite Euphoric ($ millions)

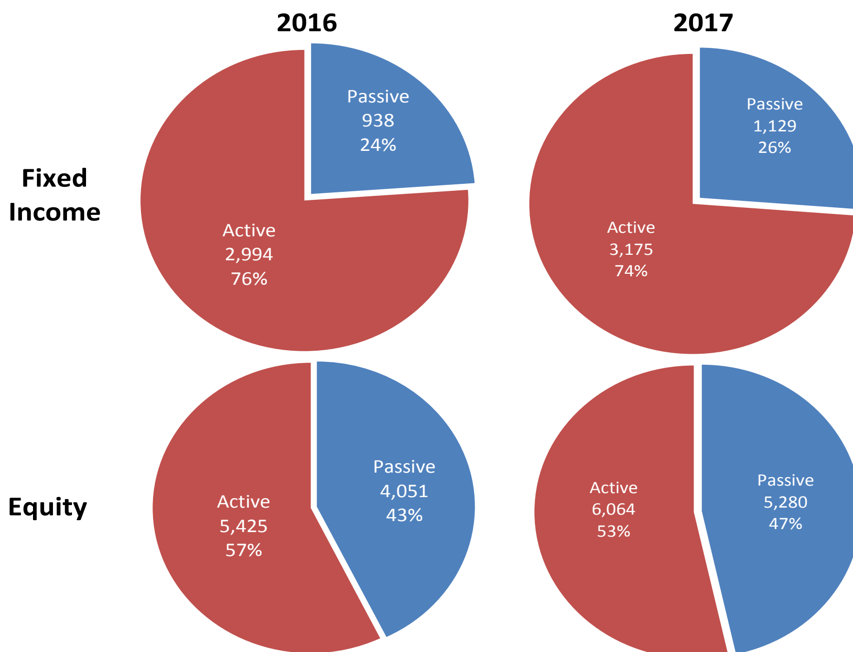
Contrary to what you might expect, fund flows into domestic equities (for both mutual funds and ETFs) has been negative since April of this year. Fixed income, on the other hand, has seen months of healthy inflows, suggesting retail investors are not yet willing to pile into stocks which is typical at a market top.



Source: Bloomberg, L.P.

(7.) Shifting to Passive ($ billions)

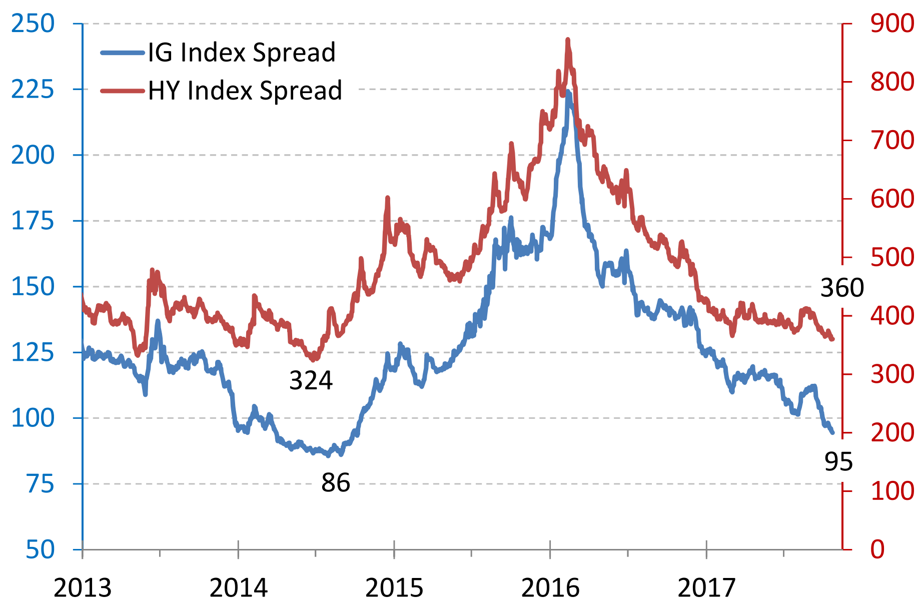
Passive investment strategies for both equities and fixed income continue to gain popularity at the expense of traditional actively-managed vehicles.



Source: Morningstar

(8.) Spreads Testing Lows Before Going Higher (bps)

In 2014, both investment grade and high yield spreads hit record lows. Since the selloff in early 2016, they've maintained a linear compression that we believe can continue a bit longer before changing course. As of September 30th, index levels were approximately 10 bps above recent lows for investment grade and 35 bps above recent lows for high yield—relatively small moves for each respective asset class.



Source: Bloomberg, L.P.

grade corporate debt is up 5.2%, and high yield is up 7.0%.[3]

The relentlessness of this rally seems even more astonishing in light of the ungainly state of political affairs over this same period, where it could be argued that instability regarding policy and leadership has never been higher. The disparity between the two cannot be ignored. We attempted to address this issue last quarter with a message of encouragement to our clients in the face of growing concern that the administration's policy initiatives would be stalled or simply infeasible. Our view then was that, all things considered, and despite policy failures, economic conditions weren't all that bad and the upside outweighed the downside. Since the second quarter, we've only become more convinced that the economy is on a solid footing and that the political drama in Washington should be discounted as it relates to the economic outlook. The persistent lack of volatility, however, is something we've had a hard time explaining.

Low volatility is often attributed to complacency. Though rarely explained, the general idea is that investor confidence in the upward direction of markets and relative comfort with current conditions are sufficient to push markets higher. In a complacent market, pullbacks are seen as nothing more than buying opportunities and are quickly reversed. By and large, this is exactly what we have witnessed over the past 12 months. While this oft referenced complacency narrative provides a simplistic rationale for the current state of low volatility, we find this explanation dangerously shallow. Dangerous in the sense that it ignores the deeper currents that are actually driving trading volatility down and thus will appear to be an adequate rationale only to the point it should suddenly fail. Put another way, the level of complacency will not help to signal the next downturn. It also neglects the fact that individual retail investors generally remain cautious (based on fund flows into fixed income vs. equities, see Exhibit 6) and that our current political landscape is arguably more uncertain than its ever been.

Specifically for fixed income, we view the marked shift to passive investment strategies as a fundamental driver of lower volatility. While not as widespread compared to equities, passive management in fixed income asset classes is progressively growing (see Exhibit 7). As investors continue to pour money into fixed income, they are showing a preference for passive strategies, especially in the ETF space. The effect of this trend is that an increasing proportion of dollars put into fixed income are going to work at an index level, opposed to specific sectors and credits under the discretion of an active manager. Consequentially, the dispersion between credits that you would expect to see towards the later-stages of a cycle, where "good" credits are differentiated from "bad" credits, is muted and thus manufactures an appearance of a uniform market.

The impact foreign investors have on demand for domestic fixed income also translates into reduced market volatility, in our opinion. The steady flow of foreign capital into investment grade credit from large institutional buyers is something we've discussed frequently due to the significance of the trend to our markets. Given the relative attractiveness of domestic yields after hedging for currency risk, foreign institutional buyers have made uncharacteristic moves into high-quality credit sectors including taxable municipal bonds. The result of this atypical foreign demand has been limited selloffs and quick recoveries, muting volatility and pushing credit higher.

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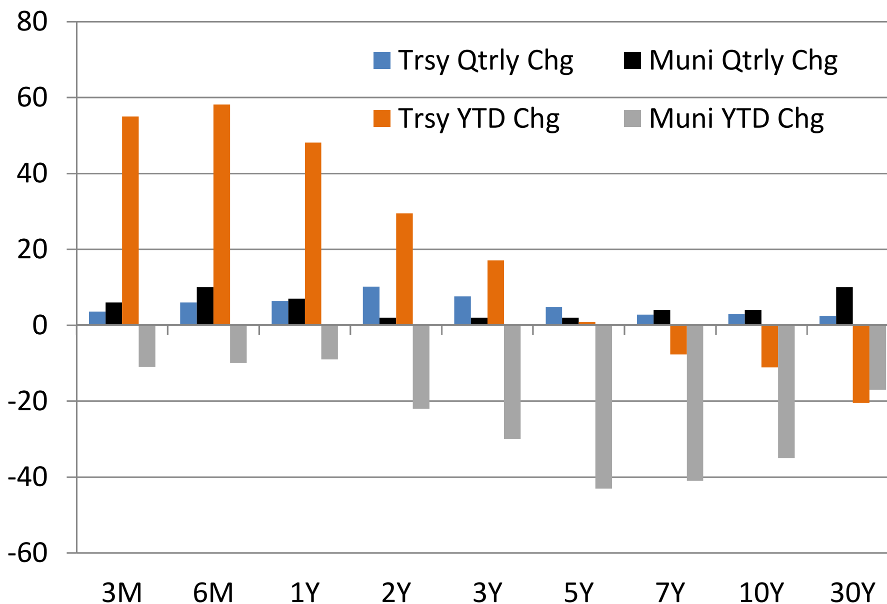
Taken at face value, and especially from an index perspective, risk asset volatility continues to be subdued. The source of this low volatility, however, is not simply investor complacency. Passive investment and foreign support have worked together to put money to work broadly across asset classes and at the same time minimize the impact of selloffs. Additionally, in our view, low vol begets low vol. Specifically, hedging costs are not as expensive as a result of lower implied volatility, hence downside protection becomes easier which in itself can proliferate lower vol.

Looking forward, we expect this trend to continue and we remain convinced that the risk asset expansion will continue in the medium-term. Our guess continues to be that we are in a late-stage of the business cycle, and we'll generally stay here until we see substantially tighter monetary policy, declining employment and unsustainable corporate leverage. Credit spreads have historically been a pretty good indicator of financial distress, and our view is that we retest the tights of 2014 before going higher (see Exhibit 8). However, we do anticipate the Fed to continue to tighten monetary policy as inflation pressures gradually build, therefore we expect short rates to continue to drift higher, presenting a much more palatable investment landscape for short-duration assets. Further, if lawmakers are able to push through any of the policy initiatives currently on the table, while possibly a catalyst for a short-term boost in asset prices, we'd caution any fiscal easing applied this late in the cycle would give the FOMC good reason to increase the pace of tightening. Otherwise, we anticipate more low vol markets and high vol politics as the late-stage expansion continues.

(9.) Municipal vs. Treasury Curve (bps)

Year to date favorable supply and demand dynamics have helped munis outperform the Treasury market. For the 3rd quarter, muni yield curve movements were largely flat and in step with Treasury curve shifts, with the exception of tax reform and insurance related selling in the long end of the curve.



Source: Bloomberg L.P.

Municipal Credit:

Man vs. Nature:

The market's remarkably muted response to the natural disasters that have swept across the Gulf Region, the Caribbean and more recently California, are a testament to the fact that often man can be his own worst enemy. Despite hurricane related damages which are expected to cost hundreds of billions of dollars in recovery expenses, the muni market remained relatively firm. Muni yields inched mildly higher, primarily in response to changes in the Treasury market rather than significant credit concerns in the affected disaster areas. This untroubled response by the market is a result of our cooperative federalist system, which inherently cushions muni credit. Aid from the federal government provides downside protection to any individual state by dispersing the cost of extreme scenario risk amongst all the states; greatly reducing the probability of local defaults. However, where Mother Nature's wrath failed to shake muni credit, state and federal politicians may succeed. Poor financial decision making in states like Connecticut and Pennsylvania have led to credit downgrades and political maneuvering on economic behemoths like healthcare may lead to less stability in the sector. Thus as we head into the fourth quarter our focus remains trained on man-made disasters, not natural ones.

Market Update:

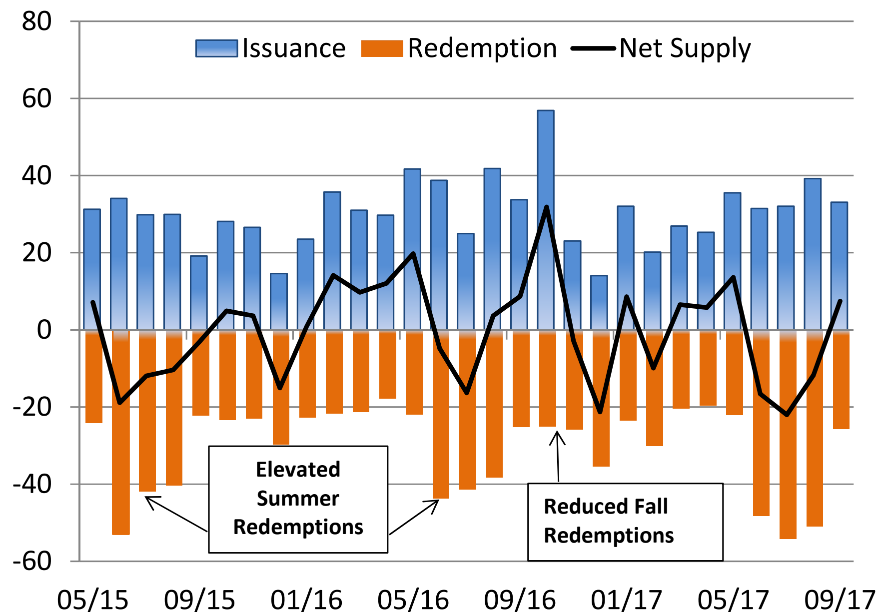
Year to date the municipal market has consistently outperformed Treasuries across the majority of the yield curve (See Exhibit 9). Much of this positive performance can be traced to lower supply matched with strong demand. However, the autumn months will represent a transition for municipal technicals. Bond redemptions typically decline during this time of the year,

reducing reinvestment demand and providing opportunities for muni buyers (See Exhibit 10). Although excess cash from investors previously sidelined by rich summer muni/ Treasury ratios will keep muni bids well supported, the 4th quarter may provide strategic entry points. Absent heightened discussions over corporate tax reform, the last wave of primary supply prior to the holiday lull period may provide a good opportunity between now and year end to add high-quality, low volatility muni paper to one's portfolio.

Beyond technicals, the muni market finished the quarter flat to where it started at the end of June. For most of the period, the muni market moved in tandem with Treasuries as yields dipped in response to the escalation of North Korean geopolitical tensions and rose with hawkish monetary policy commentary from the Fed. However, the long end of the curve appeared to defy this pattern. Thirty year maturities cheapened relative to Treasuries, posting ratios hovering near parity. This initially sparked concerns of a yield steepening trend in the 5 to 30 year segment of the curve. However, we think such a change will likely be short lived. It reflects renewed attention to comprehensive tax reform (see Special Commentary Section) and fears over property and casualty insurance selling in response to natural disaster related settlements rather than a signal that economic fundamentals have shifted. Nevertheless, given the limited risk return payoff at the far end of the curve, we continue to prefer somewhat shorter duration positioning in preparation for central bank tightening and corporate tax reform or a modified barbell strategy where the longer maturities are limited to the 10 to 15 year maturity range.

(10.) Municipal Supply ($Billions)

Bond redemptions typically decline during the fourth quarter, reducing reinvestment demand and providing potential entry point opportunities for municipal buyers.



Source: Bloomberg L.P.

Weathering the Storm:

Federal disaster relief provides powerful protection against credit pressure for municipalities in the wake of a natural disaster. Although the tragic consequences of such events should never be discounted, in terms of the financial effects, federal reimbursements and recovery aid largely mute the credit impact. Within weeks of hurricane Harvey, the federal government had approved a relief package of $15.25 billion and within the coming weeks they are expected to approve a second disaster relief package for $36.5 billion.[1]

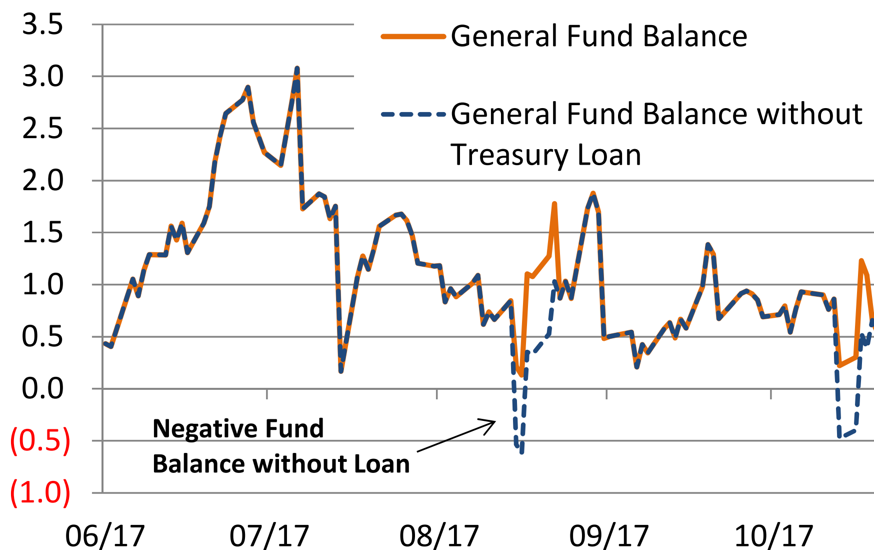
If the aftermath of hurricane Sandy and Katrina is any indicator, we expect to see financial stress lead to the downgrades of smaller localities and lower rated credits, but few if any defaults. Moody's recorded no defaults in the wake of hurricane Katrina and while roughly half of reviewed issuers saw some credit deterioration in the short term, over the long run, recovery and upgrades exceeded pre-storm levels. This is because as rebuilding and relief efforts ramp up, they provide a stimulative effect on the local economy, that when paired with state and federal emergency aid provides support for a positive credit trajectory.

In the near term, the primary risk to municipal credits is lack of liquidity. Muni issuers and local governments incur the upfront costs of clean up, emergency services and rebuilding, thus it is particularly important that their funds and reserve balances can absorb temporary declines or disruptions in tax revenue for the first year. Federal loans or short term borrowing, for municipalities that can access the market, also provide an important stop gap until federal aid is available. In most scenarios FEMA reimburses at least 3/4 of the costs to local governments, but the timing of that financial assistance is not guaranteed. [2] The FEMA process is notoriously bureaucratic and rife with delays, thus making issuers most vulnerable to financial pressures during this timeframe.

Other long term risks include lasting impacts such as population loss or tourism decline. In an area such as Puerto Rico where the humanitarian

(11.) Pennsylvania Liquidity ($Billions)

Due to structural budget problems and political gridlock the state of Pennsylvania has found itself confronted with liquidity pressure. Without inter-government lending the state would have twice registered a negative fund balance only a few months into the start of the fiscal year.



implications of the storm remain horrifying, this will exasperate an already sizable exodus from the island and drain scarce financial resources. However the credit impact is minimal as many of the islands issuers have already defaulted or were expected to in the near future. While we do expect the storms to further reduce bondholder recovery rates, there is also the possibility that FEMA aid may accelerate the construction of necessary infrastructure critical to the island's long term economic future.

In general, Puerto Rico remains the exception not the rule. Thus for investors looking to navigate post-natural disaster credits, strong liquidity, reserve balances and access to bridge cash flow should remain a central focus.

Man Made Disasters:

While the human toll of a natural disaster can never be compared to a man-made budget crisis, the long term impact on credit can be similar. The primary difference being that a man-made credit disaster is often avoidable. Political discord, poor decision making and a reluctance to make hard choices have left both Connecticut and Pennsylvania facing difficult budget pressures.

In late September, after perpetual political gridlock and an ongoing budget stalemate, Standard and Poor's downgraded Pennsylvania's general obligation debt from AA- to A+. The state has a long history of budget delays that are frequently fixed with one-off, short term solutions. However, this year the state has run out of quick fixes and has found itself confronting a liquidity shortfall. For fiscal year 2018, the legislature passed a $32 billion spending bill with no plan to pay for it.[3] The bill came with a $2.2 billion deficit increase built in.[4] They are also faced with a $1.5 billion dollar deficit bill from the previous year.[5] Hence it was no surprise that by August, just a few weeks in to the fiscal year, the state was already borrowing from its Treasury fund to meet its expenses (See Exhibit 11).

Internal borrowing to meet funding gaps is not unusual, but it does put additional liquidity pressure on the state since that type of borrowing must be repaid in the same fiscal year. This year that will be particularly challenging given their depleted rainy day reserves and lower than anticipated tax revenues. Local municipalities, school districts and state universities will likely feel the brunt of the liquidity crunch as state aid is reduced to meet spending commitments. New bond market issuance, albeit at higher yields, will also help fill the void.

In the short term, Pennsylvania's budget woes will be difficult but not insurmountable; however if unchecked the larger pattern of political conflict preventing bipartisan solutions will lead to further man made credit problems down the road. For now, we believe the state's liquidity problems will primarily impact local municipalities. Investors can take comfort in the fact that G.O. bonds remain protected by a priority lien on state revenues and the requirement under the state constitution that G.O. bonds are paid even without the passage of a budget.

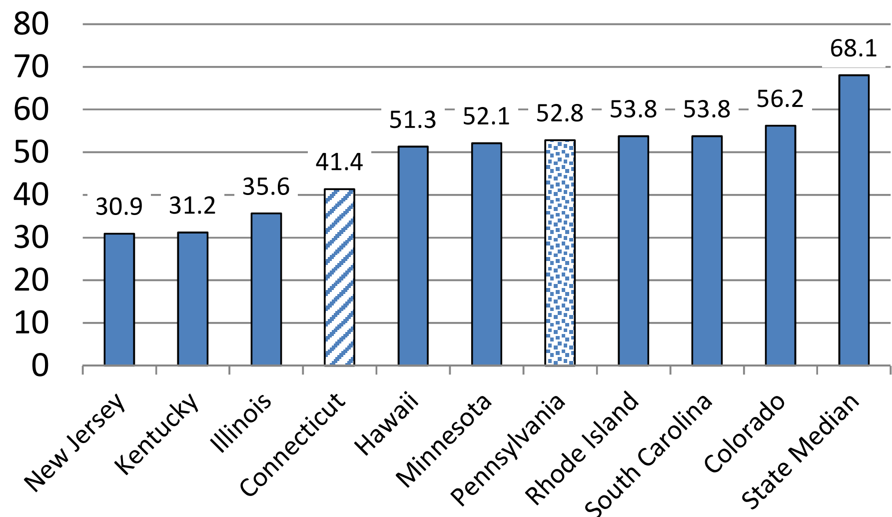
In Connecticut, partisan acrimony has compounded budgetary problems that are driven by a lagging economy. Although the state continues to have the top per capita income levels in the country and a very diverse economy, growth has slowed precipitously since the Great Recession. Though financial sector jobs have rebounded in the rest of the country, they have failed to return to their pre-financial crisis levels in Connecticut. High profile business relocations and a declining population have reduced the political will to raise taxes further.

This has made it difficult to address fundamental long term issues such as rising fixed debt, pensions and OPEB (Other Post Employment Benefits) expenditures. The state has the highest debt per GDP ratio in the nation at 9.2% and one of the lowest funded

pension ratios at 41.4% (See Exhibit 12).[6] An executive order by the governor, requiring deep cuts to local municipalities and school districts has warded off near term liquidity issues and maintained moderate structural balance. Yet, such steps have come at the expense of disruption to local services at a time when population declines are already a concern. The solutions are politically complex and while strong governance rules may help buffer some of the recent credit pressure, they will not protect against further downgrades if decisive legislative actions are not taken. Thus while the financial impact of storms can be immense, it is often the self-inflicted financial wounds that cut the deepest.

(12.) Lowest 10 State Pension Funding Ratios (%)

Although Connecticut has some of the highest wealth levels in the nation, it is also burdened by high fixed debt costs and pension obligations. The state's pension funding ratio ranks it as the fourth worst in the country. Pennsylvania is also confronting underfunded pension plans, but investors can take some solace in the fact that in the last two years the legislature has taken concrete action and increased their actuarial payment amounts. Both states have a long road ahead to correct the situation.



Source: Standard and Poor's

Healthcare Shake Up:

In addition to state and local budget gridlock, a potential man-made muni disaster is also taking form at the federal level. After several attempts to repeal and replace the Affordable Care Act (ACA), also known as Obamacare, the president has decided to tackle the issue by halting federal payments to insurers for cost-sharing reductions (CSRs). In addition, an executive order would expand the use of short term insurance policies and the use of association health plans.

The changes threaten to create instability in the ACA marketplaces, but perhaps equally as critical are the implications for non-profit hospital balance sheets and the federal budget. The CSRs payments help healthcare insurers lower the cost for low income and middle class Americans; without them insurance companies are likely to raise premiums and stop selling healthcare insurance in less populated, rural parts of the country. This upward pressure on premiums will impact a separate set of subsidies provided directly to individuals with ACA coverage. These subsidies are designed to keep healthcare premiums affordable by increasing the dollar amount of federal assistance as premiums rise. As a result, the termination of the CSR subsidies will ultimately cost taxpayers more money. According to the Congressional Budget Office (CBO), eliminating CSRs would increase federal costs by $6 billion in 2018 and $21 billion in 2020. If the CBO estimates prove correct, this would increase the federal deficit by $194 billion by 2026.

The executive orders will also have the potential to change the demographics of existing healthcare insurance pools, further pushing up premiums and increasing the probability of bad debt. The goal of the executive order is to provide the market with a greater number of low cost health care options. Short term policies cost less because they are not as comprehensive and often do not cover treatments for pre-existing conditions, maternity care or prescription drugs. Indeed, while short term plans may be a suitable and more affordable option for younger and healthier individuals, an exodus of this demographic from existing plans would leave a higher concentration of older and sick individuals in the current insurance pools. The end result of greater risk in pools is higher premiums and an increased likelyhood that more individuals will forego insurance unless it is necessary. This could result in greater charity care costs for hospitals as well as a decline in demand for services.

The expansion of association health plans may present similar negative effects. Association health plans allow small businesses and organizations with a commonality to band together and insure their employees in a larger pool. In theory the larger number of participating individuals will allow for greater negotiation leverage and lower premiums. However, critics point out that associations are lightly regulated and have a poor track record of leaving medical claims unpaid. Thus once again, non-profit hospitals become the insurer of last resort as they are forced to assume the costs of treatment from weak plans and unreliable third party insurers.

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(13.) Big Six Tax Reform Summary

In its current state the Big Six tax proposal is less a comprehensive tax plan than a broad framework of ideas. Until the GOP provides a detailed cost analysis of its proposed bill, it will be difficult to gage the economic impact of the plan.

	Current Tax System	Tax Reform Proposal
Individual Income Tax	7 Brackets, 39.6% top tax rate	3 Brackets, 12%, 25%,35% (additional top bracket may be added)
Standard Deductions	Single: $6,350 Married: $12,700	Single: $12,000 Married: $24,000
Itemized Deductions	Various ex: property taxes, mortgage interest, state and local income tax, charitable	Eliminate most itemized deductions except for mortgage interest and charitable contributions
Alternative Minimum Tax (AMT)	Yes	No
Corporate Tax Rate	35%	20%
Pass Through Tax Rate (Partnerhips)	Individual Tax Rate	Maximum Limit: 25%
Foreign Earnings/Reparations	Taxed at corporate rate when returned to U.S	Taxed on accumulated foreign earnings and then territorial system

Source: IRS, Tax Policy Center, Committee for a Responsible Federal Budget

Until now, healthcare bonds have been able to manage the volatility caused by political turmoil fairly well. Despite, or perhaps because of, the political challenges to the ACA, municipal healthcare bonds have outperformed this year. After an initial spike in yields following the November elections, healthcare credit spreads have narrowed to multi-year lows. Hospital muni bonds have been able to ride the wave of lower supply toward tighter spreads with the rest of the muni market, however it may be a man-made tsunami that brings this rally to an end.

In the near term, hospitals have some protection since insurance premiums have already been set for the year. As such we are comfortable holding multi-state hospital systems that benefit from economies of scale and state diversification over stand alone hospitals. However, over the long term the recent executive actions will be a credit negative, unless a bipartisan congressional solution is found.

Special Commentary:

Tax Reform

After much anticipation, the Republican party's "Big Six", a group of negotiators from the House, Senate and Trump administration, released their long awaited tax reform plan. Unfortunately, for those craving details on this massive fiscal policy undertaking, the proposal was less a comprehensive plan than a broad outline of tax reform principals. Although, the new tax framework was enough to add fuel to the "Trump trade," a term for market bets that Trump's policies will lift inflation and growth, it left many major questions unanswered. However, what we do know is that the framework closely aligns with the goals outlined during Trump's presidential campaign, while coalescing around many of the specific rates and tax limits set forth in the Paul Ryan "Better Way Plan." (See Exhibit 13).

Highlights of the plan include a simplified income tax that reduces the number of tax brackets from 7 (top marginal tax rate of 39.6%) to 3 brackets (12%, 25%, 35%) with an option to add a fourth top tier bracket.[1] It also aims to eliminate all itemized deductions, except for mortgage interest and charitable contributions, while roughly doubling the standard deduction for individuals and married couples. For corporations the framework would reduce the tax rate from 35% to 20% (an increase from Trump's campaign target of 15%).[2] It would also allow for the immediate expensing of capital investments on depreciable assets (other than structures) for at least 5 years and create a path for repatriation of foreign earnings in order to restructure corporate taxation as a territorial system. Finally, pass-through entities commonly used by small businesses, such as partnerships, S corps and sole proprietorships, would benefit from a lower maximum tax rate of 25%.[3]

Although there is much to pique the interest of supply-side economics proponents, the glaring omission of the Big Six framework is that it does not make any cost projections or outline how these massive tax cuts will be paid for. This significant lack of detail makes any analysis of the plan extremely preliminary. That said, the

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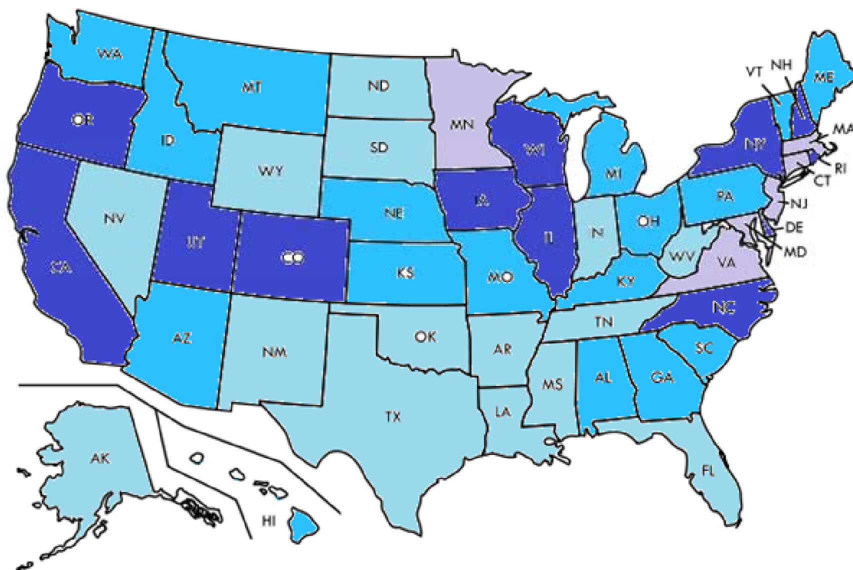
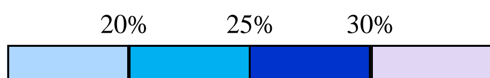
(14.) % of Tax Units with Increase from SALT Repeal

According to estimates, the elimination of the State and Local Tax deduction would raise taxes on 24% of taxpayers nationwide, many of them solidly middle class families. Although the heaviest burden would be felt in democratic strongholds like New York and California, Republican districts would also be impacted.



Source: Tax Policy Center



Committee for a Responsible Federal Budget (CRFB), a bipartisan public policy organization, has attempted to use the framework and publicly available statements by Big Six members to create a rough estimate of the cost to tax reform.

According to CRFB estimates, the plan would cost $5.8 trillion over a 10 year budget period.[4] To place this in context, the total Treasury debt held by the public is $14.7 trillion; meaning tax reform would cost over 1/3 of the current public debt.[5] The goal of the GOP is to offset these large tax cuts by broadening the size of the tax base. This would be accomplished by closing loopholes in the tax code and eliminating deductions and other tax benefits to increase federal revenue. The CRFB projects revenue offsets would raise approximately $3.6 trillion, though again, it is important to note that the revenue generators are not explicitly listed in the proposal itself.[6] While these numbers are subject to a high degree of uncertainty given the scant details of the GOP framework, they do provide a general gage of the plan's overall impact on the budget deficit. Under these assumptions, tax reform would add roughly $2.2 trillion to the federal deficit over the next decade.[7]

If these estimates are correct, the GOP will begin the climb toward the already challenging prospect of tax reform with a $700 billion weight strapped to its back. This is because the Senate has currently agreed to a budget resolution that only allows for a $1.5 trillion deficit.[8] A budget resolution is necessary since Republicans intend to pass tax reform by using the reconciliation process. Reconciliation allows a bill to pass the senate using a simple majority vote rather than the normal 60 vote requirement. However, reconciliation does not allow for a deficit increase beyond the 10 year budget window. Thus, even if the Republicans avoid compromising on revenue generators like deduction repeals, an unlikely prospect in an age of powerful lobbyist and special interest groups, the current framework would need to be scaled back to pass the reconciliation process or the GOP will have to settle for temporary tax cuts that expire after 10 years.

This dilemma is central to understanding the difficult path ahead for comprehensive tax reform. A temporary tax cut would provide the GOP with a badly needed policy win prior to the 2018 mid-term elections, but it would also severely undermine the larger goal of restructuring the corporate tax system. There is little logic in asking American businesses to overhaul their long term profit strategy to fit a new territorial tax system, only to have it disappear in ten years. At the same time, a tax plan that significantly expands the deficit risks creating interparty turmoil between deficit hawks and the rest of the party. As we saw during the failure to repeal and replace Obamacare, even using a simple majority voting process, it takes only 3 Republican senators to torpedo major legislative initiatives. Thus the Republican Party has only a limited amount of room to maneuver.

The difficulty in unifying a majority behind tax reform "pay fors" should not be underestimated. In addition to the factions that emerged during the healthcare reform debate, which was expected to save roughly $1 trillion in revenue through spending cuts, the GOP was also unable to garner support for the Border Adjustment Tax (BAT), another key revenue raising plan.[9] BAT,

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a destination based cash flow tax which would have imposed a tax on imports while allowing exports to go untaxed, was also expected to generate approximately $1 trillion in revenue.[10] However, the idea was quickly scuttled once lobbyist for large retail companies like Wal-Mart stepped in and rebranded the initiative as a consumption tax on consumers. The GOPs next big revenue generation idea, the elimination of the State and Local Tax deduction (SALT), is already coming under similar pressure from interest groups.

SALT is one of the largest federal itemized tax deductions. According to the Tax Policy Center the elimination of the SALT deduction would increase federal revenue by $1.3 trillion over the next 10 years.[11] Initially it appeared like an easy target for Republicans, since the deduction primarily benefits high tax, blue states (See Exhibit 14). For example, taxpayers in California and New York alone would pay 30% of the tax increase from eliminating SALT. After the November election, it was widely believed that blue state Republicans would be willing to "take one for the team" in order to accomplish the long revered GOP goal of overhauling and simplifying the tax system.

However, as we approach the mid-term elections and the Republican controlled Congress has failed to notch any significant legislative wins, those same blue state Republicans are particularly vulnerable. House districts with the greatest share of tax payers that take the deduction are about evenly split between Republicans and Democrats. Adding to the complexity is the tax policy center's estimate that under the current framework, 24% of taxpayers nationwide would see a tax increase if SALT is eliminated.[12] Of those individuals, 90% make over $100k and 40% of this cohort have incomes over $500k.[13] Convincing Republican congress members that a tax increase on the middle class is in their long term political interest will be a heavy lift. To pass tax reform through congress, House Speaker, Paul Ryan will need 218 votes from the 240 Republican majority. That means he can afford to lose only 22 votes; a challenging scenario given that 52 Republicans reside in districts that benefit from SALT.

As the SALT deduction is a critical potential revenue source for tax reform, we do not believe the idea will be jettisoned all together. There is still a great deal of enthusiasm among Republicans to get tax reform passed. The most likely resolution will be a cap on the SALT deduction or a cap on a taxpayer's cumulative deductions, rather than all out repeal. As such, we stand by our assertion that the change will create additional demand for in-state bonds in high tax states. However, the lower amount of revenue raised from a capped deduction verses a full SALT repeal does once again focus us on the deficit implications of the tax proposal.

The fate of the tax plan may rest on how much latitude traditional deficit hawks are willing to give to a concept called dynamic scoring. Dynamic scoring is a tool used by congress to estimate the impact tax cuts or other forms of fiscal policy will have on components of economic growth such as jobs, wages and investment. A good score indicates the tax cuts will stimulate enough economic growth to increase federal revenue and thereby justify the tax change. The problem with this scenario, is that most economists find the practice controversial. There is no standard methodology for dynamic scoring, which means that assumptions can be adjusted to fit desired results.

Moreover, economic growth is driven by a variety of variables, making it difficult to prove a strong correlation between growth and tax cuts. For instance, in 1990 President George Herbert Walker Bush raised taxes. This was followed up in 1993 by an increase in the top marginal tax rate by President Bill Clinton. In both cases, gross domestic product (GDP) increased over the next 5 years. In contrast, President George W. Bush cut taxes in 2001 and 2003 only to see mild expansion and later the Great Recession. Likewise, from the 1950s through the 1970s top taxes rates were nearly twice as high as they are now, yet this was also one of the most rapid periods of GDP growth for the country. This does not mean that tax cuts don't encourage economic growth merely that their direct effect is difficult to measure or predict. Finally, tax cuts financed by deficit spending can often counter their economic growth impact by pushing up the cost of corporate borrowing as the total amount of national debt climbs; making the issue all the more complex.

Nevertheless, dynamic scoring may offer the clearest path forward for Republicans. Although it is still too early to determine what their final deficit tolerance level will be, Republicans have shown a willingness to explore an increase as a viable option. Some, like Representative Mark Walker of North Carolina, who referred to the deficit as "...a great talking point when you have an administration that's Democrat-led," have shown themselves to be very amendable to the idea.[14] But even hardliners like Senator Bob Corker of Tennessee who has stated that he considers the deficit the greatest threat to our nation and that he would not support a deal that adds even "one penny to the deficit" has left open the door to a reasonable dynamic score.[15] Of course the true test will be in getting the various Republican factions to agree upon what a reasonable dynamic score looks like.

Despite the many unanswered questions, given the GOPs long term enthusiasm for a sizeable tax decrease as well as their need to put a win on the board prior to the 2018 elections, we remain biased toward the idea they will find a plan that is both legislatively and

politically palatable. Though, the final plan may look less like a comprehensive tax code overhaul and more like modest reform or temporary tax cuts. However there does remain a high degree of execution risk and an increasing probability that a deal may result in the ballooning of the deficit. It is still early, and all options remain on the table, but for now the muni tax-exemption appears safe. We remain weighted toward in-state bonds in high tax states verses national bonds given the importance of SALT revenue to the tax plan's economic feasibility and we favor a shorter or neutral duration in the event an increase to the deficit places upward pressure on rates.

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Endnotes: Sources

U.S. Economic Section

1. Bloomberg L.P.
2. The Federal Reserve, Bloomberg L.P.
3. Bloomberg L.P.
4. Bloomberg L.P.
5. Bureau of Labor Statistics
6. Bloomberg L.P.
7. Bloomberg L.P.
8. Bloomberg L.P.

Taxable Section

1. Bloomberg L.P.
2. Bloomberg L.P.
3. Bloomberg L.P.

Municipal Section

1. New York Times
2. Moody's
3. Pennsylvania Treasury
4. Pennsylvania Treasury
5. Pennsylvania Treasury
6. Moody's, Standard and Poors
7. Congressional Budget Office
8. Congressional Budget Office

Special Commentary

1. Tax Policy Center
2. Tax Policy Center
3. Tax Policy Center
4. Committee for a Responsible Federal Budget
5. U.S Department of the Treasury
6. Committee for a Responsible Federal Budget
7. Committee for a Responsible Federal Budget
8. United States Senate Committee on the Budget
9. The Federal Office of Management and Budget
10. U.S. Census Bureau
11. Tax Policy Center
12. Tax Policy Center
13. Tax Policy Center
14. New York Times
15. New York Times

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