Loop Capital Markets

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Are Business Cycle Factors Still Relevant?

Conventional business cycle analysis which focuses on the degree of resource utilization in the real economy may have lost some of its explanatory value over the last 8 years. It is possible that business cycle effects may appear on the financial economy side of the ledger first, given the structural impediments to growth that are a feature of the economy. Confidence survey data may also illuminate business cycle pressures that may otherwise appear to be dormant.

By Chris Mier, CFA | Strategist

The US economy is close to full employment and inflation has begun to move towards the Fed's target level of 2%, or in some cases, above it. With the fulfillment of the dual mandate relatively close at hand, the Fed has begun to move more aggressively in removing accommodation. Forward guidance indicates two likely rate increases to follow the one in March. This would boost the fed funds target rate to a range of 1.25% to 1.50% by year-end 2017. At some point along the way towards a funds rate of 2.00% to 2.25% (forecasted in March SEP report) at year-end 2018, the Fed will begin to enunciate how they will manage the reinvestment of their portfolio cash flows.

While economic conditions give little cause for concern at present, the reality of an economy at full employment with inflation rising suggests that it is not too early to contemplate the next phase of the business cycle. Macroeconomic risks start to rise precipitously when economic conditions are near capacity, inflation is rising, and the Fed finds itself moving more quickly to stem inflation. This is when analysts look in the rear view mirror only to find the word "Peak" behind them, and an emerging trend of slowing production, rising inventories and precautionary savings beginning to pile up.

With the managed monetary economy of the last 8 years providing continued life support to the recovery, it is an open question as to whether the unusual conditions that have prevailed can still give way to a traditional business cycle adjustment downturn. Is the business cycle dead, or is it just dormant until the Fed withdraws sufficiently from its management of the economy to restore some degree of normalcy? Is there a new business cycle to go along with the new economy? In any case, the economy will eventually provide us with a real-time experiment in how business cycles behave when they come out of a cryogenic state.

Average Length of Business Cycle

Average Business Cycle Over Period	*Duration - Peak to Trough*	*Duration - Trough to Peak*
1854-2009 (33 cycles)	11	58
1854-1919 (16 cycles)	22	27
1919-1945 (6 cycles)	18	35
1945-2009 (11 cycles)	11	58
7/2009 - Current	19	93

SOURCE: NBER

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Are Business Cycle Factors Still Relevant?

As shown above, the current expansion is about 3 years longer than the longest average expansion using various periods of history. Viewed individually, the current expansion is 4th longest on record. The age of an expansion by itself does not imply vulnerability, but they wouldn't call it a business cycle if expansions didn't come to untimely demise.

In general, where the economy is along its current business cycle largely depends on where economic activity stands in relationship to a number of broad indicators reflective of how strong the economy is, how profitable for firms, and what inventories say about both sales activity and future expectations. The growth portion of the cycle is exemplified by a rebound in industrial production, expanding employment, increasing credit availability, profit growth, inventory expansion, and low inventories, while sales activity expands. The late stages of a growth portion of the cycle reflect a peaking in these activities followed by reduced investment and increasing risk aversion.

At present, there is little to indicate that economic activity is peaking. However, an argument can be made that the mature nature of the current cycle, combined with the Fed's increased urgency in raising interest rates, represent unwanted ballast to what we consider will be a fairly modest Trump Administration fiscal policy when everything is said and done. The primary risk of an earlier than expected business cycle downturn may arise from the Fed reacting to an overestimation of the strength of fiscal policy coming out of Washington.

New Policies—Localized Pain Before Diffuse Benefit

STIMULATIVE POLICIES			
		DIFFUSE IMPACT, BUT MORE FAVORABLE	LOCALIZED IMPACT, BUT NEGATIVE (OR NEUTRAL FOR INFRASTRUCTRURE)
TIMING OF POLICY IMPLEMEN-TATION	2017-18	CORPORATE TAX REFORM DEREGULATION	IMMIGRATION TRADE
	2018-19	PERSONAL INCOME TAX	ACA INFRASTRUCTURE (AS DESIGNED, WILL HAVE MARGINAL IMPACT)

CREDIT IMPACTS
BENEFIT SPREAD WIDELY

Complicating the picture are a confusing and contradictory mix of stimulative and contractionary fiscal influences from the Trump Administration. The platform owes its construction as much to politics as economics. The portions that are unambiguously favorable for economic growth—Corporate Tax Reform, Individual Tax Reform, and Deregulation—appear to be slower in securing lift-off in Congress and have benefits that are spread across the economy. The portion that has negative economic consequences—policies that reduce immigration, impose trade barriers, and would eliminate the ACA—appear to be moving ahead more rapidly and also have the additional disadvantage of having adverse location-specific impacts. Note that I have ignored infrastructure, which I believe will be a non-event from a growth standpoint, for reasons previous pieces discussed.

The timing of Trump policy initiatives suggest at least a preliminary tendency to implement policies that are more diffuse in terms of benefit after the implementation of painful, location specific policies. While, on balance, the Trump policies are broadly pro-growth and should expand the deficit, grow GDP and raise interest rates and inflation, the speed and timing of the impacts are uncertain. Thus, when policies are implemented, they may be pro-cyclical or counter-cyclical temporarily, until the full range of the impacts of all policies are felt.

New Sources of Business Cycle Fluctuation

While business cycles are generally viewed as creatures that grow out of full employment of resources, rising inflation, monetary reaction (or over-reaction) to inflation, and unwanted accumulation of inventory, there are other potential influences on business cycle formation. One more controversial theory is that business cycle fluctuations occur in response to changes in business and consumer confidence. There is some evidence that periods of high optimism have historically been followed by monetary policy contractions. The San Francisco Fed notes that *"recent empirical work indicates that these sentiments contribute significantly to economic ups and downs. Typically that means monetary policy remains accommodative when weakness in confidence becomes entrenched."* The current lofty state of consumer and business confidence suggest that a watchful eye for unwanted business cycle influences may be warranted.

While threats from adverse business cycle influences appear to be still a ways off, it is important to consider how these influences would emerge as the Fed continues to make progress in removing monetary accommodation. This is particularly true given that the nature of the business cycle may fundamentally have been changed by advances in the economy over the last 8 years and by the unprecedented monetary policy measures taken by the Fed, which may have masked, or altered, business cycle influences.

Economic and Interest Rate Forecast — March 2017

Factors Supportive of Lower Rates

Closely watched Atlanta Fed's GDPNow indicates that U.S. economy expanded at modest 1.0% annual rate in Q1.

Industrial production was flat year-to-date, while capacity utilization declined 0.2 points.

Construction spending declined 1% in January on drop in public projects.

Vehicle sales in February stagnated, suggesting that the demand for automobiles has cooled off.

Factors Supportive of Higher Rates

The U.S. added 235K jobs in February, following a 238K increase in January, supported by large gains in manufacturing and construction. The unemployment rate declined 0.1% to 4.7% in February, matching economists' expectations, while hourly earnings rose from 2.6% to 2.8% year-over-year.

Personal income rose 0.4% in January, fueled by strong job market and wage gains. While real personal consumption missed expectations due to a 0.3% jump in core PCE, consumers reported highest level of February spending in 9 years.

Core PPI rose 0.3% in February, after rising 0.4% in January, while Core PCE, the Fed's preferred inflation metric, advanced 0.3% in January.

Housing starts increased 3% in February, while new home sales surged 6.1% to the highest level in 7 years. The data suggests that construction is on a steady path in 2017 despite the recent rise in mortgage rates, with buyers benefiting from brisk hiring and healthier finances.

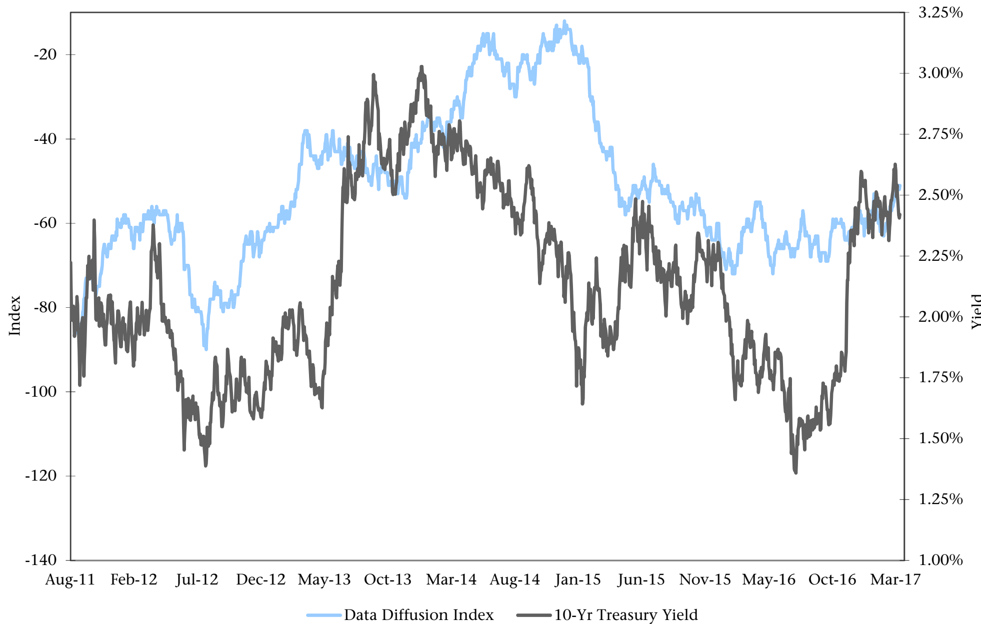
Figure 1 **Economic and Interest Rate Forecast—March 2017**

	1Q'16	2Q'16	3Q'16	4Q'16	1Q'17	2Q'17	3Q'17	4Q'17	1Q'18	2Q'18	3Q'18	4Q'18	Avg'16	Avg'17	Avg'18
Economic Forecasts															
Real GDP	0.8	1.4	3.5	1.9	2.1	2.5	2.6	2.7	2.6	2.9	2.3	2.1	1.6	2.4	2.6
Core PCE Deflator	1.6	1.6	1.7	1.7	1.8	1.8	1.9	2.0	2.2	2.3	2.5	2.4	1.7	1.9	2.4
Unemployment Rate*	4.9	4.9	4.9	4.7	4.7	4.6	4.6	4.5	4.6	4.5	4.4	4.4	4.9	4.6	4.5
Nonfarm Payrolls (chg in 1000s)	588	493	716	443	640	525	510	495	480	470	460	450	2,240	2,170	1,860
S&P 500	1,951	2,075	2,162	2,185	2,329	2,395	2,425	2,455	2,486	2,517	2,548	2,580	2,093	2,401	2,533
Short-Term Interest Rates*															
Fed Funds Target (%)	0.37	0.37	0.40	0.45	0.70	0.88	1.06	1.17	1.42	1.63	1.81	1.93	0.40	0.95	1.70
3-Month LIBOR (%)	0.62	0.64	0.79	0.92	1.06	1.20	1.34	1.41	1.61	1.78	1.92	2.00	0.74	1.25	1.83
7-Day SIFMA (%)	0.08	0.40	0.55	0.66	0.65	0.75	0.85	0.95	0.95	1.15	1.15	1.25	0.42	0.80	1.13
Treasury Interest Rates*															
2-Year Treasury (%)	0.83	0.77	0.72	1.00	1.26	1.40	1.52	1.57	1.76	1.91	2.03	2.08	0.83	1.44	1.94
3-Year Treasury (%)	1.02	0.91	0.84	1.23	1.54	1.68	1.79	1.84	2.02	2.16	2.28	2.32	1.00	1.71	2.20
5-Year Treasury (%)	1.36	1.24	1.12	1.61	1.98	2.12	2.22	2.25	2.43	2.56	2.66	2.70	1.33	2.14	2.59
7-Year Treasury (%)	1.68	1.53	1.39	1.93	2.29	2.41	2.52	2.54	2.72	2.84	2.94	2.97	1.63	2.44	2.87
10-Year Treasury (%)	1.91	1.74	1.56	2.13	2.48	2.65	2.82	2.84	3.01	3.13	3.21	3.25	1.84	2.70	3.15
30-Year Treasury (%)	2.72	2.57	2.28	2.83	3.07	3.18	3.27	3.30	3.46	3.59	3.68	3.72	2.60	3.21	3.61
Municipal Interest Rates*															
30-Year MMD (%)	2.76	2.42	2.15	2.86	3.11	3.20	3.28	3.28	3.42	3.52	3.59	3.57	2.55	3.22	3.53
Muni Yield Curve Slope (%)	2.31	1.85	1.60	2.02	2.26	2.32	2.30	2.20	2.34	2.24	2.31	2.19	1.95	2.27	2.27

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 March 13, 2017

Market Review *Data Diffusion | ADS Index*

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

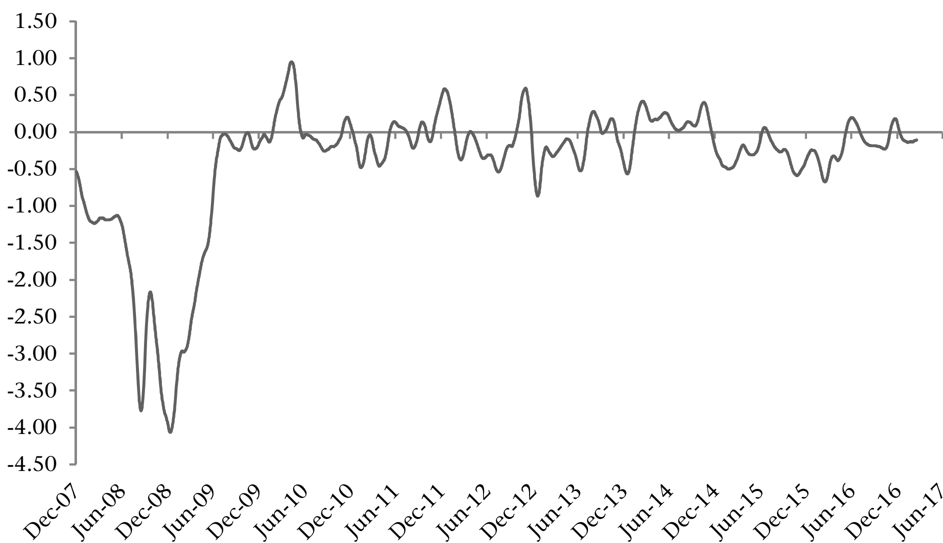


Source: FRED, Loop Capital Markets

After Treasury rates surged in the aftermath of November election, the long-run relationship between the data diffusion index and 10-yr Treasury yield was restored. Over the last 30-days rates rose as economic releases came in stronger than expected.

Data Diffusion Index: We calculate the Data Diffusion Index based on 30 different weekly and monthly 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—3/25/2017)**



Source: Federal Reserve Bank of Philadelphia

The index has been slightly negative year-to-date. The comparison is relative to the trend growth rate 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.

Can Pension Risk Be Avoided?

By Rachel Barkley | Vice President

Pensions continue to weigh on credit ratings and spreads, showing no signs of abating. Given this, analysts may want to underweight pension risk in their portfolio going forward. With this in mind, we looked at pension budgetary pressure across seven sectors, including states, cities, counties, school districts, universities, airports and water/sewer utilities, to gain a better understanding of pension risk across these industries. Pension spending was used as the comparative metric as it is able to be compared across general government entities, such as states and cities, as well as enterprise operations. Capital intensive operations substitute capital for labor, lowering their pension exposure, while government operations typically use more pension benefits than enterprises. The profitability of these local enterprises is not generally linked to local pension plans.

Comparing various general government and enterprise activities reveals wide disparities in budgetary pension burdens. Cities spend by far the largest portion of their budgets on pensions, followed by counties. Airports, states and universities, on the other hand, are all clustered at the bottom, spending less than 4% of operating expenses on pensions.

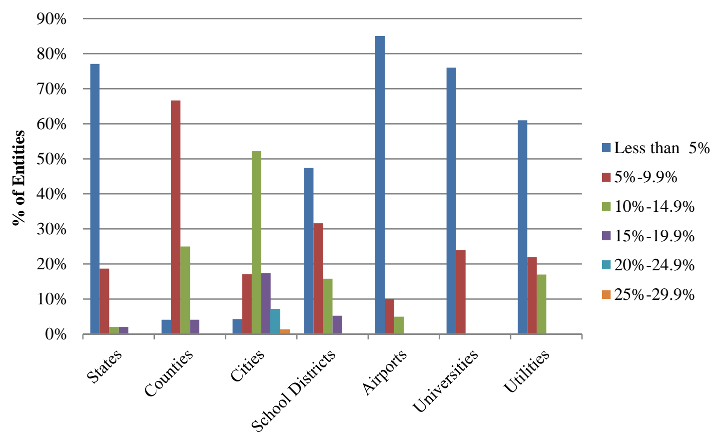
Contributions as a % of Spending: 2015 Sector Averages

Sector	%
Airports	3.7%
States	3.8%
Universities	3.9%
Water/Sewer	4.8%
School Districts	6.5%
Counties	9.5%
Cities	13.0%

The reasons for the variance in pension spending pressures are numerous. Sectors with less exposure to public safety pension liabilities tend to require less of their budget to go to pensions. School districts in many cases have some or all of their pension contributions paid for by the state, significantly lowering their required contributions. Airports and utilities are less personnel-intensive than other sectors, requiring a smaller share of their budget to go to salaries and benefits.

It should be noted that there are wide ranges within each sector and outliers for each category. Amongst the largest 25 airports, 85% contribute less than 5% of operating expenses to pensions. Cities have the broadest range, with the largest 70 cities contributing between 4.5% and 29% of General Fund spending to pensions in fiscal 2015. Amongst the largest 25 school districts nationwide, the percentage of General Fund spending spent on pension varies from 2.3% for Cypress-Fairbanks ISD, Texas to 19.4% for Clark County School District, Nevada. Universities have the most condensed range, with the surveyed systems contributing between 0% and 8.3% of spending.

Pension Contributions as % of Spending: Range by Sector



Looking across sectors allows us to compare entities that cover the same or similar service areas. This is particularly useful with cities, which contribute on average the largest percentage of their budgets to pension contributions, airports and utilities.

Pension Contribution as % of Spending by Service Area

City		Airport*		Utility	
New York City	12.9%	NYNJPA	3.8%	NYC Water and Sewer	0.01%
Los Angeles	17.4%	**LAX**	**12.2%**	LA DWP Water	13.4%
Chicago	13.8%	**ORD**	**3.2%**	Chicago Water	1.7%
Houston	14.9%	**IAH**	**N/A**	Houston Utility System	1.5%
Phoenix	21.7%	**PHX**	**4.4%**	Phoenix Water	N/A
Philadelphia	13.7%	**PHL**	**N/A**	Philadelphia Water Department	10.0%
San Antonio	10.7%	**SAT**	**N/A**	SAWS	1.0%
San Diego	22.3%	SAN	2.7%	San Diego Water System	3.2%
Dallas	14.4%	DFW	4.5%	Dallas Waterworks and Sewer System	2.8%
San Jose	29.0%	**SJC**	**9.4%**	Santa Clara Valley Water District	10.0%

**Airports owned and operated by the city are bolded*

The table above shows the largest 10 cities, along with their applicable major airport and utility system. In each of the examples, city contribution as a percentage of budget is higher than for both the applicable airport and utility. This is especially notable as pension pressures, such as the relative generosity of pension benefits and demographic trends, tend to be somewhat uniform between entities covering the same city, as the airport and utility are often divisions of the city.

In general, airports and utilities do not participate in city/public pension safety pension plans and they may or may not participate in city employee pension plans.

Looking at states and universities, universities pay a higher percentage of spending on pensions in 19 of the largest 25 states. However, among the top contributing states, associated universities don't have corresponding high pension budget burdens, contributing far lower percentages of spending than the state. This is most notable in Illinois, where the state makes pension contributions on behalf of the University of Illinois, leading to the university contributing no money to the system in fiscal 2015.[1]

Overall, analysts looking to reduce pension exposure in their portfolios may benefit from considering concentrating in certain sectors. While there are ranges within each sector, airports, states and universities have low average budgetary pressure from pensions. Airports also benefit from an FAA mandated closed-loop system. In cases where the local government owns and operates the airport, airports operate as financially independent entities with closed financial systems. In accordance with federal aviation law, regulation and FAA grant agreements, airport revenues and property may only be used for aeronautical purposes, providing a degree of protection from general city or county pension stress[2]. Airline agreements with each airport often contain similar restrictions. These restrictions insulate airports from their overlapping jurisdiction, even in times of local fiscal stress, unlike utility enterprises, which frequently subsidize general government operations. Some amount of cost recovery is possible for the city or county, for general government services such as public safety services, although this is quite limited compared to the size of airport budgets. This differs from public universities, which often rely on state appropriations as a significant funding source, leaving those in states with pension challenges vulnerable to reduced state funding.

Pension Contributions as % of Spending: Largest 25 States and Associated Public Universities

State	%	University	%
Alabama	13.0%	University of Alabama	6.7%
Arizona	1.1%	Arizona State University	1.6%
California	4.7%	University of California System	8.3%
Colorado	2.3%	University of Colorado	5.0%
Florida	1.3%	University of Florida	3.2%
Georgia	2.1%	University of Georgia	5.6%
Illinois	15.1%	University of Illinois	0.0%
Indiana	6.5%	Indiana University	2.3%
Louisiana	2.8%	Louisiana State University	8.9%
Maryland	5.9%	Univeristy of Maryland, College Park	4.0%
Massachusetts	4.3%	University of Massachusetts	3.4%
Michigan	2.9%	University of Michigan	3.6%
Minnesota	1.1%	University of Minnesota	3.9%
Missouri	2.5%	Missouri	3.7%
New Jersey	2.3%	Rutgers University	3.5%
New York	2.9%	SUNY	4.5%
North Carolina	0.9%	University of North Carolina	3.3%
Ohio	1.1%	Ohio University	6.1%
Pennsylvania	1.7%	Pennsylvania State University	4.0%
South Carolina	2.6%	University of South Carolina	4.8%
Tennessee	1.4%	University of Tennesee	4.8%
Texas	2.5%	University of Texas	1.5%
Virginia	1.6%	University of Virginia	3.5%
Washington	1.5%	University of Washington	2.2%
Wisconsin	1.1%	University of Wisconsin	2.9%

Methodology

Spending levels for general governments were calculated based on General Fund spending. Operating expenses were used as the base for the remaining sectors.

Data for cities and states was taken from Loop's *2015 Annual Pension Report*, while county data is from Loop's *2015 County Pension Report*.

Additional sector data was derived from the largest 25 airports, water/sewer utilities providing service to the largest 25 cities, public university systems in the largest 25 states and the largest 25 school districts.

Data was taken from the most recently published CAFRs.

[1] University of Illinois. Annual Financial Report. June 30, 2015.
[2] Federal Aviation Authority. Grant Assurances Section C 25. March 2014.

Impact of Florida's Constitutional Review Unclear

By Rachel Barkley | Vice President

On March 20th, Florida's Constitution Revision Commission (CRC or the Commission) came to order. The Commission, which meets every 20 years, is tasked with examining the Constitution, meeting with residents, performing research and recommending constitutional amendments or additions to voters. Florida is the only state to have a body formed on a set schedule with the sole responsibility of reviewing the state constitution. The CRC is one of five ways the Florida Constitution can be amended, as detailed in Article XI and shown in the accompanying table.

Methods for Amending Florida Constitution[3]

1	Joint resolution of the Legislature approved by three-fifths of each House.
2	Constitution Revision Committee
3	Citizen's initiative achieved through gathering required amount of signatures
4	Constitutional convention
5	Taxation and Budget Reform Commission (TBRC) may propose amendments if 18 of its 25 members approve

Proposals for all five methods must then be approved by voters to come into effect.

This will be the third CRC to meet and the first CRC since the state government has been under Republican control. The state's rapid population growth and changing government needs were key reasons for forming the CRC for the first time in 1977[4]. State's population at the time had more than doubled over the prior 20 years. Florida's population has now increased 33% since the last CRC from 15.5 million people in 1998 to 20.6 million people in 2016.[5]

The Commission, which is governed by Article XI, Section II of the Constitution, is able to propose the revision or amendment of any portion of the constitution. The revision process typically takes roughly a year. Suggested amendments will be on the November 2018 ballot, and will require a 60% voter approval rate to pass. Proposals must be submitted at least 180 days before the November 2018 election and do not require approval from the Governor or Legislature. However, both the Governor and Legislature played an integral part of putting together the Commission, which is made up of 37 members, including the Florida Attorney General, 15 members appointed by the Governor, nine appointed by the Senate President, 9 appointed by the Speaker of the House and 3 appointed by the Chief Justice of Florida Supreme Court.

The composition of the Commission will naturally influence the areas it will choose to focus on. [6] Carlos Beruff, a developer who previously ran for U.S. Senate, has been selected by Governor Scott to chair the Commission.

[3] League of Women Voters of Okaloosa County.
[4] Florida State University College of Law, CRC Digital Legal Collections.
[5] U.S. Census
[6] President Negron Announces Appointments to Florida Constitution Revision Commission. The Florida Senate. February 15, 2017.

While the potential areas the CRC can address are many, there has been some indication of areas they may choose to concentrate on. Senate President Negron has stated he believes school choice is a priority for the panel to address.[7] One of the board members is the CEO of the Foundation for Excellence in Education, a school choice advocacy group, furthering the likelihood that this will be debated. A CRC member Bob Sorki has recommended shortening the Constitution and making it less complex, although specific details as what would be cut remain to be determined.[8] The current Constitution is quite lengthy at 58,000 words, more than seven times the length of the U.S Constitution. It also contains a longer section regarding the treatment of pregnant pigs than the federal version allots to the First Amendment.[9]

The current Commission has already become the subject of controversy. The First Amendment Foundation has protested the rules the Commission follows, calling for a more transparent process. Currently only meetings between three or more commissioners will be open to the public.[10] Three public hearings will be held over the next few months throughout the state, beginning with meetings on March 29th in Orange County, April 6th in Miami-Dade and April 7th in Palm Beach County.[11]

The results of the CRC may likely impact how the state and local government function, including potential effects to credit quality and should be followed by analysts. The Florida Constitution has several provisions related to government powers, and state and local bond issuance, which may impact credit quality if amended. The possible impact can be seen by looking at the results of the prior Commission. The 1997-1998 CRC suggested nine proposals, eight of which were approved by voters. Several of these had a direct impact on credit quality or bond issuance, including extending indefinitely the constitutional authorization to issue revenue bonds to purchase conservation land, shifted the costs of a majority of the judicial system from counties to the state. The one measure that failed would have broadened tax exemptions. Voters rejected all eight proposals from the 1977-1978 CRC.[12]

[7] Abortion, school issues could roil constitution panel. Orlando Sentinel. March 18, 2017.
[8] Constitution Revision Commission convenes. Tallahassee Democrat. March 20, 2017.
[9] Work Begins Soon On Possible Changes To Florida Constitution. WUWF Northwest Florida NPR. March 10, 2017.
[10] Constitution Revision Commission convenes. Tallahassee Democrat. March 20, 2017.
[11] Florida Constitution Revision panel starts once-every-20-years job. Palm Beach Post. March 20, 2017.
[12] Constitution Revision Commission convenes. Tallahassee Democrat. March 20, 2017.

Corporate Tax Reform Update

By Ivan Gulich | Senior Vice President

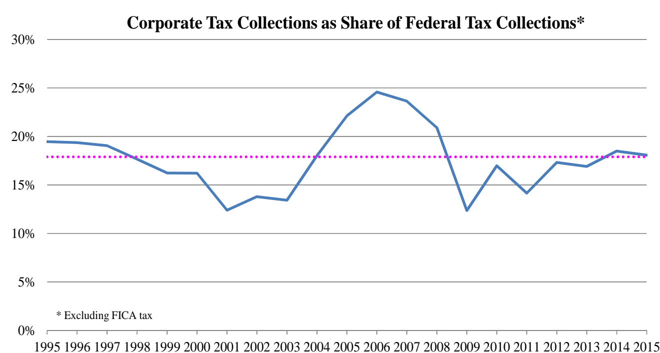
Investors have responded enthusiastically to Trump's November victory with increased expectations of improved economic growth. One of the key components of new administration's legislative agenda that is expected to boost U.S. economy is corporate tax reform.

Criticisms of the current system of corporate taxation are numerous. The corporate statutory tax rate of 35%, among the highest in the world, is seen as punitive. The tax system is extremely complex, with loopholes that allow savvy companies to avoid paying taxes. The system encourages companies to invest outside the U.S. and keep profits overseas just to avoid corporate taxation.

Current corporate tax system, characterized by a wide disparity between marginal and average tax rate, is considered economically inefficient.

Corporate Tax Burden

The IRS data and various studies clarify the effective tax burden on corporations. The corporate share of overall tax collections in 2015, the most recent year for which information is available, was at the 20-yr average level of about 18%.[13]



Corporate tax collections are very volatile, because corporate profitability is very sensitive to the business cycle. For example, corporate tax collections plunged from $351 billion in 2006 to $130 billion in 2009. During this period, individual tax collections declined only 14%, compared to 63% drop in corporate tax collections.

[13] Internal Revenue Service: *SOI Tax Stats - Collections and Refunds, by Type of Tax - IRS Data Book Table*, Updated February 17, 2017

The effective corporate tax rate is significantly lower than the statutory rate. A new study by The Institute on Taxation and Economic Policy (ITEP) calculated that 258 Fortune 500 corporations, which were consistently profitable over the eight-year period from 2008 to 2015, paid an effective federal income tax rate of 21.2% during this period. Eighteen of these corporations paid no federal income tax at all, while the effective tax rate for another 48 firms was below 10%.

More than half of corporations with significant offshore profits paid taxes at higher rates to foreign governments in the countries where they operate than they paid in the United States on their U.S. profits. Five companies received 25% of the aggregate tax breaks enjoyed by 258 corporations, with an additional 20 companies accounting for an additional 30% in aggregate tax breaks.

Concentration of tax breaks in the hands of few very large corporations means that any tax reform would have disparate income effects across firms and industries, which makes reaching a consensus much more difficult.

The sectors with the lowest effective corporate tax rates were Utilities, Gas & Electric (3.1%), Industrial Machinery (11.4%), Telecommunications (11.5%), Oil, Gas, and Pipelines (11.6%), and Internet Services and Retailing (15.6%).[14]

According to Goldman Sachs, the effective combined federal, state and local tax rate for S&P 500 companies is 28%.[15]

Impact of Tax Reform

Reducing corporate taxes would boost earnings and, by extension, stock prices, assuming P/E ratios remain the same. Share prices would rise by about 1.25% per each percentage cut in effective corporate tax rate, assuming that 100% of savings accrue to shareholders. However, an analysis of corporate taxation at the state level concluded that about 35% of costs/benefits of raising/cutting corporate taxes accrue to employees, not investors.[16]

The plans by House Republicans and President Trump would cut corporate tax rates to 20% and 15%, respectively. Considering that the effective corporate tax rate is currently about 21%, and that part of the savings would not accrue to shareholders, the boost to

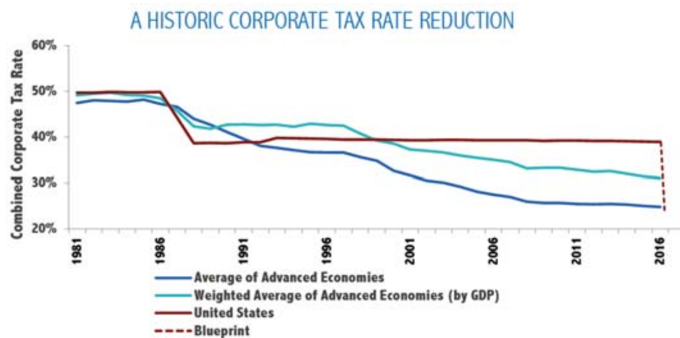
[14] The Institute on Taxation and Economic Policy: *The 35 Percent Corporate Tax Myth*, March 2017
[15]: Justin Lahart: *A Taxing Problem for Investors*, The Wall Street Journal March 7, 2017
[16] Serrato, Zidar: *Who Benefits from State Corporate Tax Cuts? A Local Labor Markets Approach with Heterogeneous Firms*, NBER Working Paper No. 20289 Issued in July 2014

corporate profitability and stock prices from implementing corporate tax reform appears relatively limited.

While tax savings may be smaller than anticipated, the overhaul of the system of corporate taxation would have far-reaching implications that would likely stimulate the U.S. economy.

House Tax Reform Blueprint

The House GOP tax reform blueprint,[17] released in June 2016, is the basis for the legislative proposal currently developed the by House Ways and Means Committee. Since the last major overhaul of the tax code in 1986 corporate tax rates have been slashed across advanced economies. Today's comparatively high U.S. statutory tax rate puts American corporations at a disadvantage.



Source: Tax Reform Blueprint, House GOP, June 24, 2016

A cornerstone of the House plan is the implementation of the 20% border-adjustment tax that would offset the loss in federal revenue from lowering the statutory tax rate from 35% to 20%.

American companies are taxed on their worldwide earnings, while all other major economies have adopted territorial system, under which local companies are not taxed on income earned abroad. Under current law, companies have an incentive to shield their profits, which is why American firms keep about $2 trillion in overseas earnings outside the United States. The tax regime also encourages firms to move production and even corporate citizenship to foreign countries.

Under border adjustment tax, companies would be taxed only on profits from sales in the United States. Profits from selling imported goods would be taxed, but profits from exporting American products abroad wouldn't. By adopting the tax regime used by major trading partners, the proposal would level the playing field in international trade, ending the advantage that foreign-made goods have over U.S.-manufactured products.

[17] House GOP: *A Better Way, Our Vision for a Confident America—Tax*, June 24, 2016

This system would incentivize firms to build manufacturing plants in the U.S. and export products tax-free, boosting job creation and narrowing the trade deficit. The tax would also generate revenue that would offset the loss from cutting corporate taxes.

Under this tax regime, it would no longer matter where the corporation is headquartered. The "tax-inversion" deals, which consist of relocating a corporation's legal domicile to a tax-haven, while retaining operations in the U.S. in order to avoid taxation would become the thing of the past. Multinational companies would no longer be able to shift reporting their profits to low-tax jurisdictions.

The bill is supported by American exporters, such as aircraft manufacturers, aerospace companies and semiconductors, who stand to benefit under the House Republican plan.[18] It is opposed by retailers, who sell large volumes of imported goods in the U.S., and would pay higher taxes under the plan. They point out that higher taxes on imports would raise consumer prices and are lobbying to remove the border adjustment tax provision. On the other hand, the border adjustment tax would make domestic production more competitive.

Another important provision in the House proposal would allow businesses to fully deduct the cost of their capital investments in the year they make them, instead of having to depreciate/amortize the investment over its useful life. On the flip side, the plan would eliminate tax deductibility of interest on debt used to finance investments, a provision opposed by businesses (and probably buyout firms) who rely on debt financing.

So-called "special interest" tax breaks, such as tax credits related to renewable energy, low income housing and employment would be eliminated as well.[19]

Finally, maximum ("pass-through") rate for taxing earnings by partnerships, proprietorships, investment trusts and LLCs would be 25%, instead of marginal individual tax rate.

There is no consensus among House republicans whether corporate tax reform should be revenue-neutral or not. However, any plan on the Senate side is expected to offset rate reduction with base broadening measures.[20]

[18] Jagoda: *Aerospace, semiconductor groups back House GOP tax plan*, The Hill, March 14, 2017
[19] Jagoda: *Tax-reform challenges go beyond border fight*, The Hill, March 15, 2017
[20] Basu, Davidson: *Senate Combs Past Proposals for Border Tax Alternative*, Bloomberg, March 15, 2017

Tax Reform Outlook

The White House has not yet released their corporate tax proposal. President Trump told the reporters that even though the tax reform plan was close to being finalized, it could not be submitted before Affordable Care Act (ACA) is repealed. Some Congressional Republicans do not expect Trump to put forth his own, detailed tax plan, but instead largely endorse their ideas.

Republicans planned to push both policies through Congress by using budget reconciliation procedure.

Unlike regular legislation, which can be filibustered by Democrats, reconciliation requires only simple majority vote in the upper chamber to pass. Statutorily, both proposals cannot be addressed in the same reconciliation. GOP has decided to pursue at least partial ACA repeal in FY 2017 reconciliation, followed by Tax Reform through FY 2018 reconciliation.[21]

The failure of House GOP to pass a bill to repeal and replace ACA on March 24 has disrupted republican legislative agenda. The intransigence of the members of the Freedom Caucus, whose votes are needed to pass any bill, exposed the limits of President Trump and Speaker Ryan's ability to deliver on their election promises.

The original plan was to eliminate $1 trillion of ACA taxes and associated federal spending by overhauling Obamacare, which would make it easier to pass a corporate tax reform, since the tax plan must not add to federal deficit over a period of 10 years in order to qualify for budget reconciliation. Ryan acknowledged that the absence of these savings does make tax reform more difficult.[22]

This suggests that the tax reform would be less ambitious than anticipated.

The fundamental problem that hinders Republican initiatives is that GOP base is not unified on economic issues. The ACA bill satisfied neither purist hardliners, nor a significant portion of Trump voters who rely on federal subsidies to obtain health insurance. Repealing Obamacare taxes would have mostly benefited the wealthy, because they pay most of those taxes.

Trump was propelled to office by winning a few critical states by a very small margin. A substantial number of his voters in those states have benefitted from ACA and pay little or no federal tax. Worsening or eliminating their health insurance, while implementing tax cuts they do not benefit from, carries substantial political risk.

Overhauling healthcare and implementing individual and corporate tax reform are very ambitious plans that require spending a lot of political capital. Since changes in healthcare and taxation affect everyone, if GOP overplays their hand, they risk being swept out of office, as happened to House Democrats in 2010 elections.

The Chairman of the Ways and Means Committee, Rep. Kevin Brady of Texas, hopes to produce a bill based on the House blueprint by this summer, so that it could be passed in the fall.

Tax reform is a very contentious issue that has historically required a high degree of bipartisanship. Reconciling many competing interests is a daunting task under best of circumstances. For example, business community is divided over border tax adjustment provision.

Assuming individual tax reform is part of the legislative package, contentious tax deductions (for mortgage interest, state and local taxes, charitable contributions and muni bonds) as well as issues such as marginal tax rate, earned income credit and estate taxation will resurface. Much of the savings will accrue to individuals in highest tax brackets, not the majority of Republican voters. On the other hand, cutting taxes without exacerbating budget deficits is challenging.

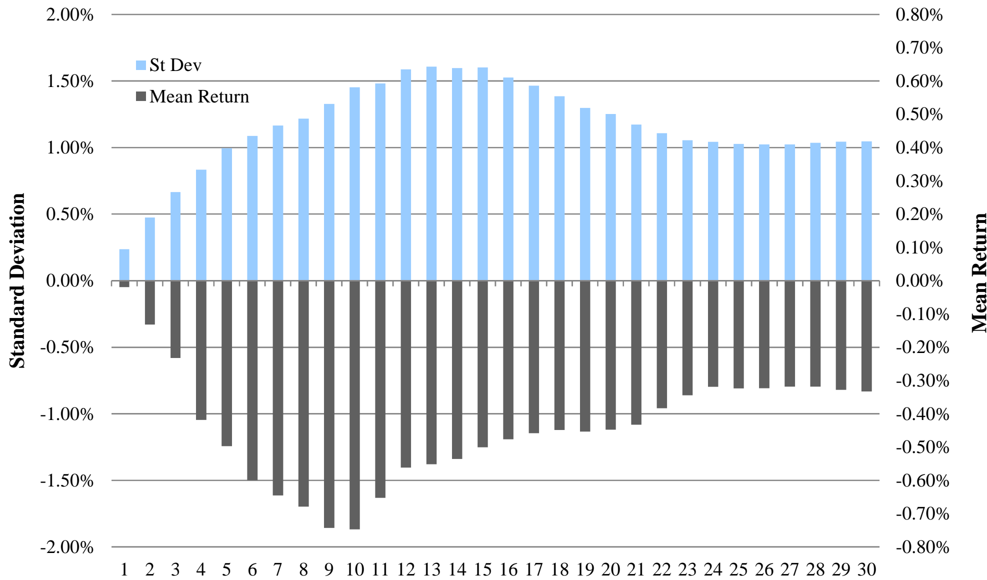
For all these reasons, it remains to be seen how successful GOP policymakers will be in navigating the corporate tax reform.

[21] Pramuk: *Trump: Tax reform plan is 'very well finalized' but will come after ACA repeal*, CNBC, February 22, 2017

[22] Rappeport: *Dealt a Defeat, Republicans Set Their Sights on Major Tax Cuts*, The New York Times, March 26, 2017

Market Review *Historical Monthly Bond Price Changes*

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



Sources: Loop Capital Markets

We show historical bond price changes for each point on the muni benchmark callable curve during the month of March for the last 16 years.

The returns in March were negative in 13 years out of 16 for 5-yr maturity and 10 times out of 16 for 30-yr maturity, declining, on average, by 0.44% across the curve.

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

AAA MMD - MONTHLY PRICE CHANGE

Maturity	5	10	15	20	25	30
Jan-01	0.57%	0.55%	0.54%	0.46%	0.38%	0.15%
Jan-02	-2.72%	-3.06%	-2.44%	-2.13%	-1.97%	-2.05%
Jan-03	-0.27%	-0.56%	-0.24%	-0.16%	-0.31%	-0.16%
Jan-04	-0.58%	-0.96%	-1.10%	-0.78%	-0.63%	-0.71%
Jan-05	-0.97%	-1.50%	-1.34%	-1.02%	-0.55%	-0.55%
Jan-06	-0.75%	-1.89%	-1.65%	-1.57%	-1.41%	-1.41%
Jan-07	-0.04%	-0.79%	-1.26%	-1.18%	-1.18%	-1.18%
Jan-08	1.70%	3.14%	3.84%	2.69%	1.89%	1.97%
Jan-09	0.40%	-0.48%	0.56%	0.16%	0.08%	0.23%
Jan-10	-1.34%	-1.99%	-1.27%	-0.32%	-0.08%	-0.08%
Jan-11	-0.04%	-1.75%	-0.48%	-0.79%	-0.70%	-0.86%
Jan-12	-1.35%	-2.10%	-2.88%	-2.15%	-1.27%	-1.27%
Jan-13	-0.32%	-0.82%	-1.69%	-1.77%	-1.44%	-1.44%
Jan-14	-1.39%	-0.73%	0.16%	0.32%	0.48%	0.56%
Jan-15	-0.23%	0.49%	0.41%	0.32%	0.57%	0.57%
Jan-16	-0.63%	0.49%	0.82%	0.73%	0.98%	0.89%
Mean	-0.50%	-0.75%	-0.50%	-0.45%	-0.32%	-0.33%
St Dev	1.00%	1.45%	1.60%	1.25%	1.03%	1.05%

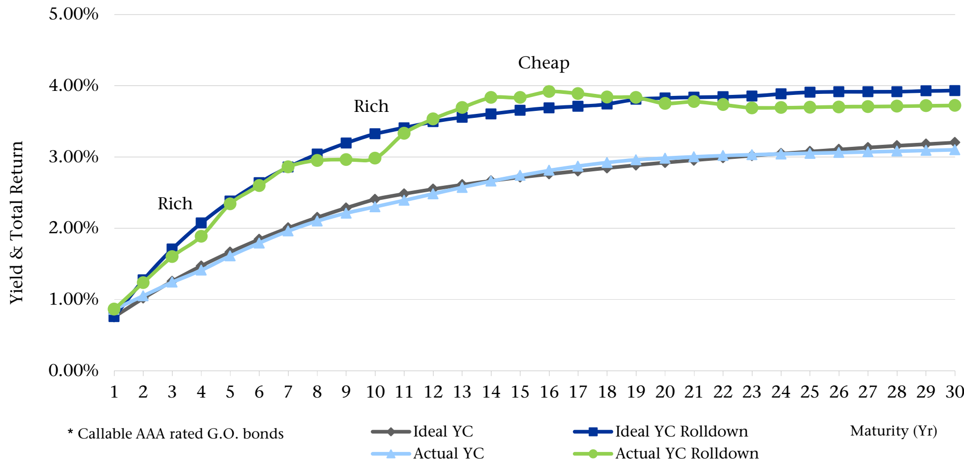
Source: Loop Capital Markets

The 10-yr point has the lowest expected return of negative 0.75%.

The 12 to 15-year range was most volatile, with standard deviation of monthly bond price changes of 1.60%. The returns are more volatile in the 10 to 20-yr range than on the long end of the curve.

Market Review *The Yield Curve*

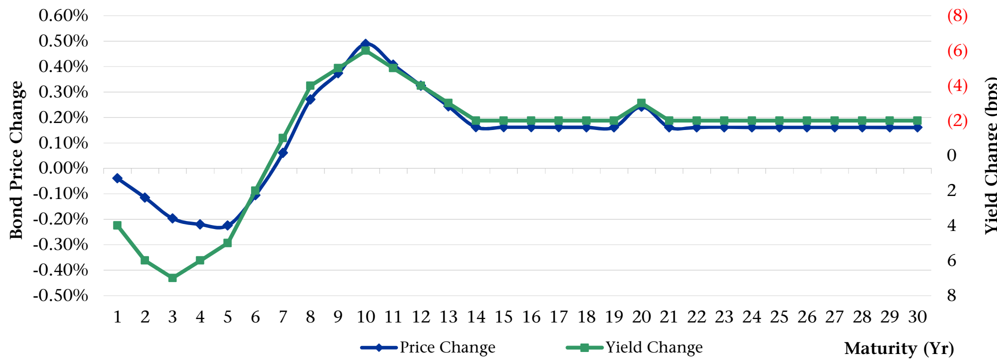
Figure 6 **1-Year Forward Roll-down—Muni Benchmark Curve* (March 22, 2017)**



Source: Loop Capital Markets | *Callable AAA-rated G.O. bonds

The yield curve shows rich (4-yr, 9 to 10-yr, 22+ yr) and cheap (13 to 18-yr) points on the AAA MMD curve, based on one year holding period returns and assuming no change in the yield curve. 16-yr maturity offers the highest expected total return.

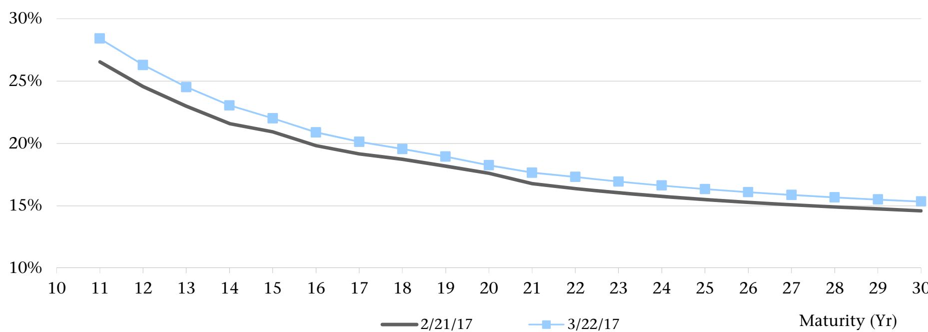
Figure 7 **Monthly Price Change — AAA GO Bonds* (2/23/17 — 3/23/17)**



Source: Loop Capital Markets | *Price Change Only

Yields rose 5 to 6 bps, on average, in the 2 to 5-yr range and declined by the same amount in the 9 to 11-yr area, resulting in a somewhat unusual shape of the graph.

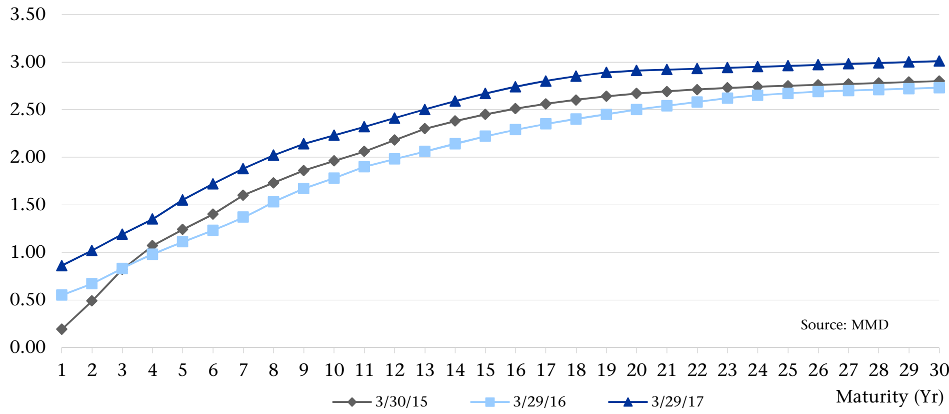
Figure 8 **Implied Municipal Volatilities**



Source: Loop Capital Markets | *10-year call

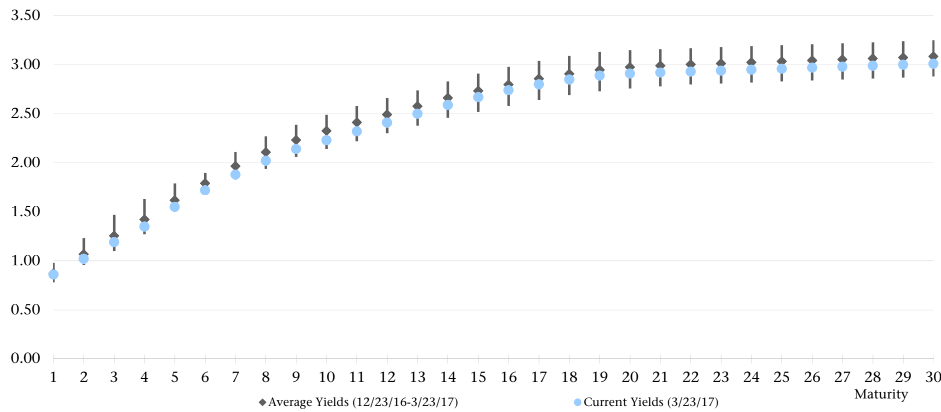
Implied volatilities rose last month by about 1 percentage point in the callable area of the curve, as yields declined.

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



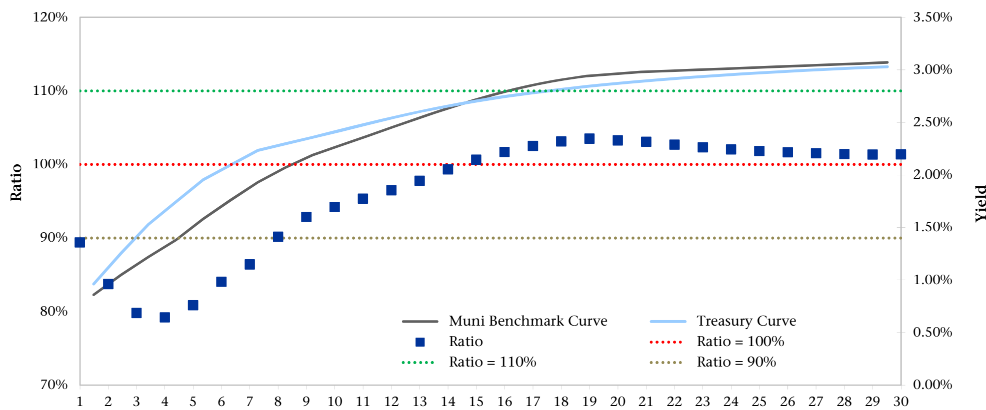
Yields are higher across the curve than they were 12 and 24 months ago.

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



Yields are below their 3-month average values across the curve.

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



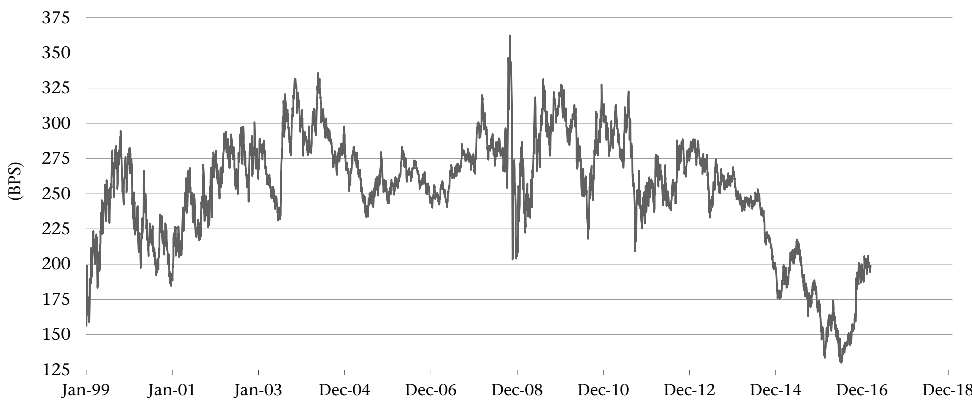
On the front-end muni yields are lower than Treasury yields, while in the 15 to 30-yr area of the curve the ratios are above 100%.

Market Conditions

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

The slope of the curve steepened by about 20 bps year-to-date despite monetary tightening in mid-March and Fed policymakers' increasingly hawkish stance.

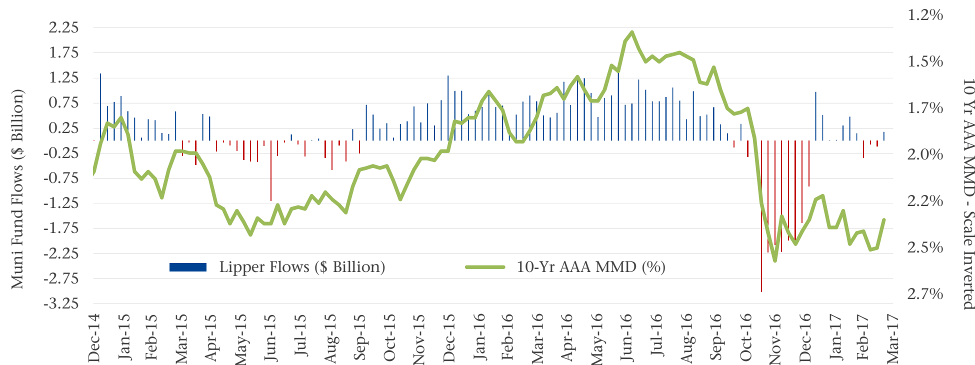
Figure 13 **Declining Inflation Expectations**



Source: FRED

Fed's five-year forward breakeven inflation rate, derived from TIPS and regular Treasury yields, has reached 2.0% on expectations of stronger economic growth.

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



Source: Lipper

Muni fund flows have oscillated between positive and negative territory in the last few weeks.

Loop Capital Markets Upcoming Negotiated Calendar

Date	Par Amount ($ mil)	Issue	Loop Capital's Role
3/28/17	750.0	State of Connecticut, General Obligation Bonds Series 2017 A & B	Co-Manager
3/28/17	100.0	Metropolitan Transportation Authority, Transportation Revenue LIBOR Floating Rate Tender Notes	Special Co-Remarketing Agent
3/30/17	618.8	Golden State Tobacco Securitization Corporation Tobacco Settlement Bonds	Co-Manager
4/4/17	58.1	State of Colorado, Colorado Department of Transportation COPs, Series 2017	Co-Manager
4/4-5/17	475.0	NYS EFC State Clean Water and Drinking Water Revolving Funds Bonds (Taxable)	Co-Senior Manager
4/5/17	300.0	City of Philadelphia Water and Wastewater Bonds Series 2017	Co-Senior Manager

Is the widespread reporting of "fake news" yet another example of... "fake news"?

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