Loop Capital

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Fed Sees Path, But Do They Know Where It Leads?

Is the Fed's Summary of Economic Projections becoming an exercise in wish fulfillment? Do the Fed's expectations, if they were to occur, imply a change in policy over the forecast period?

By Chris Mier, CFA | Strategist

It is probably a little late to be perusing the Fed's September Summary of Economic Projections (SEP) as analysts have had seven weeks to rip it apart, plus the benefit of another FOMC meeting on November 8th. Any meaningful information has already been wrung out of it. Nonetheless, I found myself looking at the median projections for the change in real GDP for 2018, 2019, and 2020, which were 3.1%, 2.5%, and 2.0%, respectively. In mulling over the time path by which those expectations would be achieved, I found myself somewhat amazed by the rapidly diminishing quarterly pattern of numbers that would be needed for the economy to decelerate from 3.1% in 2018 to 2.0%, just slightly more than trend, in 2020. While there is an infinite number of patterns that could achieve the annualized forecasts, a fairly typical one might be, hypothetically, for 2.6% growth 4Q18, the consensus expectation on Bloomberg, followed by 2.2%, 2.2%, 2.0%, and 1.8% in 2019 and then 2.0%, 2.2%, 2.0% and 2.0% in 2020. Unless my math is wrong, that would produce 2.5% annual growth for 2019 and 2.0% growth for 2020. The point is that the Fed's median expectation requires a pretty rapid deceleration in the quarterly pace of growth. Is the market priced for that?

It is worth recalling that the recent romance we have had with growth of 3% or higher has been a brief one. Only three of last twelve quarters have met a 3% or higher hurdle, and two of those quarters just occurred. What the FOMC SEP forecast says, taking the longer view, is that after a brief interlude of growth, substantially boosted by the TCJA and the BBA, we are going to return to the similar sub-par performance that we had endured for quite some time previous to the recent growth spurt. The slower pace of growth for 2019 and 2020 will be understood in terms of the reduction in Fed accommodation, the advanced state of the business cycle, and the exhaustion of fiscal stimulus while the period leading up to the recent economic bloom was described as underperformance due to weak productivity growth, weak wage growth, and an array of other maladies. Same numbers, different context.

The question that I think is interesting is what will the Fed do if they get the numbers that they are forecasting? Given that the 12-month standard deviation of quarterly GDP growth rates is just under 1%, the result in any given quarter, as we well know, can fluctuate widely. What will the Fed do if on the way to the 2.1% growth trend in 2020, random fortune produces a quarter of something like 0.5% growth? It could be the definitive test of the Fed's independence. The Administration would likely unleash a

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torrent of criticism on the Fed. A weak spate of numbers, even if following the anticipated trend, would also test the level of confidence the Fed has in their arsenal of tools to stimulate the economy, especially given that the SEP anticipates the high water mark for Fed Funds at a relatively low 3.4%. That does not provide a very large buffer from the zero bound should the Fed become wary about the strength of the economy.

The path the Fed sees, as described by the SEP, is like Lake Wobegon. In Lake Wobegon all children are above average. In the FOMC's SEP, unemployment does not fall enough to stimulate unwanted inflation, inflation warms up nicely according to plan, and the economy decelerates towards the long term trend in a thoroughly well-mannered way. The SEP expectation assumes that the Fed will succeed perfectly in meeting their dual objectives and that the economy and the financial markets will behave in ways that will conform to the predictions. That is not likely to happen. Perhaps it is more realistic to view the FOMC's projections as a political requirement that the Fed must engage in, rather than an actual view into the future trend of the economy. Markets don't like too much dissention on the FOMC. If the range of forecasts started to widen out and individual members confessed to anticipating patterns of growth that were too unique, financial markets would become disturbed. The value of the exercise, however, is diminished if the projections always anticipate masterful fulfillment of the Fed's goals. Maybe the time has come for the Fed to keep their forecasts in-house. That would provide FOMC members with more freedom to consider alternative patterns of growth and inflation that may be more useful in anticipating changes in monetary policy.

Economic and Interest Rate Forecast — November 2018

Factors Supportive of Lower Rates

Housing starts and new home sales fell 5.3% and 5.5%, respectively, while existing home sales declined for 6th consecutive month in September by 3.4%, confirming that the housing sector is experiencing headwinds amid rising interest rates and high home prices.

Global economic growth has softened, with Germany and Japan both expected to report negative Q3 growth rates. While softness is seen as transitory, Fed's tighter monetary policy and strong dollar are creating problems for weaker economies, especially in emerging markets.

Factors Supportive of Higher Rates

The U.S. added 250K jobs in October vs. 200K forecast, confirming the robustness of the job market. With many employers struggling to find qualified employees, average hourly earnings rose 3.1% YoY, the fastest rate since 2009. The unemployment rate held steady at 3.7%.

Industrial production advanced 4.7% in Q3 vs. 3.3% reported previously. Durable goods orders increased 0.7% in September on solid demand for autos and volatile military aircraft subsector amid rapid hiring in the manufacturing sector, while factory orders were up 0.7%.

U.S. vehicle sales of annualized 17.5 million units in October beat expectations despite the headwinds of higher interest rates and import tariffs. Consumers replacing their passenger cars with more expensive SUVs and crossovers are pushing average vehicle prices up.

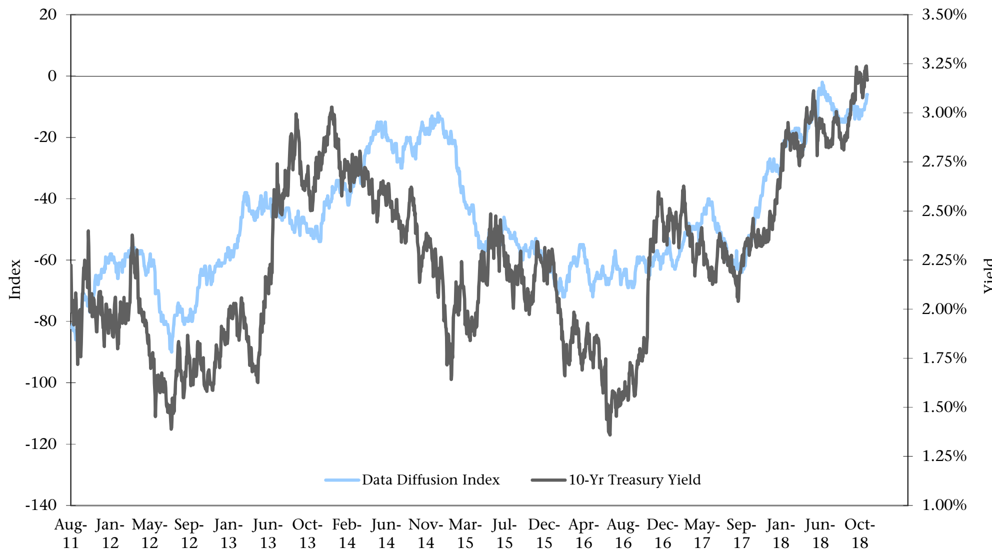
Figure 1 **Economic and Interest Rate Forecast — November 2018**

	3Q'17	4Q'17	1Q'18	2Q'18	3Q'18	4Q'18	1Q'19	2Q'19	3Q'19	4Q'19	1Q'20	2Q'20	3Q'20	4Q'20	Avg'17	Avg'18	Avg'19	Avg'20
Economic Forecasts																		
Real GDP	2.8	2.3	2.2	4.2	3.5	2.8	2.6	2.5	2.4	2.3	2.2	2.1	2.0	1.9	2.2	2.9	2.8	2.2
Core PCE Deflator	1.5	1.6	1.7	1.9	2.0	2.0	2.1	2.2	2.2	2.3	2.1	2.1	2.0	2.0	1.6	1.9	2.2	2.1
Unemployment Rate*	4.3	4.1	4.1	3.9	3.8	3.7	3.7	3.6	3.6	3.5	3.5	3.5	3.4	3.4	4.4	3.9	3.6	3.5
Nonfarm Payrolls (chg in 1000s)	425	662	655	651	569	550	510	475	450	440	440	440	420	400	2,188	2,425	1,875	1,700
S&P 500*	2,467	2,603	2,733	2,703	2,850	2,805	2,848	2,891	2,935	2,980	3,026	3,072	3,119	3,167	2,449	2,773	2,914	3,096
Short-Term Interest Rates*																		
Fed Funds Target (%)	1.16	1.20	1.44	1.74	1.92	2.20	2.41	2.68	2.91	3.13	3.13	3.13	3.13	3.13	1.00	1.83	2.78	3.13
3-Month LIBOR (%)	1.31	1.46	1.93	2.34	2.34	2.54	2.74	3.01	3.23	3.44	3.43	3.43	3.42	3.41	1.26	2.29	3.10	3.42
7-Day SIFMA (%)	0.82	1.05	1.21	1.46	1.35	1.75	1.90	2.00	2.15	2.30	2.30	2.35	2.30	2.30	0.85	1.44	2.09	2.31
Treasury Interest Rates*																		
2-Year Treasury (%)	1.36	1.69	2.15	2.47	2.66	2.91	3.04	3.23	3.38	3.52	3.57	3.62	3.61	3.63	1.39	2.55	3.29	3.61
3-Year Treasury (%)	1.51	1.81	2.30	2.61	2.74	2.98	3.08	3.26	3.39	3.53	2.58	3.65	3.64	3.66	1.57	2.66	3.32	3.38
5-Year Treasury (%)	1.81	2.06	2.53	2.77	2.81	3.04	3.15	3.31	3.42	3.54	3.61	3.69	3.68	3.71	1.91	2.79	3.36	3.67
7-Year Treasury (%)	2.06	2.25	2.68	2.88	2.88	3.12	3.20	3.35	3.45	3.56	3.64	3,73	3.72	3.76	2.16	2.89	3.39	3.71
10-Year Treasury (%)	2.24	2.37	2.76	2.92	2.92	3.19	3.27	3.41	3.50	3.59	3.68	3.78	3.77	3.81	2.33	2.95	3.44	3.76
30-Year Treasury (%)	2.82	2.82	3.03	3.09	3.06	3.39	3.46	3.59	3.68	3.76	3.84	3.93	3.92	3.96	2.89	3.14	3.62	3.91
Municipal Interest Rates*																		
30-Year MMD (%)	2.75	2.71	2.91	2.99	3.04	3.41	3.42	3.47	3.49	3.49	3.55	3.60	3.62	3.68	2.85	3.09	3.47	3.61
Muni Yield Curve Slope (%)	1.93	1.58	1.51	1.36	1.47	1.47	1.40	1.35	1.22	1.07	1.13	1.13	1.20	1.26	1.93	1.45	1.26	1.18

P: Preliminary Data
* 3-month average
Source: Loop Capital Markets' Analytical Services Division and Short-Term Desk. Black Text: Actual Blue Text: Forecast as of November 9, 2018

Market Review *Data Diffusion | ADS Index*

Figure 2 **Data Diffusion Index vs. 10-Yr Treasury Yield**

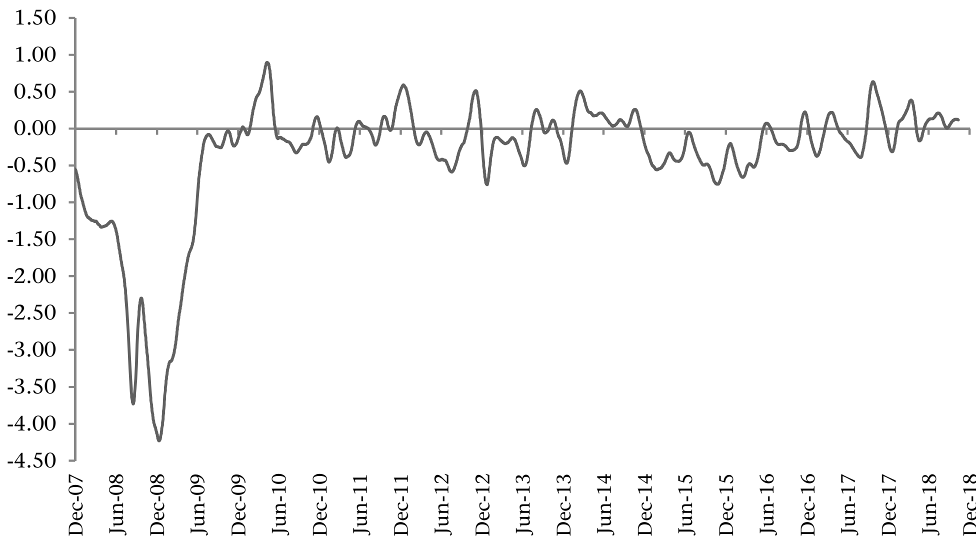


Sources: FRED, Loop Capital Markets

As economic releases continue to come in stronger than expected, Treasury yields rose.

Data Diffusion Index: We calculate the Data Diffusion Index based on 30 different weekly, monthly and quarterly economic releases, such as construction spending, capacity utilization and new home sales. If the number came above the consensus estimate (which is positive for economic growth) the index would increase by one, and vice versa. The Treasury yield is expected to track the data diffusion index (the yields would increase as the economy exceeds expectations and vice versa).

Figure 3 **Aruoba-Diebold-Scotti Business Conditions Index (12/31/2007 — 11/10/2018)**



Source: Federal Reserve Bank of Philadelphia

The index is close to trend growth of about 2%, represented by the flat line.

Reading the ADS Index: The index is designed to track real business conditions at high frequency. Its underlying (seasonally adjusted) economic indicators (weekly initial jobless claims; monthly payroll employment, industrial production, personal income less transfer payments, manufacturing and trade sales; and quarterly real GDP) blend high and low-frequency information and stock and flow data.

Midterm Election Analysis

By Ivan Gulich | Senior Vice President

Election Results

The most important consequence of midterm elections is Democrat takeover of the House. While 7 races have not been called yet, we estimate that Democrats gained about 37 House seats, exceeding the average 29-seat gain for the opposition party in the first midterm elections after inauguration of last 5 presidents. The Republicans managed to expand their Senate majority by two seats, subject to the Florida recount and Mississippi runoff election. This was a favorable Senate election cycle for the GOP, with Democrats and Independents who caucus with Democrats defending 26 seats, some in deep-red states, compared to 9 seats held by the GOP.

Republicans experienced significant gubernatorial losses (net loss of 6 seats, assuming they prevail in Georgia) amid very unfavorable electoral climate (defending 26 GOP seats compared to 9 seats held by Democrats and 1 by an independent), but managed to retain the overall edge in governorships nationwide (27 Republican vs. 23 Democrat).

As is typically the case, midterm elections were the voters' verdict on President's first two years in office. Almost two-thirds of the voters said Trump was a reason for their vote.[1] While economic environment is favorable for Republicans, Trump's divisive presidency has motivated Democrat turnout and delivered gains for their party. To prevent electoral wipeout, Trump tirelessly campaigned across the nation in an effort to excite Republicans by emphasizing wedge issues. This strategy was reflected in electoral outcomes. In close races for suburban seats, where GOP voters are generally moderate, House Republicans experienced steep losses. But Trump's rural base, which votes Republican by lopsided margins, delivered the gains that allowed GOP to flip senatorial seats in states that lean Republican (North Dakota, Indiana and Missouri), or retain seats that Republicans were at risk of losing (Tennessee).

As a result of this dynamic, Blue Dog House Democrats are back, increasing their ranks by about 25% in the 116th session of Congress.[2] On the other hand the GOP minority, having lost most of their moderate members, will be almost uniformly conservative.

The two parties differ in another important aspect. After GOP takeover of Congress in 1994, former House Speaker Gingrich instituted 6-year term limits for powerful chairmen of House committees. GOP committee chairmen often retire after their chairmanships end, leaving vulnerable open seats, as was the case in this election. The upside of term limits is higher turnover in GOP conference, which allows relatively young people such as outgoing House Speaker Paul Ryan and Majority Leader Kevin McCarthy to set the agenda.

Democrats, on the other hand, follow strict seniority. Some chairmanships will be held by members who are in their eighties. Top three House Democrats, who are expected to be in leadership positions in the new Congress as well, will be on average 79 years old in January. On the other hand, some of the newly elected House members are young, dynamic Democrats who have different styles and priorities from the old guard. Unlike the GOP conference, there will be much more ideological division among House Democrats, which will be reflected in their legislative agenda.

An insight into the new majority's legislative approach is their plan to bring back earmarks, a process of setting aside money for specific projects in lawmakers' districts, a practice House Republicans banned 8 years ago. Including earmarks in appropriation bills enjoys support of Nancy Pelosi and Steny Hoyer, who will likely become the next House Speaker and Majority Leader, respectively. Some Senate Republicans are on board with reinstating earmarks, but with a caveat. Senate Appropriations Chairman Richard Shelby proposes renaming the practice, because the word earmark has become pejorative.[3]

Election Impact on Legislative Agenda of 116th Congress

Due to political polarization, in recent years it was challenging to pass important legislation even when both chambers and the presidency were in the hands of one party. A good example is Affordable Care Act (ACA), which was difficult to pass even though Democrats held wide margins in both chambers in 2009-2010. In the current session of Congress, Republicans resorted to budget reconciliation to pass tax cuts as uniform Democrat opposition prevented passage through regular order. Senate filibuster can be used to block legislation, but not confirmation of judges or Cabinet officials. Democrats will be able to thwart GOP legislative initiatives, while Republicans will be busy filling federal courts with GOP appointees.

[1] Peoples, Colvin: Democrats Seize House Control, But Trump's GOP Holds Senate, Associated Press, November 7, 2018

[2] Lindsey McPherson: House Democratic Factions All See Gains After Midterms, Roll Call, November 13, 2018

[3] Fitzpatrick: Democrats' Revival of Earmarks Would be a Win for Appropriators, Bloomberg, November 14, 2018

While divided Congress offers an opportunity to pass pieces of legislation that enjoy bipartisan support, gridlock seems a more likely outcome for the following reasons:

1. Political polarization

Toxic political environment makes is very difficult to successfully negotiate a bipartisan solution as factions on the opposite ends of ideological spectrum, intent on defeating each other, continue to pull the two parties apart, weakening the political center.

2. Congressional oversight

Trump's divisive style has not endeared him to the upcoming chairs of powerful House committees, some of whom the President has repeatedly belittled publically. We can expect a slew of investigations of the Administration that may not be limited to President's time in office. Trump's business dealings and tax returns from before he announced his candidacy will likely be subjects of Congressional hearings, as Mueller investigation continues. House committee chairs could force Administration officials to testify and provide documents on a wide range of issues. In addition to exciting Democrat base, House investigations will force the Administration to prioritize fighting subpoenas and politically motivated lawsuits over pursuing legislative objectives.

3. 2020 Presidential elections

Jockeying for Democratic presidential nomination will begin shortly after the new Congress takes over in January. Presidential politics will gradually preoccupy the parties to the detriment of other considerations. Senators who have signaled their intent to run for Democrat nomination, ideologically firmly on the left end of the political spectrum, will deepen polarization in the Senate. Confirmation fights will further radicalize political parties, especially if there is a Supreme Court opening.

Will House Democrats agree under these circumstances to pass legislation that enjoys bipartisan support but also allows Trump to tout his leadership and deal-making skills? Will the danger of being branded a "do-nothing Congress" motivate House Democrats to work with Republicans? The jury is out on these issues.

Impact on the Federal Budget

Electoral results do not bode well for fiscal responsibility.

House GOP conference is dominated by fiscal hawks that used to shut down federal government in failed efforts to constrain spending over the objections of more moderate GOP leaders, the dynamic which finally led to the ouster of former Speaker John Boehner. The upcoming Democrat majority will be much less restrained in terms of funding various priorities by their constituencies.

In the Senate, GOP mavericks and fiscal hawks such as Jeff Flake, Bob Corker and late John McCain were replaced in this election cycle with senators who owe their allegiance to Trump, who pushed them over the top by relentlessly campaigning on their behalf. Even Ted Cruz, the most radical Senate conservative, won his difficult re-election with help from his one-time foe.

However, President Trump is not a fiscal hawk, but a deal maker. Just like Democrats, Trump wants to deliver to his base in a run-up to 2020 presidential election. Devoted Trump voters are not affluent suburbanites, but people who live from paycheck to paycheck and welcome government assistance.

With Democrats and the White House inclined to ramp-up spending, federal budget deficits will most likely widen in FY'20 and FY'21 even more than would have been the case without the House takeover. Federal budget deficit in FY'18 reached $779 billion or about 4% of GDP.[4] The deficit is expected to top $1 trillion in FY'19.

Infrastructure

Spending on roads, bridges and other infrastructure is seen as one of the few areas where incoming House Democrat majority may find common ground with the Trump Administration. Nancy Pelosi stated on October 22 that she wanted to "build the infrastructure of America from sea to shining sea. Not only surface transportation but broadband and water systems."[5] President Trump, a passionate real estate developer, shares those sentiments. His election fueled optimism that the U.S. would embark on a major infrastructure spending spree.

However, the efforts to pass infrastructure legislation stalled in 2017 as GOP focused on cutting taxes and repealing Affordable Care Act amid wrangling over funding for the building program. The President's infrastructure plan, which relied on private funding, did not seem viable. Rising federal deficits will make it more difficult to fund the infrastructure spending package.

Republicans favor plans that don't require tax increases, including private sector involvement, while Democrats prefer the tax-and-spend approach. For example, Progressive Caucus called for taxing oil to pay for $2 trillion infrastructure spending package.[6]

[4] Lydia DePillis: US deficit rises 17% to the highest level since 2012, CNN Business, October 16, 2018.
[5] Niquette, Levin: Democrats Eye Push for Infrastructure Plan If They Retake House, Bloomberg, October 29, 2018
[6] Kyle Glazier: Infrastructure outlook brightens with split House, Senate, The Bond Buyer, November 6, 2018

There is speculation that the spending package could include a possible return of Build America Bonds under a different name to incentivize infrastructure spending at the state and local levels.

Healthcare

Republicans failed to repeal and replace ACA in 2017. In the meantime the Act's provisions have become popular even in deep-red states such as Idaho, Nebraska and Utah where voters approved Medicaid expansion in referendums. It is estimated that these states have about 300,000 uninsured adults who could benefit for the program.[7] Democrats also won governorships in Kansas and Maine, two states where legislatures voted to expand Medicaid, but where expansions were blocked by GOP governors. Predictions that Obamacare would become more popular with the passage of time have proven correct. With Democrats taking over the House and President's voter base reaping healthcare benefits, the outlook for repealing controversial legislation is quickly fading. Entitlements are notoriously difficult to eliminate and ACA is no exception.

Nevertheless, since Obamacare is an imperfect legislation that requires continued regulatory and legislative interventions to remain viable, Congress will have to address its shortcomings in the months and years ahead.

An example of bipartisan efforts to address a healthcare problem is sweeping legislation to fight the opioid epidemic which was signed into law by President Trump on October 24.[8] Proposals to lower prescription drug prices could attract support from both sides of the aisle. Trump proposed allowing the government to negotiate drug prices for Medicare and import drugs from abroad during his campaign.[9]

The pharmaceutical lobby has been unsuccessful so far in their efforts to reduce pharmaceutical firms' contributions to close the Medicare Part D coverage gap, known as the doughnut hole, by $4 billion.

Immigration

Immigration reform ranks high on House Democrat's legislative agenda. Immigration issues animate the progressives, whose efforts propelled a high-profile immigrant advocate to Congress in this election cycle. There is lingering resentment among immigration activists that party leaders, including President Obama, chose not to pass immigration reform in 2009-10 and instead prioritized Obamacare. Thanks to Democratic dominance in both chambers and substantial support among GOP senators, the immigration reform could have passed at that time.

It is very likely that Democrat-run House will pass immigrant-friendly legislation in the next session of Congress. However, the outlook for bipartisan immigration reform remains poor because the two parties have mutually exclusive objectives—Democrats want to increase overall immigration, while Republicans want to restrict it. Trump's priorities, including full funding for the border wall and lower limits on legal immigration, are out of reach.

Legislative proposals that would resolve immigration status of a sympathetic constituency such as Deferred Action for Childhood Arrivals (DACA) recipients would have to be paired with restrictive provisions demanded by Republicans, which is something Democrats refuse to do. GOP-friendly businesses lobbyists who support efforts to increase supply of cheap labor have lost influence in the Trump Administration. There was a bipartisan coalition of legislators pushing for an immigration overhaul in 2007 and 2013. However, with GOP moderates leaving Congress and Democrats moving to the left, there will be little common ground between the two parties on immigration issues in the 116th Congress.

As a result, it is unlikely that substantive immigration legislation will clear both chambers and Trump's desk in the run-up to presidential election.

Lame-Duck Session

Congressional priority is to fund federal government past December 7, when current continuing resolution expires. While Congress managed to pass 5 appropriation bills before the start of FY'19, legislators will have to complete 7 additional bills that fund numerous federal agencies before the deadline.[10] The most contentious is appropriation for the Department of Homeland Security, which includes border wall funding. The negotiations are complicated by requests to include various riders related to policies such as DACA program, sending troops to the border, etc. in the appropriation bill.

Shutting down government agencies before Christmas is not an appealing option for either party. Legislators could decide to pass another continuing resolution and kick the problem to new Congress. House Democrats would probably prefer to have a clean slate as they reclaim the gavel in order to hit the ground running pursuing their legislative priorities, instead of dealing with last year's problems left over by the Republican majority. The

[7] Phil Galewitz: Midterm election boosts Medicaid expansion, but challenges remain, Kaiser Health News, November 9, 2018

[8] Scott Horsley: Trump Signs Sweeping New Legislation To Address Opioid Epidemic, NPR, October 24, 2018

[9] Robert Pear: How the Trump Administration Is Browbeating Big Pharma on Drug Prices, The New York Times, July 23, 2018

[10] Ognanovich, Fitzpatrick: Congress Returns With Options to Avoid Government Shutdown, Bloomberg, November 13, 2018

negotiators will probably reach some kind of a compromise that will allow both sides to claim victory and leave town for the holidays.

There is some talk about renewing temporary tax breaks (extenders) during the lame-duck session. Since potential fixes to mostly obscure provisions of the tax code can wait until 2019, Democrats may decide to deal with them next year, when they will have a greater say in terms of what ends up in tax legislation.[11]

Other Issues

Rank-and-file Democrats are somewhat supportive of Trump's protectionist agenda. Considering that NAFTA has been amicably renegotiated, it is very likely that the new United States-Mexico-Canada Agreement (USMCA) will be ratified in early 2019.

Congress has suspended the debt ceiling until March 2, at which point the ceiling will be reinstated at the debt level achieved by that time, estimated at $22 trillion. However, implementation of "extraordinary measures" will delay the need to increase the debt ceiling until mid-summer.[12] With intransigent House Republicans out of power, raising the debt ceiling this time around may not involve as much drama as it did in the past.

Final Thoughts

The upcoming session of Congress is unlikely to be very productive. In current hyper-partisan environment the news cycles will probably be dominated by various Congressional investigations, subpoenas and legal maneuvering. House Democrats will likely pass sweeping progressive bills that have no chance of becoming law in an effort to placate their base. Bipartisan efforts to enact substantive legislation would have to commence early next year in order to have a realistic chance of being successful. As the race for presidential nomination heats up, major initiatives will inevitably encounter gridlock.

In the meantime, the White House will exert influence through executive orders and regulation. Trump could ramp up efforts to renegotiate trade deals and turn his attention to foreign policy initiatives, while GOP-run Senate works to confirm his appointees.

[11] Versprille, Basu: Extenders, Tax Overhaul Fixes in Lame-Duck Bill Mix, Bloomberg, November 14, 2018
[12] Niv Elis: Dem House to face debt limit hike in summer 2019, The Hill, November 8, 2018

Election Ballot Measure Results

By Rachel Barkley | Vice President

While elections at the state and federal level have garnered the majority of the headlines, voters also decided on state and local tax and bond measures in the recent election that may have a more direct impact on tax and debt levels. Across the country, governments went to voters seeking additional revenue and bonding authority for transportation infrastructure and education funding, while several areas also sought to address water management issues. Here we look at three states, California, Colorado, and Texas. California and Texas remain central to the bond market as the largest issuing states, while Colorado has increased its debt issuance in recent years as it wrestles with an increasing population.[13]

California

California voters weighed in on 547 local ballot measures in the November election, along with 11 statewide propositions.

Statewide

Statewide initiatives focused on transportation funding and water projects, which have been ongoing needs for the state in recent years.

In a win for transportation funding, voters rejected Proposition 6, which called for a repeal of 2017's fuel tax and vehicle fee increases. The current tax generates roughly $5B annually and will continue to be used to reduce the state's estimated $130B backlog of road and bridge repairs, along with improving mass transit.[14] Opponents had called for the tax to be rescinded due to overall high tax rates in the state.

Voters also approved the issuance of $1.5B of bonds to fund the construction of children's hospitals and $2B of bonds for homelessness prevention housing. The latter will be funded from the state 1% millionaire's tax.

However, Proposition 3, which sought approval for the state to issue $8.9B of bonds for water-related infrastructure and environmental projects, failed with approximately 52% of voters voting against it.[15] Voters had previously approved multiple other water bond propositions, including $4B of debt issuance for water and environmental needs in June, as the state continues to experience periodic drought conditions and long-term water supply issues.

Local Governments

Slightly less than half the total local bond and revenue measures on the ballot were for cities (200), while 125 were for schools, 32 for special districts and 28 for counties. City general tax measures fared remarkably well, with 90% passing, while city special tax measures passed at a rate of 56%. Both are above historical pass rate of 73% and 48%.[16] Special tax measures require a two-thirds approval rate to pass compared to a 50% rate for general tax measures, contributing to the variance in approval levels.

A record 79 cities and counties voted on local cannabis taxes and overwhelmingly passed with just six being rejected. There was also a new record high of hotel tax measures. Of the 40 proposals, 38 passed with San Clemente and Atwater being the exceptions. Palo Alto will now have the highest hotel occupancy tax rate in the state at 15.5% having increased their rate by 1.5%.

Local government general obligation bond measures were not so enthusiastically embraced by voters. Eleven bond measures were put forth totaling $2.4B. This is comparable to the 2016 election when 12 G.O. bond measures were on the ballot. While approval rates on two measures is close, with ultimate passage still uncertain, it currently looks like four measures passed. Among them, San Jose and San Francisco approved $650MM and $425MM respectively for earthquake facilities and infrastructure needs. Only one of the four proposed bond measures to fund affordable housing passed, with Berkley voters approving $135MM. All measures for parks and recreation bonds failed to pass.

Education

In total, voters weighed in on $15.7B in school construction bonds on 112 ballot measures, with voters approving $14.8B of authorization. This is comparable to the November 2012 and 2014 elections when school bond measures totaled $14B and $12B, respectively, but down considerably from the 2016 election when 184 measures totaling $25B were on the ballot.

School district bond authorizations in California typically require a 55% approval rate to pass, as allowed under Proposition 39. However, Proposition 39 general obligation bonds are limited in the

[13] Bond Buyer.
[14] California voter approval of gas tax increase gives hope to other groups that want to fund state priorities. Los Angeles Times. November 9, 2018.
[15] Ballotpedia.
[16] CaliforniaCityFinance.org

maximum annual tax rate allowed to be levied for the payment of debt service, which ranges from $25 per $100,000 of assessed value for community college districts to $60 per $100,000 of assessed value for unified school districts. Alternatively, districts can seek authorization under Proposition 46, which requires a two-thirds approval rate, but resulting general obligation bonds are not limited as to the rate or amount allowed to be levied for debt service. This year, 107 measures required a 55% pass rate while five measures required the higher 66% approval.

As is typical, Proposition 39 measures had a higher approval rate of 82%, while only two of the five Proposition 46 measures passed. San Diego Unified School District was by far the largest school bond proposition as it requested $3.6B in authorization. The measure passed with 61% approval. Residents will see their property tax bills increase by $60 per $100,000 of assessed valuation for the next 39 years.[17] Revenues will be used to lower lead levels in school drinking water, repair aged schools, improve classroom technology, and provide new athletic and STEAM facilities. Charter schools in the district will receive $588MM of the revenues.

Colorado

The state's rapid population increase in recent years has put a strain on state and local capital budgets as they work to build schools, roads and other needs to meet increasing demand. At the same time, low teacher pay led to a two and a half week teacher strike in the state this spring. Potential funding solutions to both issues were brought to voters this month, with statewide tax increases for both education and transportation infrastructure being voted down. Voters in some local areas did approve bond measures to construct new schools and property millage overrides to fund various local needs.

Education

Colorado voters vetoed Amendment 73, which would have moved the state residents from a flat residential income tax, currently set at 4.63%, to a graduated tax system. Tax rates would have remained unchanged for those making up to $150,000 annually with a top rate of 8.25% for those making more than $500,000 a year. The corporate tax rate would have been increased from its current rate of 4.63% to 6%. The measure was estimated to have generated roughly $1.6B annually.

On the local level, eight school bond measures were put to voters totaling $1.5B. Five of these were passed resulting in $572MM of future borrowing ability. Residents of Jefferson County, located just west of Denver, did not pass a $567MM bond issue but did vote for a $33MM mil levy override, which will be used for teacher salaries.

Across the state, 15 mill levy overrides were passed, including the previously mentioned override in Jefferson County and a $40MM override in Douglas County.

Transportation

Proposition 110, which called for increasing the state sales and use tax rate by 0.62% for a period of 20 years from its current rate of 2.9%, was rejected. Revenue raised from the proposed tax increase would have been designated for transportation. Voters also failed to pass Proposition 109 which would have allowed the state to borrow up to $3.5B in 2019.

Texas

There were 97 local bond measures across Texas as part of the November election. Similar to past elections, measures were most common for school districts, which brought forward 47 measures, followed by cities with 44 proposals, counties (5) and special districts.

Education

Voters approved $5.5B of the $5.7B proposed school district bond referenda.

Fort Bend ISD tops the list with a $992.6MM bond authorization, followed by Frisco ISD ($695MM) and Round Rock ISD ($508.4MM). Rejected proposals tended to feature athletic facilities, such as swim centers. San Angelo ISD voters defeated two measures, including a $118.5MM proposal for school renovations and $34MM for fine arts and athletics.

The one special district with a bond referendum this year also was related to education. The College of the Mainland Community College District in Galveston County brought forth a $162.5MM bond measure for new buildings, which was approved.

Local

Voters approved all city and county measures this election. In total, $1.6B was approved for cities and $817MM was approved for counties.

The city of Austin led the way with seven bond measures totaling $925MM. The largest programs funded through related issuances will be affordable housing ($250MM), flood control ($184MM), transportation ($160MM) and parks ($149MM).

[17] San Diego Unified is on track for voter approval of $3.5 billion bond measure as ballots show public support. San Diego Tribune. November 7, 2018.

Other notable local bond approvals include Collin County, which approved $740MM for roads and $10MM for parks, and the city of Arlington, which passed a total of $190MM in issuance with the majority concentrated in roads.

Final Thoughts

California, Colorado, and Texas face many of the same long-term pressures, including providing sufficient infrastructure at all levels of government to meet the states' increasing populations. Debt issuance will likely play a key role in this service provision. Analyzing bond authorization levels and approval trends can provide useful data for looking at not just an area's future debt burden, but also their dedication and ability to fund necessary investment to maintain their vibrant economies. This should be balanced with increasing debt levels and an entity's ability to afford increased debt service payments.

Airline Pressure Ahead—Domino Effect for Airports and Investors

By Maura Murrihy, CFA | Vice President

The sustained economic recovery has lifted the profitability of the highly cyclical American airline industry for several years due to four primary drivers: (1) sustained lower fuel costs; (2) manageable labor costs in a low inflationary environment; (3) low capital costs and (4) improved airline passenger growth.

US airlines now face reversal of these four trends with negative implications for certain airports and municipalities. The recent jet fuel cost rise is likely to be persistent. Ongoing labor cost negotiations for increasingly scarce pilots will result in inflationary expense pressures. In a rising interest rate environment, higher capital costs will pressure margins due to capacity addition needs. Longer term, passenger growth is shifting away from North America toward Asia/Pacific countries.

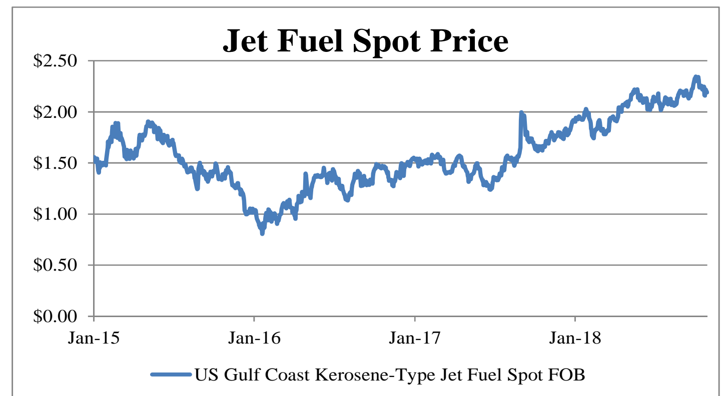
2018: Ending on a More Cautious Note

Key industry metrics in the 1H'18 were strong, outpacing US GDP growth. US enplanements grew 5% during the first half of 2018 compared to 2.6% for 1H'17. Domestic and international enplanements rose in line with one another (4.9% and 5.3%, respectively).[18] Mid-sized and secondary hub traffic was particularly strong as well as international hub activity. Load factors for the five major US airlines (American, Delta, JetBlue, Southwest and United) were relatively consistent within an 82-85% range. So far, premium cabin yields were steadier than economy yields and along with higher passenger fares helped offset the pressure from rising fuel costs. At least through the second quarter, debt rating trends for the airline industry were stable to positive overall.

In June, the International Air Transport Association (IATA) reduced its full year 2018 forecast for industry profits by 12% compared to its forecast in December 2017, blaming rising fuel prices, labor costs and rising interest rates. In 3Q'18, higher passenger volumes and slight fare and fee hikes offset these negatives, but the outlook is less sanguine moving forward.

2019-2020 Challenges

Fuel Prices Airline input costs are under pressure from rising oil and jet fuel prices, up about 40% over the past year.[19] By 11/5/18, jet fuel had risen 28% from twelve months prior, and is up 57% and 53% on a 2- and 3-year basis, respectively. We note that oil prices have retreated in the past few weeks with West Texas Intermediate (WTI) crude down 20% in early November on concerns of a global supply imbalance. Loop Capital's economic forecast currently projects WTI prices to average $74 in 4Q'18 and $79.50 in 2019. While premium passenger yields have risen offsetting the airlines industry's recent fuel cost rise, they can only go so far in continuing to provide a cushion for future jet fuel hikes.



Source: U.S. Energy Information Administration

Labor Markets Over the next two years, wage pressures are likely to surface reflecting the confluence of a tighter labor market and union contract renewals. Pilot shortages are becoming common due to retirements, lack of new entrants and more stringent training qualifications for recruits. All five major US airlines face pilot wage negotiations in a steady stream that will be visible between now and 2020. Pilot wages may rise as much as 5%, well above the rate of inflation.[20] So far, airlines are responding by using larger aircraft to offset wage hikes, but that remedy only will have a transitory effect.

Pilot Labor Pressure Ahead?

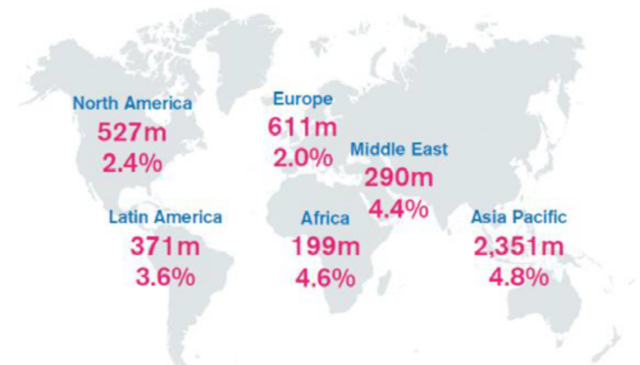
	Possible Contract Negotiation
United	Jan 2019
Delta	Dec 2019
JetBlue	2019/2020
Southwest	Sep 2020
American	2020

Source: Bloomberg

[18] "US Transportation Trends Executive Summary." Fitch Ratings. October 18, 2018.
[19] U.S. Energy Information Administration.
[20] "Airline Wages Surpass Inflation on 2019 Pilot Contract." Bloomberg. September 12, 2018.

Capital Costs Going forward, capital costs will be a challenge as interest rates rise, given the amount of airline debt coming due over the next few years and the reduction in Fed accommodation. Scarce airport capacity has become increasingly severe, causing revenue constraints for airports.[21][22] Moody's expects leverage at US airports to return to peak levels after addition of $12 billion and an estimated $7 billion of debt in 2017 and 2018, respectively. To support capital programs, it projected that costs incurred by airlines at the top 25 airports will rise by 34% in the five years ended 2021.[23]

> ***"Major hubs are full to the brim and the slot pool is empty…Cash-strapped, slow-moving governments are hard pushed to remedy the situation."***
> ***—IATA, August 2018***



Source: Oxford Economics and IATA

Secular Volume Shifting Eastward

Global air passenger growth is shifting eastward to the detriment of North America and Europe. Oxford Economics' forecasting model points to global air passenger growth of 3.5% over the next 20 years in a range of 2.4% (worst case) to 5.5% (best case). In its baseline case, North American growth will average 2.4%, lagging the rest of the globe by one third. North America is still forecast to exceed Europe's 2.0% due to aging demographics.[24]

Both regions will lag Asia Pacific, whose passenger traffic will grow more than twice that of the developed world. China is likely to overtake the US' #1 global market share by the mid-202os as the balance of traffic shifts eastward.

The most likely case does not factor in the potential impacts of further trade tensions spilling into tourism, which skews to the risk to the downside. In a more bearish scenario, global spending on airlines could decline as much as $50 billion. According to Oxford, North America and Europe could see declines in passenger movement as soon as 2020 (estimated at -1% and -2%, respectively).[25]

This forecast has significant implications for international and premium passenger profitability. In rough terms, premium travel represents 5% of traffic but 25% of industry revenue.

Ancillary Revenue Growth Cap

It is reasonable to expect that there will be a ceiling on the level of fee growth given the brewing political backlash airline fees are causing. The public's growing frustration with extra fees (for baggage, seat assignment and flight changes) was recently put to the test in late September when Congress voted last minute to allow the airline industry to continue charging it estimated annual run rate of $4.7 billion of ancillary fees in 2018, up more than tenfold from when they were first introduced in 2007 and at a record level. (The hotly contested vote went into the wee hours and was finalized near 3am.)

Had it not passed, the US Department of Transportation could have determined whether such fees were "unreasonable" relative to the level of service provided.[26] Proponents of the defeated provision continue to lobby for passenger protections including caps on alternate revenue sources.

Implications for Investors

Looking forward, the outlook for airlines looks far less bullish, meaning airports face headwinds for the first time in several years. A squeeze in airline operating margins has major implications for airport enplanements and rental revenue, as well as the local economies dependent on airports for trade and commerce. Enplanements remain a key driver for airports as they drive airport revenues and impact capital needs. Airports that have to renegotiate airline user agreements (AUA) will be at a disadvantage when negotiating with airlines experiencing revenue and operating margin squeezes, which may look to less generous arrangements to cut costs.

[21] "Airport capacity: Striking the right deal." IATA. August 20, 2018.
[22] Dossier: On everyone's interest." IATA. August 20, 2018
[23] Earl Heffintrayer and Jonathan Root, CFA. "Expansion Plans Will Pressure Credit Profiles of Airports, but Less Impact on Airlines." Moody's Investors Service. June 13, 2017.
[24] Oxford Economics conference call. October 31, 2018.
[25] Ibid.

[26] Ashley Halsey III. "Congress allows airlines to continue passenger fees that cost $4.6 billion last year." The Washington Post. September 22, 2018.

There is not much appetite at the Federal level to increasing the passenger facility charge (PFC) which generally funds capital projects. We are seeing a decent number of airports unveiling capital programs to renovate and bring their facilities into the 21st Century. If airline revenue growth begins to lag, airports' capacity to borrow could be impeded or investors could become wary of funding these programs if enplanements show negative trends.

Non-aeronautical revenues, which have grown in recent years to account for roughly half of total revenues[27], are directly impacted by enplanements, as increased passenger traffic has historically correlated with gains in revenues from concessions, parking and rental cars.

At this point, ratings agencies' opinions of the industry remain positive or stable. Moody's and S&P maintain stable ratings on the "big Five" and Fitch maintains positive indications on two of the five (JetBlue and Southwest) with stable indications on the other three. Moody's and Fitch have expressed positive viewpoints on the airport industry on the basis of positive enplanement and freight trends.[28] [29] These opinions may not hold up if airline fundamentals begin to deteriorate as we began to see in the third quarter of 2018.

Below we list of airport muni bonds sold since 2010 that are secured solely by the credit of an airline.

Airport Municipal Bonds Secured Solely by Airline Credit*			
Issuer	Airline	Maturity	Amt (MM)
NJ Economic Dev	Continental	9/15/2027	101
Houston City-TX	United	7/15/2028	137
PA Econ Dev	US Air	5/1/2029	30
Houston City-TX	United	7/1/2029	309
Port of Seattle	Delta	4/1/2030	66
NY Transportation	American	8/1/2031	844
Denver City-Co	United	10/1/2032	251
Tulsa Muni Airport	American	6/1/2035	104
NY Transportation	Delta	1/1/2036	1383
Greater Orlando	JetBlue	11/15/2036	42
Houston City-TX	Continental	7/15/2038	113
* Issued since 2010.			Source: IPREO

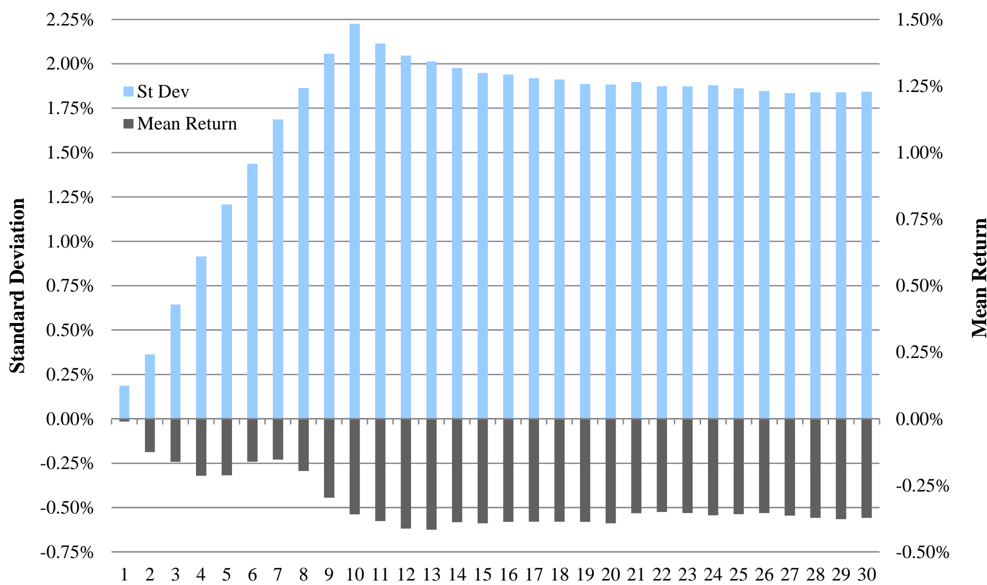
[27] Federal Aviation Authority. Airport Financial Reporting Program.

[28] "2018 outlook positive due to expectation of strong enplanement growth." Moody's Investors Service. November 27, 2017.

[29] "U.S. Transportation Trends." Fitch Ratings. October 18, 2018.

Market Review *Historical Monthly Bond Price Changes*

Figure 4 **Muni Benchmark Callable Scale — Average Bond Price Changes (November)**



Sources: Loop Capital Markets, TM3

We show historical bond price changes for each point on the muni benchmark callable curve during the month of November for the last 17 years.

The returns in November were negative 1/2 of the time, with bond prices declining, on average, 0.31% across the curve.

Figure 5 **Muni Benchmark Callable Scale — Average Bond Price Changes (November)**

AAA MMD - MONTHLY PRICE CHANGE

Maturity	5	10	15	20	25	30
Nov-01	-1.18%	-2.47%	-1.61%	-0.99%	-0.92%	-0.99%
Nov-02	-0.40%	-1.79%	-1.23%	-0.61%	-0.61%	-0.69%
Nov-03	0.04%	1.04%	0.79%	0.87%	0.79%	0.79%
Nov-04	-1.06%	-2.05%	-2.04%	-1.41%	-1.25%	-1.25%
Nov-05	-0.04%	0.40%	0.55%	0.55%	0.47%	0.31%
Nov-06	0.09%	0.64%	0.80%	1.04%	1.20%	1.28%
Nov-07	0.94%	1.52%	1.03%	0.40%	0.55%	0.63%
Nov-08	2.06%	2.32%	0.39%	-0.47%	-0.31%	-0.15%
Nov-09	1.58%	2.04%	1.29%	0.72%	0.16%	-0.39%
Nov-10	-0.72%	-2.24%	-3.15%	-3.60%	-3.50%	-3.27%
Nov-11	0.63%	1.39%	0.24%	-0.16%	-0.63%	-0.71%
Nov-12	0.14%	2.08%	2.82%	2.81%	2.88%	2.87%
Nov-13	-0.45%	-1.69%	-0.80%	-0.48%	-0.55%	-0.47%
Nov-14	-0.14%	-0.08%	-0.32%	-0.32%	0.00%	0.00%
Nov-15	-0.40%	0.16%	0.65%	0.81%	0.89%	0.89%
Nov-16	-3.19%	-6.24%	-5.59%	-5.57%	-5.49%	-5.49%
Nov-17	-1.52%	-1.14%	-0.49%	-0.24%	0.24%	0.32%
Mean	-0.21%	-0.36%	-0.39%	-0.39%	-0.36%	-0.37%
St Dev	1.21%	2.22%	1.95%	1.88%	1.86%	1.84%

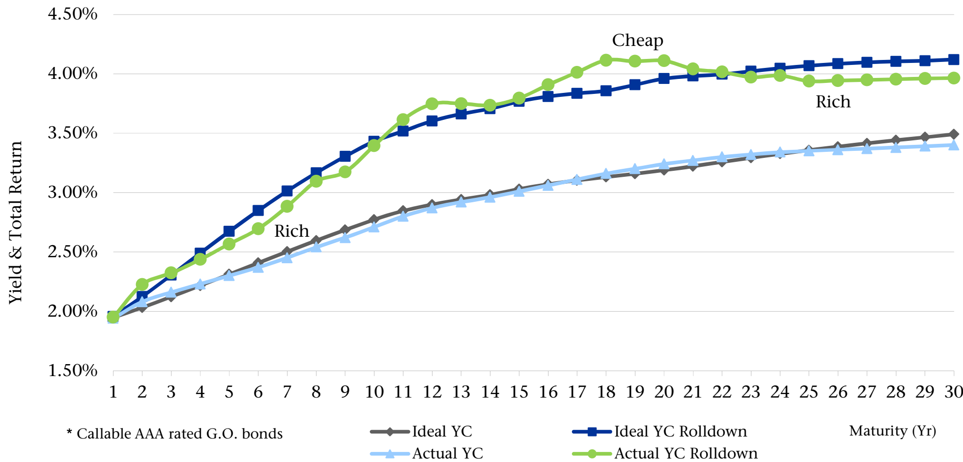
Sources: Loop Capital Markets, TM3

The averages were skewed by a surge in muni yields in November of 2016. The bonds posted their worst month since 2009 as Trump's unexpected victory boosted inflation expectations.

The 9 to 15-year range was most volatile, with standard deviation of monthly bond price changes of 2.05%.

Market Review *The Yield Curve*

Figure 6 **1-Year Forward Roll-down—Muni Benchmark Curve* (November 13, 2018)**

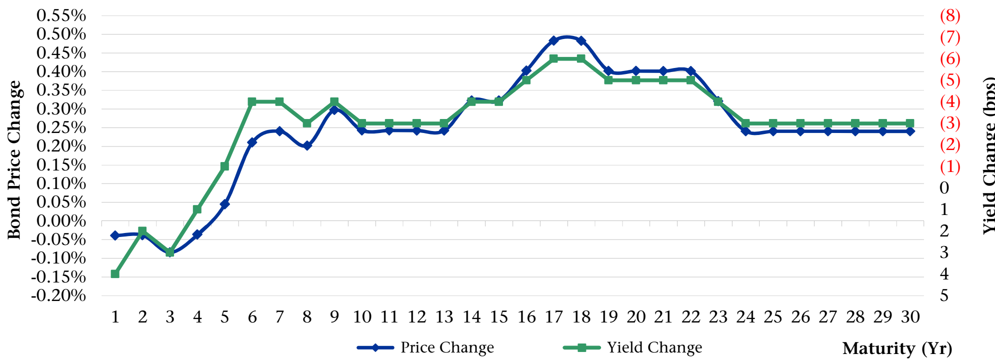


Sources: Loop Capital Markets, TM3 | *Callable AAA-rated G.O. bonds

The yield curve shows rich (5 to 9-yr and 25+ yr) and cheap (2-yr, 12-yr, 16 to 20-yr) points on the AAA MMD curve, based on one year holding period returns and assuming no change in the yield curve. The 18-yr maturity offers the highest expected total return.

Actual returns will depend on the level and shape of the yield curve a year from now.

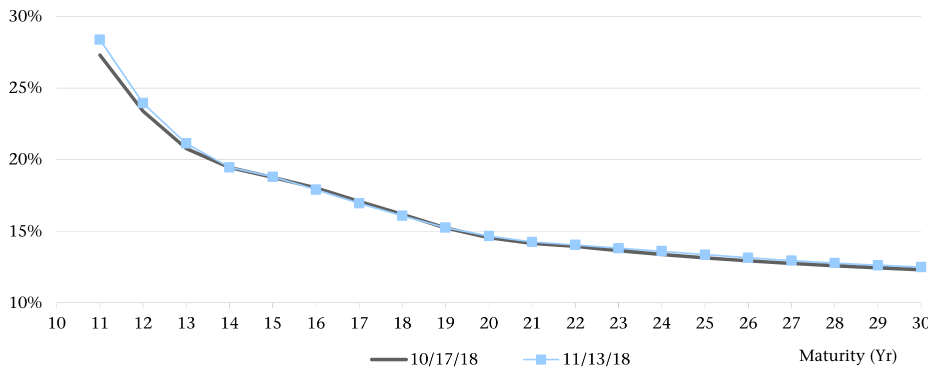
Figure 7 **Monthly Price Change — AAA GO Bonds* (10/14/18 — 11/14/18)**



Sources: Loop Capital Markets, TM3 | *Price Change Only

Muni yields declined between 3 and 6 bps in the 5 to 30-yr area of the curve, but rose on the front end last month. 17 to 18-yr range performed the best.

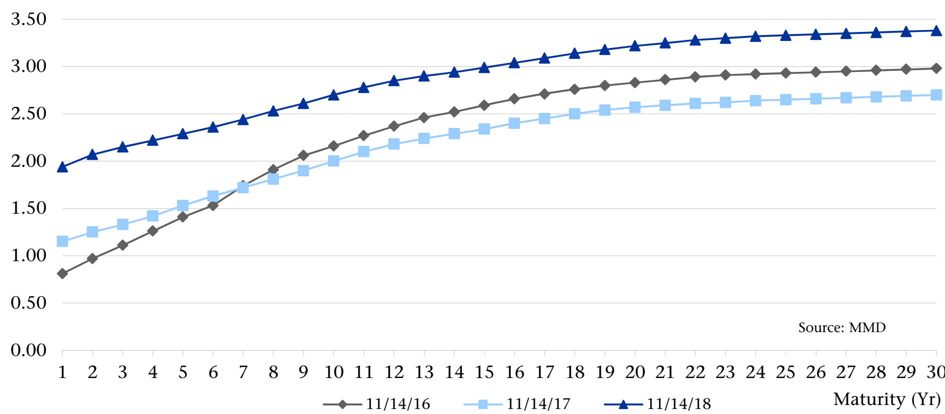
Figure 8 **Implied Municipal Volatilities**



Sources: Loop Capital Markets, TM3 | *10-year call

Implied volatilities were practically unchanged last month.

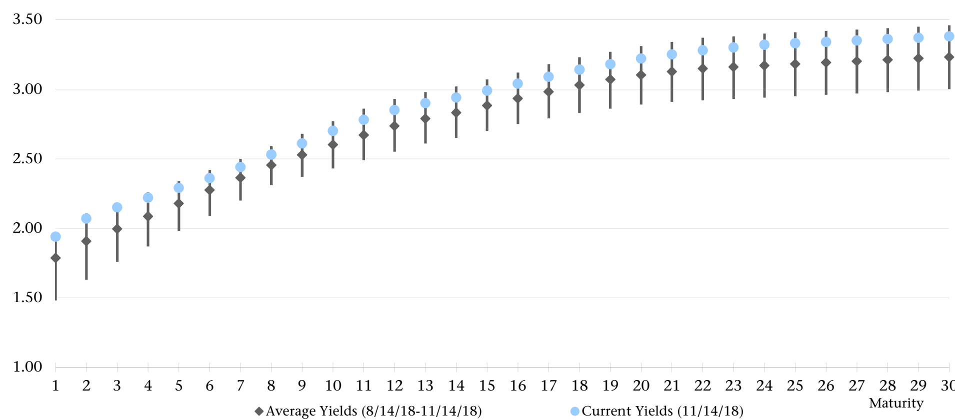
Figure 9 **Current vs. Historical Municipal Yield Curves (%)**



Source: TM3

Muni yields are 70 bps higher across the curve compared to a year ago. The curve has gradually flattened over the last 2 years.

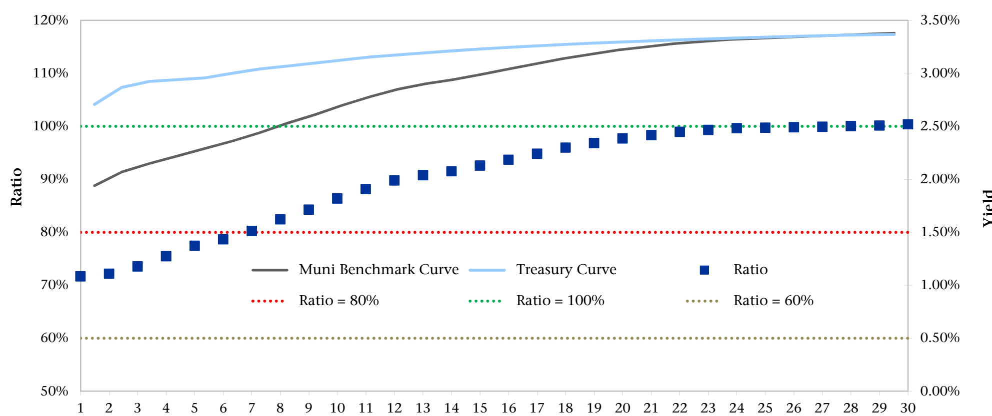
Figure 10 **3-Month Average Benchmark Muni Curve Yield**



Source: TM3

The yields are above their 3-month averages across the curve.

Figure 11 **Muni and Treasury Yield Curves and Ratios**



Sources: Eikon, TM3

The Treasury curve remains much flatter than the muni curve. M/T ratios are at 100% on the long end of the upward sloping ratio curve.

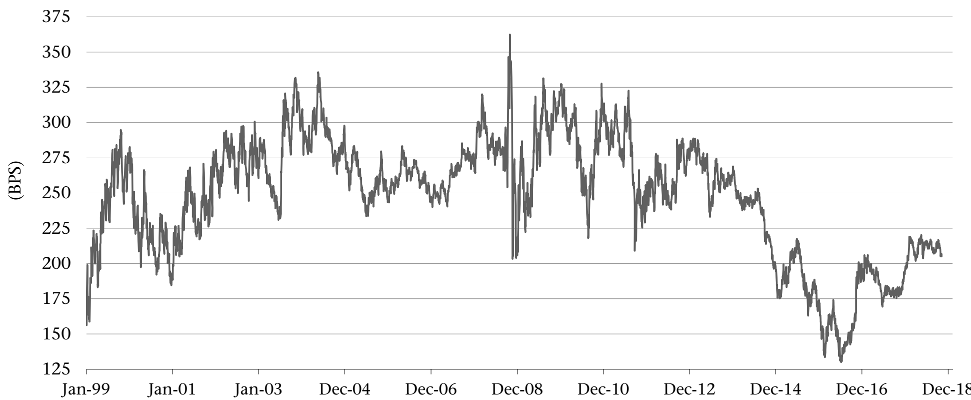
Market Conditions

Figure 12 **2 to 30-Yr Muni Spread (bps)**

Source: TM3

The slope of the curve has marginally steepened year-to-date despite Fed tightening.

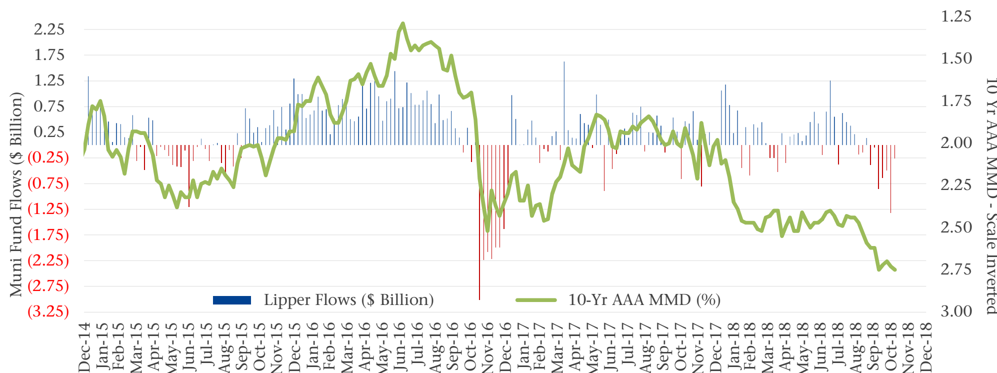
Figure 13 **Inflation Expectations**



Source: FRED

Fed's five-year forward breakeven inflation rate, derived from TIPS and regular Treasury yields has been range bound year-to-date.

Figure 14 **Lipper Weekly Municipal Mutual Fund Flows ($ Billion)**



Source: Lipper

Retail investors have pulled $4 billion out of mutual funds over the last 7 weeks, as muni yields continued to rise.

Loop Capital Markets Upcoming Negotiated Calendar

Date	Par Amount ($ mil)	Issue	Loop Capital's Role
11/20/18	393.7	North Carolina Turnpike Authority Sr. Lien Turnpike Revenue Refunding Bonds	Co-Manager
11/27/18	138.4	Metropolitan Water District of Southern California Water Revenue Refunding Bonds	Co-Senior Manager
11/27/18	TBD	Greensborough Taxable Limited Obligation Bonds Series 2018 (Parking Deck)	Co-Manager
11/28/18	190.0	State of Ohio — Treasurer of The State Highway Capital Improvement GO Bonds	Co-Manager
11/29/18	23.0	Louisiana Public Facilities Authority Millennium Housing LLC Student Housing	Senior Manager
Week of 11/26	750.0	Board of Education of the City of Chicago Unlimited Tax GO Bonds	Joint Bookrunner
Week of 11/26	90.0	Board of Education of the City of Chicago Dedicated Capital Improvement Tax Bonds	Joint Bookrunner

Internet News Report: 32-lb bass rescues a fisherman from Detroit River.

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Chris Mier, CFA, Managing Director
312.356.5840 | christopher.mier@loopcapital.com

Ivan Gulich, CFA, Senior Vice President
312.913.2204 | ivan.gulich@loopcapital.com

Vania Adams, Vice President
312.913.2229 | vania.adams@loopcapital.com

Rachel Barkley, Vice President
312.913.2297 | rachel.barkley@loopcapital.com

Maura Murrihy, CFA, Vice President
312.913.2236 | maura.murrihy@loopcapital.com

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