J.P.Morgan

Peter DeGroot[AC] (1-212) 834-7293
Karthik Narayan (1-212) 834-3051
Drew Henriques, CFA (212) 834-5674
J.P. Morgan Securities LLC

Municipals

- **This week, municipal high-grade yields increased 2bps, 4bps, 5bps and 4bps in the 2yr, 5yr, 10yr and 30yr spots, respectively**
- **Municipal high-grade bonds outperformed Treasuries by 9bps, 8bps, and 2bps in the 2yr, 5yr, and 10yr spots, respectively, and underperformed Treasuries by 2bps in the 30yr spot**
- **Next week's anticipated $9.8bn in primary volume is above the YTD non-holiday average weekly issuance ($5.7bn) and the trailing 3yr average of $9.3bn for the first non-holiday week of November**
- **For the period ending 10/29/2014, municipal bond funds indicated inflows of $37mn, maintaining YTD aggregate inflows at $15bn**
- **Investors are advised to keep an eye on bidwanted and trading patterns, as the market has turned more volatile**
- **Trading volume does not show a strong linear relationship with fund flows, primary market issuance, or ratios**
- **Federal bankruptcy Judge Christopher Klein approved Stockton's plan to exit bankruptcy, effectively imposing steep cuts to the city's unsecured creditors without impairing the pension benefits managed by CalPERS**
- **We believe Judge Klein's earlier statements regarding the possible impairment of pension contracts in bankruptcy may reflect a positive development for local governments in California with respect to negotiations with creditors going forward**
- **We believe the 2014 Congressional elections have important implications for the municipal market. While we expect continued rhetoric and discussion surrounding tax reform, we estimate a low likelihood of a marginalization of the municipal tax exemption given a low probability for passage of a comprehensive tax reform package in the new Congress given a large partisan divide on individual tax reform**
- **The upcoming November elections bring about various state initiatives that will shape public policy with 39 gubernatorial elections (36 states/3 territories) in addition to key state ballot measures including 11 tax revenue initiatives, 7 bond issuance authorizations, 5 transportation funding enhancements, and 3 potential changes to state financial governance**

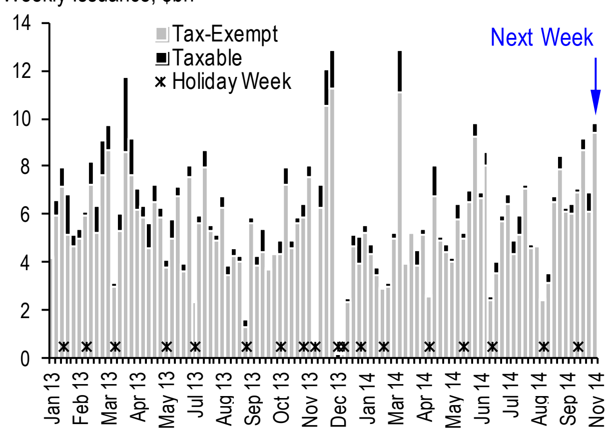
Exhibit 1: This week municipal HG yields outperformed Treasuries in the 2yr, 5yr, and 10yr spots

Sector	HG Municipal Yields		Treasury Yields		HG Muni/Tsy Ratio	
	Current (%)	1wk chg (bps)	Current (%)	1wk chg (bps)	Ratio (%)	change (% pts)
2yr	0.36	2	0.50	11	72	-15
5yr	1.12	4	1.61	12	69	-3
10yr	2.07	5	2.33	7	89	0
30yr	3.01	4	3.06	2	98	1

Source: Thomson Reuters, J.P. Morgan.

Exhibit 2: We expect $9.8bn in long-term issuance next week

Weekly Issuance, $bn



Source: IPREO, Bloomberg

Long dated municipals linger at cheaper levels ahead of higher near term supply and better year-end technicals

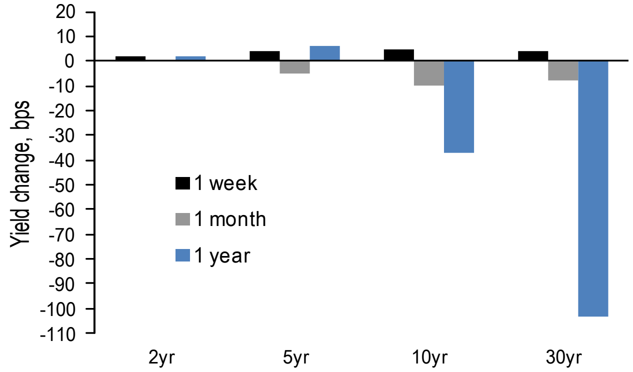
This week, the municipal curve steepened significantly relative to U.S. Treasuries. High grade municipal yields in the 2yr and 5yr spots on the curve rose by 2bps and 4bps versus an 11bps and 12bps increase in yields for the 2yr and 5yr portion of the Treasury market, respectively (Exhibit 1).

This document is being provided for the exclusive use of BRIAN FAGAN at MACKAY SHIELDS LLC (AS AGT).

Peter DeGroot[AC] (1-212) 834-7293
Karthik Narayan (1-212) 834-3051
Drew Henriques, CFA (212) 834-5674
J.P. Morgan Securities LLC

Markets at a glance

30yr HG yields have decreased by 103bps over the past year



Municipals appear fair value versus Treasury across the curve based on a 3m and 12m horizon

AAA tax-exempt yield / Treasury yield (%)

	Last	Min	Max	Mean	St. Dev.	Z-score 3mo	Z-score 12mo
2yr	75.8	56.5	108.0	70.1	12.5	0.5	-0.4
5yr	69.7	64.1	76.3	69.2	3.6	0.1	-0.7
10yr	88.5	85.0	91.5	88.1	1.4	0.3	-0.5
30yr	98.2	95.0	100.4	97.5	1.4	0.5	-0.8

values over last 3 months displayed, as of 10/30/2014, Z-Score +/- 1.5 Cheap / Rich

AA corporate yield - AA tax-exempt yield (bp)

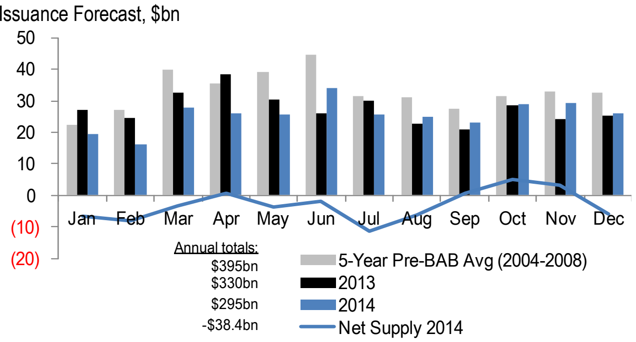
	Last	Min	Max	Mean	St. Dev.	Z-score 3mo	Z-score 12mo
3-5yr	84.1	69.6	102.5	86.6	8.8	-0.3	0.7
5-7yr	99.6	87.4	111.0	98.0	6.3	0.2	0.6
7-10yr	89.3	80.4	98.2	88.9	4.9	0.1	0.5
25yr	99.2	77.6	111.3	93.4	8.9	0.7	**1.6**

values over last 3 months displayed, as of 10/30/2014, Z-Score +/- 1.5 Rich / Cheap

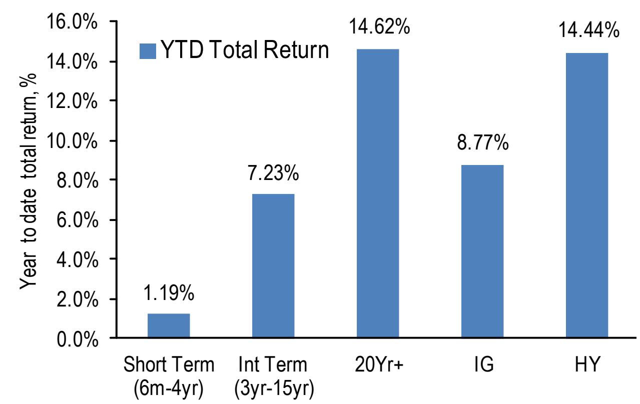
indicates rich   indicates cheap

We approximate gross issuance to total between $305bn -$315bn for 2014, with net supply close to -$41.5bn

Issuance Forecast, $bn



The S&P HY municipal index has returned 14.44% YTD



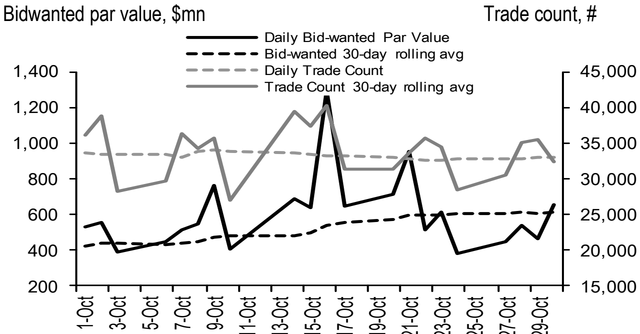
We expect 10yr HG municipal yields to reach 2.10% by year-end

Yields, %

Treasury	10/31/2014	4Q14 Forecast	1Q15 Forecast	2Q15 Forecast	3Q15 Forcast
2yr	**0.50**	0.65	0.90	1.10	1.40
5yr	**1.62**	1.80	2.05	2.25	2.50
10yr	**2.34**	2.45	2.60	2.75	2.95
30yr	**3.08**	3.15	3.30	3.40	3.50
AAA Tax-exempt					
2yr	**0.36**	0.54	0.74	0.96	1.25
5yr	**1.12**	1.36	1.66	1.92	2.13
10yr	**2.07**	2.10	2.19	2.34	2.54
30yr	**3.01**	3.01	3.15	3.21	3.34

Municipals cheapened versus Treasury's last week as the bidwanted volume trended higher as trading volume moved lower

Bidwanted par value, $mn   Trade count, #



Source: Thomson Reuters, Bloomberg, S&P, J.P. Morgan

This document is being provided for the exclusive use of BRIAN FAGAN at MACKAY SHIELDS LLC (AS AGT).

Peter DeGroot[AC] (1-212) 834-7293
Karthik Narayan (1-212) 834-3051
Drew Henriques, CFA (212) 834-5674
J.P. Morgan Securities LLC

We expect the 2yr to 5yr area of the municipal curve to gradually rise in sympathy with Treasuries.

The municipal market's performance was mixed in the longer portion of the curve. High grade yields in10yr and 30yr spots rose by 5bps, and 4bps, respectively, while Treasury yields rose by 7bps and 2bps, respectively.

Long-term municipal market supply was manageable, at $6.8bn this week, in line with expectations. For the full month of October, we expect approximately $35.5bn in gross issuance, which is 23% higher than 2013 October issuance ($28.8), but lower than the average over the past five years ($37.8bn). The increase in October 2014 issuance is largely due to an increase in refunding volume. **The refunding volume this month totaled $13.3bn or 80% above the refunding volume in October 2013 ($7.3bn)**. This month's refunding volume is also approximately 24% higher than the average refunding issuance in October over the past five years. In contrast, the new money issuance this month saw less of an uptick. The new money volume in October 2014 ($17.7bn) was only 6% above the new money volume in October 2013 and 10% lower than the average new money volume in October over the past five years.

Year to date, issuance has totaled $265.5bn, including private placements. This level of issuance is 6% lower than the issuance at the same point last year ($282.2bn) and 12% lower than the average Jan-Oct issuance over the past five years ($301.6bn).

Next week's anticipated $9.8bn in primary volume is above the YTD non-holiday average weekly issuance ($5.7bn) and the trailing 3yr average of $9.3bn, for the first non-holiday week of November (Exhibit 2).

Three of the larger deals next week are the $850mn New York City Transitional Finance Authority (Aa1/AAA/AAA) deal, the $844mn Montgomery County, MD(Aaa/AAA/AAA) Competitive deal, and the approximately$500mn North Texas Tollway Authority 1st Tier (A2/A-/NR) and 2nd Tier (A3/BBB+/NR) Revenue bond deal.

Exhibit 3: Municipal bond funds reported $37mn of inflows for the period ending 10/29/2014

	Fund flows			Fund Assets	
Type of funds	Actual	YTD Total	4-wk. avg.	Actual	4-wk. avg.
All term muni funds	37	15,004	492	569,800	570,096
New York	-22	-1,277	-8	30,437	30,480
California	19	1,355	88	56,617	56,597
National funds	114	19,623	476	412,851	412,980
High Yield	21	7,640	154	65,864	65,825
Intermediate	97	10,410	239	142,371	142,297
Long Term	-13	581	245	311,089	311,316
Tax-exempt money market	-2,744	-15,720	-644	241,134	251,383
Taxable money market	4,561	-62,209	2,449	2,120,316	2,222,899
Taxable Fixed Income	6,409	113,016	2,692	4,103,616	4,098,704
Equity	8,774	165,293	135	8,655,748	8,596,821

Source: Lipper US Fund Flows, J.P. Morgan

The New York Transitional Finance Authority last issued Tax Secured Revenue Bonds on 08/01/2014 (5% coupon, 2024 maturity, Non-Callable, 64971WFW5), which are currently evaluated at a 2.21% yield or 17bps spread to the high grade benchmark. Montgomery County, Maryland last issued General Obligation bonds 11/26/2013 and its tax-exempt bonds (5% coupon, 2024 maturity, Nov 2023 Par Call, 6133402L1) are currently evaluated at a 2.05% yield, which is right on top of the high grade scale. The third largest deal next week is the approximately $500mn North Texas Tollway Authority 1st Tier (A2/A-/NR) and 2nd Tier (A3/BBB+/NR) Revenue deal. North Texas Tollway Authority last issued 1st Tier revenue bonds 10/04/2012 and its tax-exempt bonds (5% coupon, 2028 maturity, Jan 2022 Par Call, 662585WKL9) are currently evaluated at a 2.98% yield or 60bps spread to the high grade scale.

Year-to-date, municipal bond funds have received $15bn of net inflows, following last week's $37mn of inflows

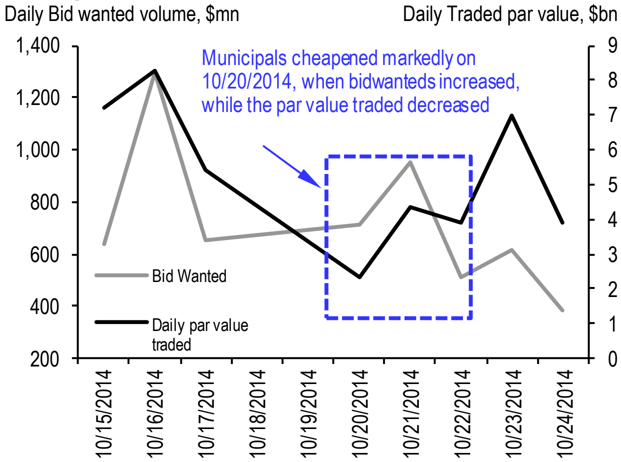
For the period ending 10/29/2014, municipal bond funds indicated inflows of $37mn, maintaining YTD aggregate inflows at $15bn (Exhibit 3).

Among the larger fund sub-categories, Intermediate funds and High Yield funds received $97mn and $21mn of inflows, respectively, while Long Term funds experienced $13mn of outflows. All of the flows for the period were from weekly reporting municipal bond funds.

This document is being provided for the exclusive use of BRIAN FAGAN at MACKAY SHIELDS LLC (AS AGT).

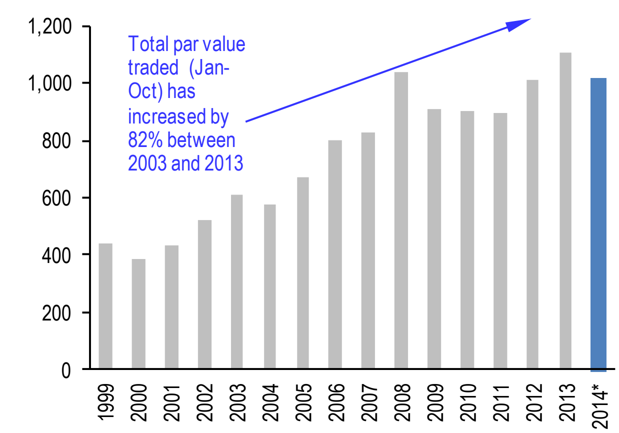
Peter DeGroot[AC] (1-212) 834-7293
Karthik Narayan (1-212) 834-3051
Drew Henriques, CFA (212) 834-5674
J.P. Morgan Securities LLC

Exhibit 4: The municipal market experienced a sharp sell off between 10/16/2014 to 10/22/2014, as bidwanteds increased with respect to the size of trading activity



Source: MSRB, J.P. Morgan.

Exhibit 5: Total par value of trades (Jan-Oct) in the municipal market has increased by 82% between 2003 and 2013



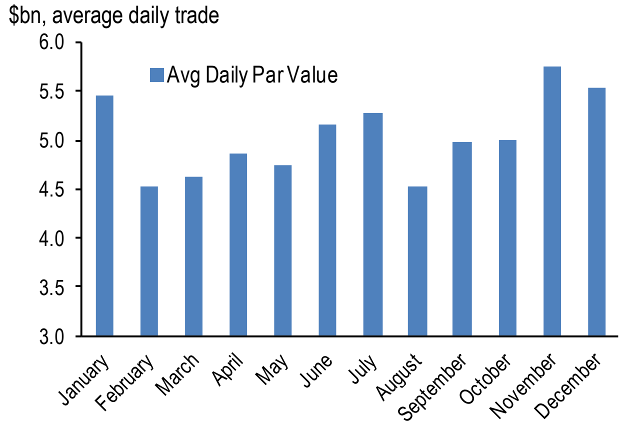
Source: MSRB, J.P. Morgan. Fixed and zero coupon bonds only. Trades of par value $250,000 or higher only. Volumes reflect Jan-Oct activity.

California specific municipal funds received $19mn of net new cash and New York specific funds recorded outflows of $22mn.

For the period, Tax-exempt money market funds reported outflows of $2.7bn and Taxable money market funds reported net inflows of $4.6bn.

Taxable Fixed Income funds reported inflows of $6.4bn and show YTD total inflows of $113.0bn. Equity funds (US & Global) indicated $8.8bn of inflow, taking their YTD total receipts to $165.3bn.

Exhibit 6: The average daily dollar par value traded in November is the highest of any months in the year, after eliminating holiday weeks



Source: MSRB, J.P. Morgan. Fixed and zero coupon bonds only. Trades of par value $250,000 or higher only., As of 10/24/2014. Based data from 2011

Investors are advised to keep an eye on bidwanted and trading patterns, in light of the recent uptick in market volatility

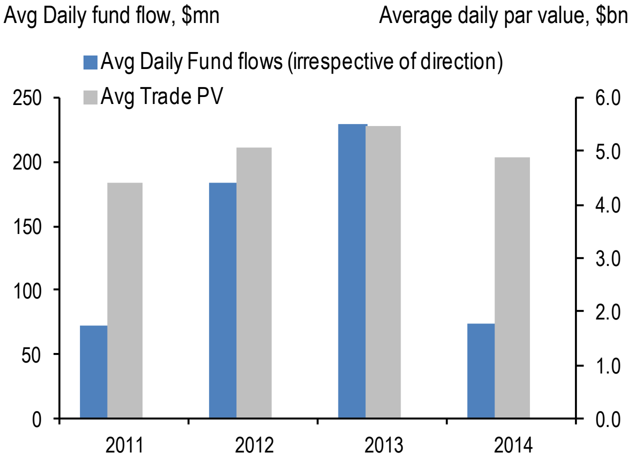
Treasury market volatility spiked during the week beginning 10/13/2014. In that week, 10yr Treasury yields declined by 9bps with significant intra-day volatility. The volatility in the ***Treasury market***, measured as the standard deviation of 5-day changes in yields, spiked to 5.05 stddev, the highest level since December 2013. During the same week, the volatility of the ***10yr high-grade municipal yield*** also moved higher, **reaching 4.5 stddev, the highest since July 2013.**

In the few trading days following the sharp decline in yields and increased volatility, the 10yr Muni/Tsy ratio rose by 7pts. **The sharp selloff appeared to be precipitated by the steep decline in yields and was manifest by a notable spike in bidwanted volume**, which rose to its highest point in over a year. Importantly, while the par value of bidwanteds was

This document is being provided for the exclusive use of BRIAN FAGAN at MACKAY SHIELDS LLC (AS AGT).

Peter DeGroot[AC] (1-212) 834-7293
Karthik Narayan (1-212) 834-3051
Drew Henriques, CFA (212) 834-5674
J.P. Morgan Securities LLC

Exhibit 7: The relationship between fund flows and trading activity has been inconsistent



Source: J.P. Morgan. Inflation adjustments held constant (3%), as cigarette consumption is assumed to decline at the stated rates

accelerating, the volume of transactions was falling (Exhibit 4). Following the inevitable adjustment in municipal market relative value (10yr ratios rose by 7pts), bidwanted volume fell and trading levels increased to more average levels. Over this period, 10yr muni/Tsy ratios fell by 3.5pts.

As we near the end of the year, we examine liquidity in November and December, when holidays limit the number of trading days as well as desk staffing, potentially exacerbating market volatility.

Trading volume in the municipal market has increased over the past few years

In order to provide investors with a clearer picture of secondary market activity/liquidity in November and December, we reviewed trading volume from Jan 2011 to date. **As shown in Exhibit 5, the total par value of debt traded in the municipal market, between January and October has increased by 82% from $607bn in 2003, to $1.1tr in 2013.** Year over year, thus far in 2014, the par value of bonds traded has fallen by $84bn or 7.5% to $1.02tn compared to the corresponding period in 2013.

The data shows that while the total trading volume in November and December ranked 11th and 12th, respectively, **the average trading volume in November and December ranked 1st and 2nd, respectively, when holiday weeks were excluded (Exhibit 6).**

To define the average daily trading volume by month, we aggregate trading activity during *non-holiday* weeks from 2011 to 2014. Based on non-holiday weeks, we see that the average par value of daily trades has been $4.9bn. **The months of November, December, and January show the highest daily trading activity, for non-holiday weeks, by par value of trades at $5.8bn, $5.5bn and $5.4bn, respectively**. This indicates that daily trading activity is elevated during non-holiday weeks during November and December.

Trading volume does not show a strong linear relationship with fund flows, primary market issuance, or muni/Tsy ratios

To explore the drivers of secondary market activity we look at the level of trading activity in comparison to municipal bond fund flows, primary market activity, and 10yr Municipal/Treasury ratios. In the following section, we compare average daily par value of transaction (trades) to fund flows, issuance, and ratios.

Based on data from 2011, the linear relationship between fund flows and the average daily par value traded is very weak. Regressing daily average fund flows, from 2011 to 2014, versus 5-day rolling average trade counts, produces an RSQ of only 4%.

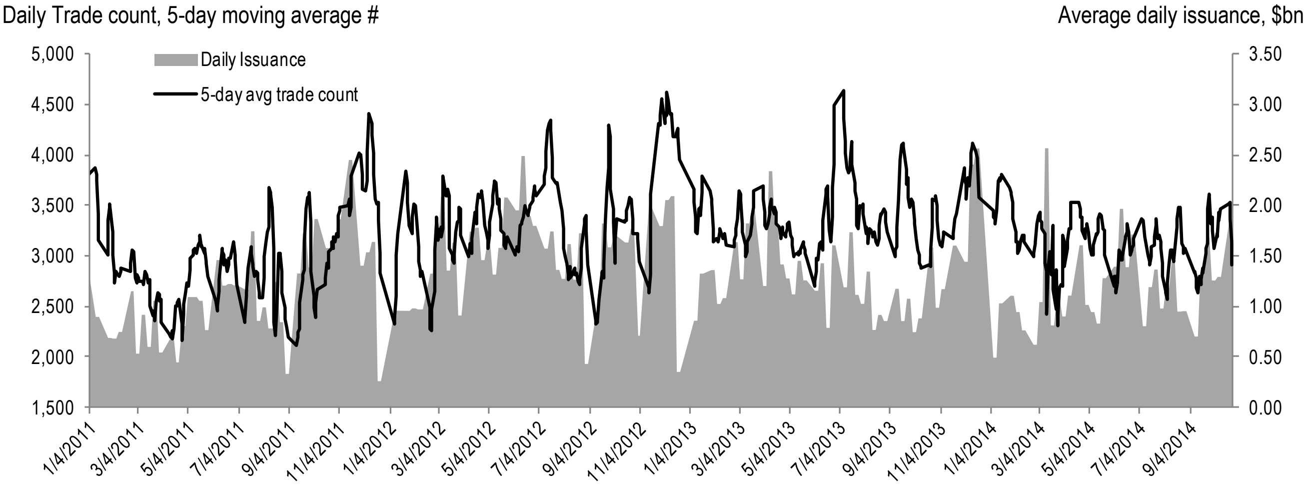
The level of fund flows seems to influence the scale of trading activity, but this relationship has also been inconsistent. The average daily fund flows in 2012 and 2013 were of larger magnitude at $183.8mn and -$229.9mn, and coincided with higher average daily trade values, of $5.1bn and $5.4bn, respectively. However, this relationship brakes down in 2011 and 2014. The average fund flows in 2011, and YTD 2014 have been similar at -$71.7mn, and $74.6mn, respectively, but the average daily trade value in 2011 was only $4.3bn, compared to an average daily trade volume of $4.9bn in 2014 (Exhibit 7).

This document is being provided for the exclusive use of BRIAN FAGAN at MACKAY SHIELDS LLC (AS AGT).

Peter DeGroot[AC] (1-212) 834-7293
Karthik Narayan (1-212) 834-3051
Drew Henriques, CFA (212) 834-5674
J.P. Morgan Securities LLC

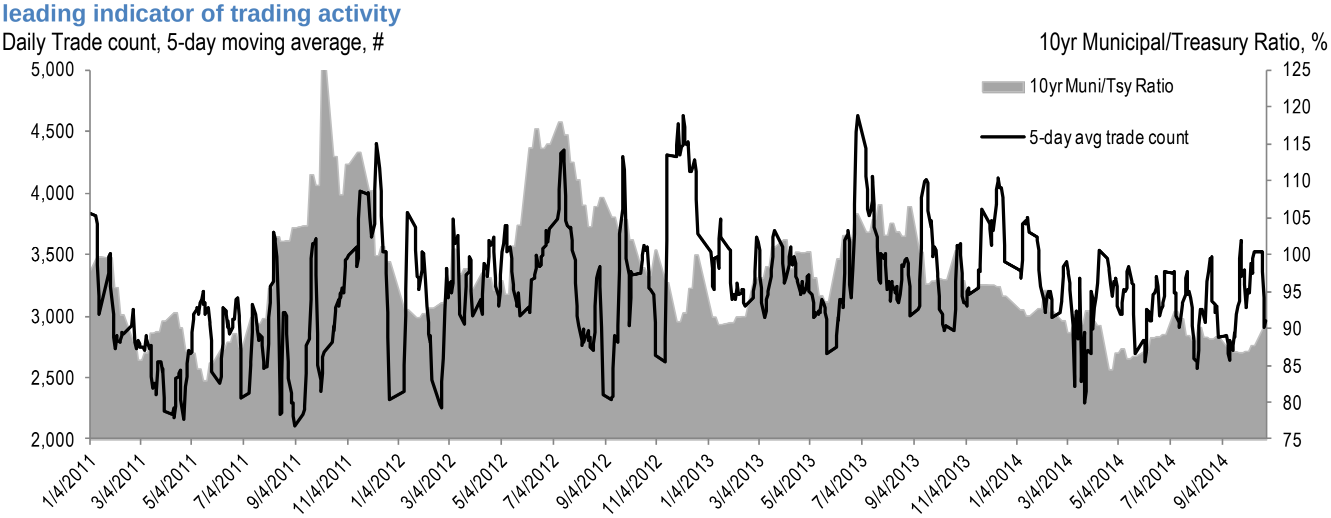
J.P.Morgan

Exhibit 8: The peaks in trading activity mostly coincide with the peaks in trading, but has only a 0.32% correlation



Source: J.P. Morgan. Both inflation and cigarette consumptions are changed as shown

Exhibit 9: Cheaper valuations in municipals, as indicated by 10yr municipal/Treasury ratios have some value as a leading indicator of trading activity



Source: J.P. Morgan. Both inflation and cigarette consumptions are changed as shown

<u>Changes in primary market activity exhibit a modest correlation with changes in secondary market trading</u>

In Exhibit 8, we plot the average daily trade count in the municipal secondary market versus daily issuance volume. **From the chart, it is clear that changes in primary market issuance have a direct influence on trading activity. The correlation between average daily tax-exempt issuance volume and the five-day average trade count is better than fund flows but still weak at 32%**.

The level of issuance is also inconsistent with the level of trading activity, as the average daily par value of bonds traded in 2014 has declined versus 2013, which is not entirely surprising given the decline in issuance. Interestingly, even as average daily issuance declined in

This document is being provided for the exclusive use of BRIAN FAGAN at MACKAY SHIELDS LLC (AS AGT).

Peter DeGroot[AC] (1-212) 834-7293
Karthik Narayan (1-212) 834-3051
Drew Henriques, CFA (212) 834-5674
J.P. Morgan Securities LLC

2013 as compared to 2012, the average weekly par value traded increased.

Ratios may be a leading indicator for trading activity

The third driver of trading activity we explore is the 10yr muni/Tsy ratio. In Exhibit 9, we compare the 10yr HG muni/Tsy ratio to the number of trades in the municipal secondary market. **The correlation between the number of trades and the 10yr Muni/Treasury ratio is 51%, given a 20-day lag, indicating that ratios may act as a signal for municipal trading activity.** But the RSQ for a regression between ratios (lagged by 20-days) and trading activity is very low at 10%.

As with the individual regression, a multiple-linear regression which takes into account all of these factors, has very low RSQ of just 7%, when considering data from 2011 to 2014. That said, the co-efficients of the regression do provide interesting insight. **The co-efficients for issuance and 10yr Muni/Tsy ratio are positive, indicating trading activity increases as the level of issuance is higher of municipals cheapen versus Treasuries. In contrast the co-efficient for fund flows is negative, indicating there is larger propensity to sell municipals during fund outflows**.

Stockton Bankruptcy Exit Plan approved with pension benefits intact, despite the ability to impair pension contracts

On October 30th, federal bankruptcy Judge Christopher Klein approval Stockton's plan to exit bankruptcy effectively imposing steep cuts to the city's unsecured creditors without impairing the pension benefits managed by CalPERS. This follows Judge Klein's July 8th ruling that pensions can be impaired in Chapter 9 bankruptcy proceedings indicating that pension contracts, specifically managed by CalPERS, can be rejected and are no different from other contracts that local governments can modified under the federal bankruptcy code.

Judge Klein cited the pensioners as being the real creditors with CalPERS acting solely as agent and administrator of the benefits.

- "I don't know that, in that sense, CalPERS really is correct. In the case, certainly there are reasons why it qualifies as a party of interest, but **it's maybe a debatable point whether they're really a creditor. Certainly the real party of interest with respect to any given pension is the individual who is going to get that pension and nobody else."**

As a result, he further suggests in the July 8th hearing that the CalPERS contract and lien is not protected under Chapter 9.

- **"Now, one of the implications is that I might very well conclude that, in fact, the CalPERS contract could be rejected, that I might conclude that the $1.5 billion lien is not enforceable"**
- **"**it might be helpful if the City provided somewhat more focused analysis on why I should be confirming this plan in its current form if one assumes that what I've been hearing about CalPERS -- **about the viability of the CalPERS contract and the lien and all that is actually not accurate"**

Despite these suggestions, the Judge stated that the City's plan of adjustment never sought to impair pension contracts and decided against rejecting the plan for pension contracts noting that retirees were the real creditors impacted in the ruling given the agreement to give up retiree health care benefits.

As we detailed in our report on 06/06/2014, the City approved its plan of adjustment in October 2013 to emerge from Chapter 9 with various recovery rates for creditors depending on their structure and security type (Exhibit 10). Stockton's outstanding bonds include lease-backed and pension obligation bonds, which are insured and cover approximately 90% of the city's outstanding debt. The leases are subject to legislative appropriations with recovery rates ranging from 1% to 100% depending on the essentiality of the underlying assets**. The City's 2007 Pension Obligation Bonds, which are backed by an "absolute and unconditional obligation of the City", would receive approximately**

This document is being provided for the exclusive use of BRIAN FAGAN at MACKAY SHIELDS LLC (AS AGT).

Peter DeGroot[AC] (1-212) 834-7293
Karthik Narayan (1-212) 834-3051
Drew Henriques, CFA (212) 834-5674
J.P. Morgan Securities LLC

Exhibit 10: Stockton proposed recovery plan

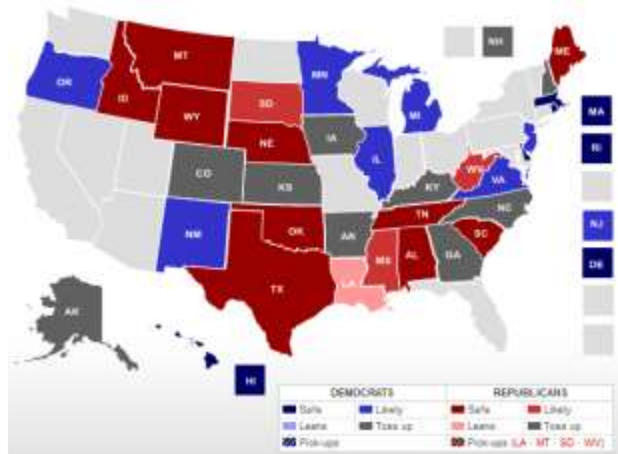
Debt Issue	Underlying Asset	Amt Outstanding ($000)	Insured	Recovery as % of Oustanding Debt
Series 2006 Lease Revenue Bonds	Administrative buildings, parking and city repayment promise	11,270	NPFG	100%
Series 2003A and B Certificates of Participation	Fire, police and library properties and city repayment promise	12,265	Ambac	100%
Series 2004 RDA	Stockton Arena, tax increment and city repayment promise	44,615	NPFG	95%
Series 2004 Lease Revenue Bonds	Larkign garages and city repayment promise	38,870	NPFG	77%
Pension Obligation Bonds (Series 2007A and B)	Unconditional repayment promise	121,770	AGM	50%-55%
VRDB Lease Revenue Bonds (Series 2007A and B)	Office building and city repayment promise	40,035	AGM	Uncertain*
Series 2009A Capital Improvement Lease Revenue Bonds	Golf course, park and city repayment promise	34,555	None	1%**

Source: Moody's
Note:*City will transfer office building to Assured Guaranty, which can sell it. In exchange, Assured will extinguish the city's obligation to repay Liquidation value uncertain.
**Judge Klein valued the collateral at $4mn, which could raise its recovery rate from its proposed 1% under the plan. Possibly higher if bondholder is able to run golf courses and park to profit

half of their claim, while retirees and current employees would receive their full pension claim. As stated in Chapter 9 bankruptcy code, the bankruptcy plan must be in the "best interests" of all creditors and "fair and equitable" to all creditors. **Interestingly, Judge Klein additionally overruled objections from investors that they were being treated unfairly in the city's bankruptcy plan.**

While the Stockton ruling represents a negative development for investors, we believe Judge Klein's statements regarding the possible impairment of pension contracts in bankruptcy may reflect a positive development for local governments in California with respect to negotiations with creditors going forward.

Exhibit 11: The upcoming 2014 elections may bring about a change in the Senate with Republicans expected to pick up seats



Source: RealClearPolitics.com

We believe California local governments will now have more negotiating leverage with labor unions and pensioners, incentivizing all parties to negotiate and avoid potential deeper cuts or the elimination of benefits in bankruptcy.

Detroit Confirmation Hearing Set for November

Next week, U.S. Bankruptcy Judge Steven Rhodes is expected to rule on the validity of Detroit's confirmation plan. We will continue to monitor the new developments in Detroit given its potential implications for the broader municipal market.

Next week's Federal Elections may bring about changes to the political landscape although we do not expect major tax reform to follow

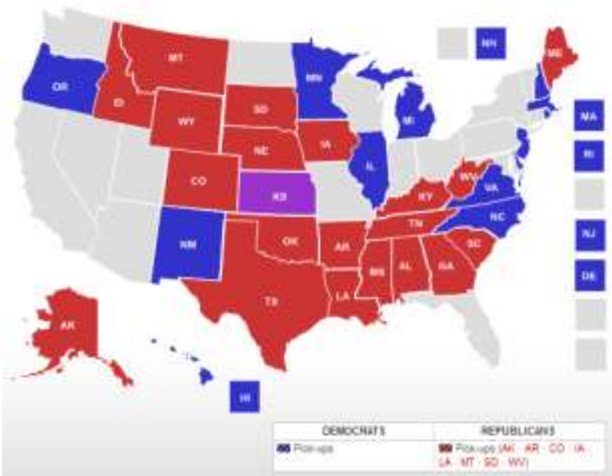
In this publication, we provide an update to the House, Senate, and Governor races and highlight key state ballot measures expected to be tabled next week on Election Day (November 4th, 2014).

The upcoming 2014 elections include key races in the U.S. House and Senate in addition to gubernatorial races across the nation. Given the significant number of seats

This document is being provided for the exclusive use of BRIAN FAGAN at MACKAY SHIELDS LLC (AS AGT).

Peter DeGroot[AC] (1-212) 834-7293
Karthik Narayan (1-212) 834-3051
Drew Henriques, CFA (212) 834-5674
J.P. Morgan Securities LLC

Exhibit 12: Senate Race (No Toss Ups)
Republicans 52/Democrats 47/1 Independent



Source: RealClearPolitics.com

up for election and idiosyncratic nature of the races in question, we believe the 2014 elections have the potential to bring about changes in the House and Senate. That being said, **we estimate a low likelihood of a marginalization of the municipal tax exemption given a low probability for passage of a comprehensive tax reform package. We believe major reform coming out of the new Congress in unlikely given the large partisan divide on individual tax reform. Additionally, we expect a continuation of divided government and the kind of political gridlock that we have seen over the last two years, making it difficult to pass major legislative initiatives.**

For purposes of this publication we utilize data and estimates aggregated by RealClearPolitics.com, which is a political news and polling data aggregator for presidential and congressional races. This source is widely viewed as politically agnostic.

Federal elections

The current make up in Congress remains divided with Republicans maintaining a comfortable majority (233 Republicans/199 Democrats/3 Vacancies) in the House of Representatives and Democrats controlling the Senate (53 Democrats plus 2 independents that currently caucus/45 Republicans).

Senate

According to RealClearPolitics.com, the Republicans currently lead the Senate race with 46 seats expected to go to the Republicans including 42 that they classify as Safe or Not Up for Reelection, 3 Likely GOP, and 1 seat Leaning GOP (Landrieu Dem-LA). Of the 3 Seats Likely GOP, 2 of the seats are expected to be picked up by Republicans in South Dakota and West Virginia (Exhibit 11). RealClearPolitics.com estimates that Democrats have secured 45 seats, including 38 that are Safe or Not Up for Reelection and 7 of which are Likely expected to stay Democratic.

As we highlighted in our publication on 09/05/2014, the Republicans need to pick up a net 6 seats in the Senate to achieve a simple majority. Importantly, there are 9 seats that are estimated to be "Toss Up's". Of the 9 seats expected to be toss ups, 7 seats are currently Democratic (AK, AR, CO, NH, NC) of which 2 are now open (IA & GA). 2 of the toss up seats (KS & KY) are currently Republican. The large majority of Democratic seats designated as a Toss Up by RealClearPolitics.com leaves Republicans with the potential to pick up more seats and possibly secure the 6 votes needed for a simple majority in the Senate.

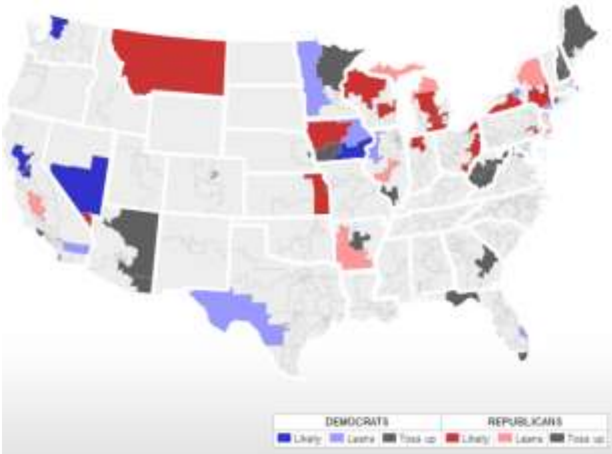
In Exhibit 12, we highlight the Senate map with the Toss Up states going to the current candidate in the lead based on the Real Clear Politics (RCP) polling average. **Based on current RCP polling data, Republicans would pick up a net 7 seats and win the majority with a total of 52 seats, specifically picking up seats in AK, AR, CO, IA, LA, MT, SD, and WV.** The sole seat that Republicans would lose is in Kansas, currently held by Republican Pat Roberts. The race is expected to be won by Independent Greg Orman, although we note the race remains tight with Orman holding a modest 0.6pt lead over Pat Roberts based on RCP polling average.

Despite the potential shift in majority, Republicans are not expected to be able to push their agenda without help from Democrats. Republicans would still need a three fifths majority (60R/40D) to invoke cloture and block a filibuster, and a two thirds majority (67R/33D) to override a veto, amend the Constitution, remove a federal official, or ratify treaties.

This document is being provided for the exclusive use of BRIAN FAGAN at MACKAY SHIELDS LLC (AS AGT).

Peter DeGroot[AC] (1-212) 834-7293
Karthik Narayan (1-212) 834-3051
Drew Henriques, CFA (212) 834-5674
J.P. Morgan Securities LLC

Exhibit 13: Republicans are expected to maintain a majority in the House of Representatives



Source: RealClearPolitics.com

That being said, Republicans would control the legislative agenda if they gain control of the Senate, which is significant given that proposed legislation tends to drive the broader political dialogue.

<u>House of Representatives</u>

In the U.S House of Representatives, the Republicans currently maintain a comfortable majority with 233 Republicans to 199 Democrats and 3 Vacancies. According to RealClearPolitics.com, the Republicans currently lead the House race with 228 seats expected to go to the Republicans including 205 that are now Safe or Not Up for Reelection, 17 Likely GOP, and 6 seats Leaning GOP. Of the 17 Seats Likely GOP, 6 of the seats are open and are expected to be picked up by Republicans (AR 4th, NJ 3rd, MI 4th, MI 8th, PA 6th, WI 6th, and the Montana At-Large District). Of the 6 seats Leaning GOP, one Democratic seat (NY 21st) is expected to be picked up by Republicans, according to RealClearPolitics.com.

RealClearPolitics.com estimates that **Democrats have secured 184 seats, including 163 that are Safe or Not Up for Reelection, 8 Likely Democratic, and 13 seats Leaning Democratic.** Of the 13 Seats Leaning Democratic, 2 Republican seats are expected to be picked up by Democrats (CA 31st District & NY 11th District), of which 1 is open (CA 31), according to RealClearPolitics.com.

Importantly, this would leave 23 seats that are estimated to be "Toss Up's", which is up from the 17 "Toss Ups" noted in our last publication on <u>09/05/2014</u> (Exhibit 13). Of the 23 seats expected to be toss ups, 16 seats are currently Democratic with 7 seats being Republicans. Of the 23 seats, 7 are open including 3 Democratic seats and 4 Republican seats.

With only 218 seats needed to secure a simple majority, it is likely that Republicans will maintain a majority in the House, but also unlikely they will gain enough seats to secure a two thirds majority, which would require a total of 292 Republican seats.

While a simple majority would be enough to pass a bill or impeach a federal official it would not be sufficient to override a veto or amend the Constitution, two acts which require a two thirds majority. Additionally, it is expected that Republicans would be below the three fifths majority needed to invoke cloture and block a filibusters in the Senate. It is this lack of a supermajority by either party in both houses that leads us to believe that neither party will be able to force through their agenda and pass major legislative changes. **We would expect Republicans to pursue a more modest approach, focusing on policy that has an increased likelihood of bipartisan support.** According to the Wall Street Journal, top goals for Republicans may include approving the Keystone XL pipeline, passing accelerated rules for overseas trade agreements, speeding up federal reviews of natural-gas exports, and repealing the 2010 health law's medical-device tax.

That being said, in our publication <u>09/05/2014</u>, we highlighted the House Ways and Means Committee Chairman David Camp's (R-MI) "Tax Reform Act of 2014" draft legislation introduced on February 26th, which we believe may provide a possible reference point for Republican views on tax reform. The Camp proposal would make extensive changes to the tax code, including aspects that affect the municipal market. Among other notable municipal centric provisions, the proposal eliminates the tax-exemption for private activity and advanced refunding bonds, effectively establishes a 10% tax on 'tax-exempt' income for upper income filers,

This document is being provided for the exclusive use of BRIAN FAGAN at MACKAY SHIELDS LLC (AS AGT).

Peter DeGroot[AC] (1-212) 834-7293
Karthik Narayan (1-212) 834-3051
Drew Henriques, CFA (212) 834-5674
J.P. Morgan Securities LLC

Exhibit 14: "Jobs For America" Tax Reform points

Senate Republicans Jobs for America Plan
Reform Tax Code to Spur Economic Growth
- Simplify and Reduce Business and Individual Tax Rates
- Make the Research & Development Tax Credit Permanent
- Extend and Make Permanent the Small Business Investment Tax Incentive
- Keep Lower Taxes on Capital Gains and Dividends
- Repeal the Death Tax

Source: "Jobs for America - *The Senate Republican Plan of Creating Jobs and Prosperity*"

decreases the incentive for property and casualty investors to hold municipals, repeals the small issuer exemption, and does not grandfather existing municipal bond issuance. **While we believe the Camp proposal demonstrates possible bipartisan support for a marginalization of the tax benefits associated with "tax-exempt" bonds (recall the Obama Administration's call for a cap on the tax-exemption for upper wage earners), there has been little support in the current Congress for a the advancement of the Camp proposal in its current form.**

More recently, Republican Senator Rob Portman of Ohio released high level details regarding his "Jobs for America - The Senate Republican Plan for Creating Jobs and Prosperity" plan. His plan includes 7 key points addressing Health Care, Energy, Financial Governance measures, Regulatory Reform, Workforce development programs, Agriculture/Trade, and Tax Reform. In Exhibit 14, we highlight the main tax reform points expected in the proposal. Although does not speak specifically to the municipal tax deduction, his plan includes a simplification and reduction of business and individual tax rates.

- "High marginal tax rates discourage work, savings, and investment, and reduce incentives for businesses—small and large—to grow and invest. The U.S. can't be competitive with the highest business tax rate in the world. **We should reform both the individual and corporate tax systems in a comprehensive manner to provide lower rates with fewer deductions and credits** and transition towards a territorial system for international businesses. These changes would encourage growth and job creation. For example**, reducing corporate and individual tax rates to 25% would create millions of private-sector jobs and increase wages for American workers."**

Exhibit 15: In 2014, gubernatorial elections will be held in 36 states and 3 territories

Source: RealClearPolitics.com

Although the Portman proposal does not delve into specifics regarding tax reform for individuals, the plan is similar to Camp's original proposal to consolidate the existing tax structure into two brackets (10% and 25%). Please refer to our publication on 09/05/2014, for a detailed analysis of the key components of the Camp proposal and its potential implications for the municipal market.

While we expect there to be continued rhetoric and discussion surrounding tax reform, we believe there remains a low probability of a successful passage of extensive tax reform passage given the expected construct of Congress following the elections.

Key State Ballot Measures

The upcoming November elections bring about various state initiatives that will shape public policy including gubernatorial elections, bond issuance authorizations, transportation funding enhancements, and potential changes to state financial governance.

This document is being provided for the exclusive use of BRIAN FAGAN at MACKAY SHIELDS LLC (AS AGT).

Peter DeGroot[AC] (1-212) 834-7293
Karthik Narayan (1-212) 834-3051
Drew Henriques, CFA (212) 834-5674
J.P. Morgan Securities LLC

Exhibit 16: Governor Race (No Toss Ups) Republicans 28/Democrats 21/1 Independent

Source: RealClearPolitics.com

Governor Races

In 2014, gubernatorial elections will be held in 36 states and 3 territories (Exhibit 15). There are 30 incumbent governors eligible to run for reelection and 9 open races, which include incumbent governors who are term-limited, no longer eligible to seek reelection, or have announced they will not seek reelection**. Currently, Republicans maintain a majority holding 29 states and territories versus 21 for Democrats.**

According to RealClearPolitics.com, the Republicans have an estimated 22 states and territories, including 14 that are Safe or Not Up for Reelection, 6 Likely GOP, and 2 states Leaning GOP.

Of the 2 Seats Leaning GOP, 1 seat (Arkansas) is currently open with a previously Democratic incumbent and is expected to be picked up by a Republicans based on current polling averages. RealClearPolitics.com estimates that Democrats have an estimated 17 states and territories, including 9 that are Safe or Not Up for Reelection, 3 Likely Democratic, and 5 states Leaning Democratic. **Of the 3 Seats Likely Democratic, Pennsylvania remains the sole state with a Republican incumbent (Corbett) that may get picked up by Democrats.**

In contrast to the Senate and House races, the gubernatorial elections have a significant amount of Toss Up states, which can go either Republican or Democrat. **Of the 11 seats expected to be toss ups, 7 seats are currently Republican with the remaining 4 seats being Democratic, of which 1 is open (Massachusetts).**

In Exhibit 16, we highlight the Governor map with the Toss Up states going to the current candidate in the lead based on the Real Clear Politics (RCP) polling average. **Based on current polling data, Republicans would lose a net 1 seat, but maintain the majority with a total of 28 states to the Democrats 21. Notably, Republicans would pick up Massachusetts, Connecticut, and Arkansas, while Democrats would pick up Florida, Kansas, and Pennsylvania.** Based on RCP Polling averages, the Incumbent Republican (Sean Parnell) in Alaska is expected to lose to the Independent Bill Walker, although we note the race remains tight with Walker holding a modest 1.8pt lead over Seal Parnell based on the RCP polling average.

Notably, the RCP polling average has the Democratic party (Pat Quinn) holding on to Illinois, although the race remains very tight with Quinn maintaining a very tight 1pt lead over Republican candidate Bruce Rauner.

Investors should note that a potential shift in public policy arising from changes in governorship can have long-term credit implications as a result of changes in

Exhibit 17: Key State Tax Initiatives in 2014 Election

Key State Tax Ballot Initiatives 2014

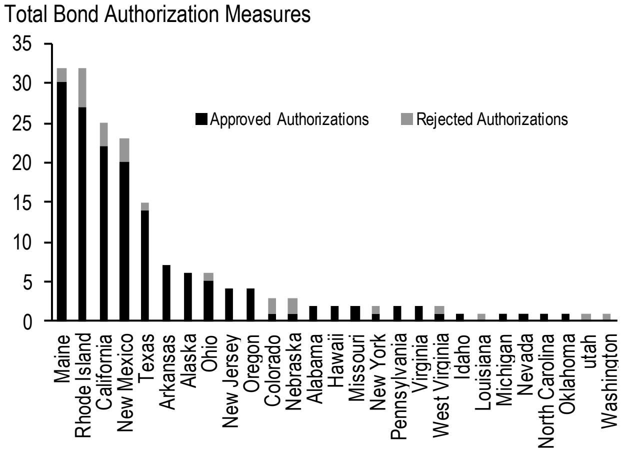
State	Initiative	Summary
Georgia	Amendment A	Cap the marginal income tax rate at its current level of 6% , effective January 1, 2015
Tennessee	Amendment 3	Prohibit the legislature from levying, authorizing, or permitting any state or local payroll or earned personal income tax
Nevada	Question 2	Amends Nevada Constitution to remove mining-severance tax cap of 5%
	Question 3	Imposes a 2% margins tax on businesses with revenues of more than $1mn
Illinois	Millionaire Tax Increase for Education Reform	Tax for Education Referendum would advise the legislature to increase the income tax by 3% on incomes greater than $1mn to provide additional revenue to schools
North Dakota	Measure 5	Upon voter approval, would redirect 5% of the State's oil extraction tax revenue to environmental conservation efforts

Source: Ballotpedia

This document is being provided for the exclusive use of BRIAN FAGAN at MACKAY SHIELDS LLC (AS AGT).

Peter DeGroot[AC] (1-212) 834-7293
Karthik Narayan (1-212) 834-3051
Drew Henriques, CFA (212) 834-5674
J.P. Morgan Securities LLC

Exhibit 18: Historical Bond Authorization Measures by state since 2000



Source: Ballotpedia

Exhibit 19: Key State Bond Issuance Authorization proposals in 2014 Election

Key State Bond Issuance Authorizations 2014

State	Initiative	Summary
California	Proposition 1	Authorize $7.12bn in GO bonds for state water supply infrastructure enhancements
New York	Proposal 3	Authorize $2bn of new debt for school technology and universal Pre-K funding to help local school districts
Alabama	Amendment 2	Authorize $50mn in bonds to contruct a maintain state National Guard armories
Hawaii	Amendment 2	Constitutional amendment to empower the legislature to issue special purpose revenue bonds in order to offer loans and financial assistance to agricultural enterprises
Maine	Question 2-7	Various ballot measures totaling $50mn for varying purposes, including medical research, watershed protection, and economic development
New Mexico	Bond Question A - C	Various ballot measures totaling $169mn in GO issuances for school infrastrucutre and healthcare, secured by a statewide proprerty tax levy
Rhode Island	Question 4 - 7	Various ballot measures totaling $248mn measure for education, mass transit, and environmental investments

Source Ballotpedia

political ideologies. **The most susceptible to these challenges are states with below average credit quality and/or burdened by large unfunded pension liabilities such as Illinois, Pennsylvania, and Connecticut.**

Tax Revenue Impacts

In the upcoming elections, 11 states are expected to vote on various tax revenue related initiatives including Florida, Georgia, Illinois, Massachusetts, Nevada, New Jersey, North Dakota, South Dakota, Tennessee, and Washington. In Exhibit 17, we highlight some of the key tax initiatives going on across the nation, which have the potential to impact key state revenues.

Voters in Georgia, Tennessee, and Illinois will be voting on measurers affecting their personal income taxes. **Georgia voters will decide whether or not to cap marginal maximum income tax rates at the current level of 6%.** Amendment A would prohibit the state's ability to further increases personal income taxes and any increases in tax rates would be limited to other funding streams.

Voters in Illinois will be deciding on whether or not to advise the legislature to increase the state income tax by 3% on incomes greater than $1mn to provide additional revenue to schools. The vote is advisory only and any actual increase would have to come directly from the state legislature.

While the State of Tennessee does not have an income tax, it has a "hall tax", which is a 6% tax on interest and dividend, specifically allowed by the State constitution. **This November, Tennesseans will vote on Amendment 3 to prohibit the legislature from levying, authorizing, or permitting any state or local payroll or earned personal income tax.**

In November, residents in Nevada will vote on various initiatives related to various tax revenue streams (Question 2 & 3). **The successful approval of Question 3 would institute a 2% margin tax on businesses with revenues of greater than $1mn beginning in January 1, 2015. The proceeds from the tax will be dedicated to public schools.** Additionally, voters will decide whether or not to repeal its longstanding 5% constitutional cap on mining-related severance taxes. **The successful approval of Question 2 would permit the State legislature to tax the net proceeds of mined natural resources, including metals, oil and gas, and other minerals at higher rates.** According to Moody's, mining-related industries reflect 8.6% of Nevada's GDP.

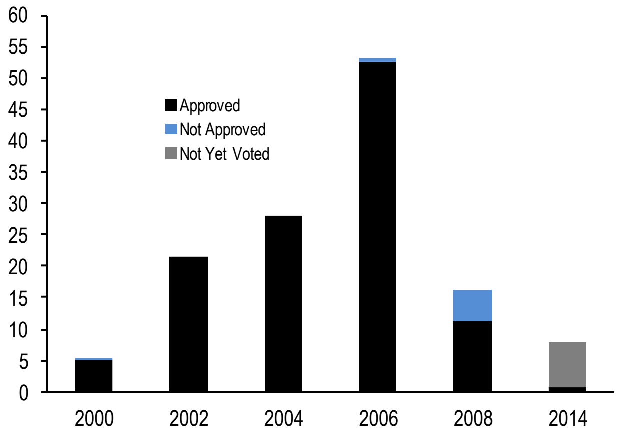
Additionally, North Dakota voters will consider whether or not to redirect 5% of the State's oil and gas tax

This document is being provided for the exclusive use of BRIAN FAGAN at MACKAY SHIELDS LLC (AS AGT).

Peter DeGroot[AC] (1-212) 834-7293
Karthik Narayan (1-212) 834-3051
Drew Henriques, CFA (212) 834-5674
J.P. Morgan Securities LLC

Exhibit 20: 22 or 88% of California proposed bond authorizations have been approved since 2000

Total Bond Authorization, $bn



Source: Ballotpedia

proceeds to support environmental conservation activities (Measure 5).

Bond Issuing Authority

In Exhibit 18, we illustrate the number of bond authorization measures that the States have presented to voters since 2000. Since 2000, the State's have collectively presented 182 bond issue measures with Maine, Rhode Island, California, New Mexico, and Texas rounding out the top 5. Additionally, **voters approved approximately 70% or 128 of the bond measures over this period rejecting only 30% or 22 measures.** That being said, there are approximately the top 5 states make up 70% of the total bond measures over the period with 22 states having approached voters only 7 times or less.

In the upcoming elections, 7 states are expected to vote on various bond authorization measures (Exhibit 19). The two largest bond issuance authorizations to be voted on in November are Proposition 1 in California and Proposal 3 in New York. **California's Prop 1, if approved, would enact the Water Quality, Supply, and Infrastructure Improvement Act of 2014 and authorize approximately $7.12bn in general obligation bonds for state water supply infrastructure projects that are expected to be secured by a General Fund appropriation.**

Exhibit 21: Key Transportation Funding Initiatives in 2014 Election

Key State Transportation Funding Authorizations 2014

State	Initiative	Summary
Louisiana	Amendment 4	Authorize the investment of public funds to create a State Infrastructure Bank, which would loan, pledge, guarantee and donate public funds to eligible transportation projects
Maryland	Question 1	Provide for the establishment of a constitutionally-defined Transportation Trust Fund and requires revenues in the fund to be used for paying transportation related bond debt and for the construction and maintenance of highways
Wisconsin	Question 1	Legislatively referred constitutional amendment that would require that revenue generated by transportation fees and taxes be deposited into the States Transportation Fund
Texas	Proposition 1	Legislatively referred constitutional amendment that would divert 50% of the general revenue derived from oil and gas taxes from the Economic Stabilization Fund (Rainy Day Fund), to the State Highway Fund to provide transportation funding for repairs and maintenance of public
Massachusetts	Question 1	Repeal 2013 law that automatically indexes gas tax increases inflation

Source: Ballotpedia

In Exhibit 20, we highlight California's approved historical bond authorizations since 2000 based on proposed issuance levels. **Since 2000, California voters have approved $118.7bn or 88% of total bond authorizations for various purposes while rejecting $5.8bn or 12%.** Interestingly, the largest rejected bond authorization was in 2008 when voters rejected Proposition 10 by a 59.5% to 40.5% margin, which would've allowed the State to issue $5bn in general obligations bonds for a variety of renewable energy, alternative fuel, energy efficiency, and air emissions reduction purposes.

Proposal 3 in New York would authorize the State to issue up to $2bn of new debt for school technology in addition to funding for universal pre-kindergarten and funding for after school programs.

Transportation Funding

The uncertainty related to the long term solvency of the Federal Highway Trust Fund has led many states to turn their focus on how to expand, secure, and protect transportation funding amid reduced gas tax collections. **In the upcoming elections, 5 states are expected to vote on various transportation funding initiatives (Exhibit 21).**

This document is being provided for the exclusive use of BRIAN FAGAN at MACKAY SHIELDS LLC (AS AGT).

Peter DeGroot[AC] (1-212) 834-7293
Karthik Narayan (1-212) 834-3051
Drew Henriques, CFA (212) 834-5674
J.P. Morgan Securities LLC

In Louisiana, proposing a State Transportation Infrastructure Bank as a tool to finance transportation projects while Wisconsin and Maryland will ask for voter approval to establish new constitutional protections for transportation funds to shield monies from future General Fund raids and ensure dedicated revenues are used solely for transportation related purposes.

In Texas, lawmakers are taking a different approach through **Prop 1, which would amend the state constitution by taking 50% of oil and gas tax receipts originally transferred to the states rainy day fund, and redirecting them to the State Highway Fund.**

In 2013, Massachusetts lawmakers passed the Transportation Finance Act, which raised the State's gasoline tax from 21 cents to 24 cents and indexed any increases to inflation to pay for road and infrastructure maintenance. If approved, Question 1 would repeal the requirement to annually adjust the states gas tax to inflation (CPI).

Financial Governance

In the upcoming elections, 3 states (CA, MO, ND) are expected to vote on key financial governance and management related initiatives (Exhibit 22).

The most notable initiative is Proposition 2 in California, which would alter the States existing requirement for the Budget Stabilization Account. **The measure would require that 1.5% of annual state general fund revenues be reserved with half (0.75%) used to defease outstanding debt including pensions and OPEB liabilities, with the remaining 0.75% deposited into the states rainy day fund/BSA.** Additionally, the rainy day fund deposits would be capped at 10% with stricter limitations on withdrawing funds. Debt reduction payments and rainy day fund deposits would also be increased by any capital gains tax revenues exceeding 8% of total tax revenues.

Prop 2 would be in effect for the next 15yrs (FY 2030) at which point the Legislature may opt to redirect the required debt service amount to the rainy day fund. The new law would differ from the current law, whereby both debt payments and BSA deposits were executed at the direction of the governor.

Exhibit 22: Key Financial Governance and Management Initiatives in 2014 Election

Key State Financial Governance and Management Practice Initiatives 2014

State	Initiative	Summary
California	Proposition 2	Legislatively referred constitutional amendment that would alter the State's existing requirements for the Budget Stabilization Account (BSA/Rainy Day Fund). **Would require that 1.5% of annual general fund revenue be reserved with 0.75% used to defease outstanding debt (including Pension & OPEB liabilities) and the remaining 0.75% deposited in the states BSA.** BSA deposits would be subject to a 10% cap, and stricter limitations on withdrawing funds would be created. **Debt reduction payments would also be increased by any capital gains tax revenues exceeding 8% of total tax revenues.**
Missouri	Amendment 10	Legislatively referred constitutional amendment that would **prohibit the Governor from estimating available state revenues when making budget recommendations to the legislature in situations where estimated available state revenues are determine from proposed, but not yet approved, legislation.** Also, the amendment would prohibit the governor from reducing appropriations for the payment of public debt
North Dakota	Measure 4	Legislatively referred constitutional amendment that would require that **initiated measures estimated to have a significant fiscal impact be placed on the general election ballot** and prohibit the approval for circulation of any petition to initiate a constitutional amendment that would make a direct appropriation of public funds for a specific purpose

Source: Ballotpedia

California's Proposition 2 is most likely meant to address the highly volatile revenue structure and current governance restrictions, which have long been a credit limitation for the State. Current law requires two-thirds approval of the legislature to raise revenues restricting the Governors ability to order spending cuts or raise revenues in a year when revenues are underperforming. Additionally, the state has a progressive personal income tax structure and taxes capital gains at the same rate as other income, leading to a high concentration of taxes coming from high-income tax payers. The outsized concentration in income tax collections has led to increased revenue volatility as compared to other states. This revenue volatility combined with structural inflexibility has led to steep downturns in periods of economic decline. **We believe successful passage of Proposition 2 would have a positive impact on the long-term credit stability for the State of California compared to prior years.**

This document is being provided for the exclusive use of BRIAN FAGAN at MACKAY SHIELDS LLC (AS AGT).

Peter DeGroot[AC] (1-212) 834-7293
Karthik Narayan (1-212) 834-3051
Drew Henriques, CFA (212) 834-5674
J.P. Morgan Securities LLC

Next we highlight the State of Illinois gubernatorial race. A change in governorship in Illinois may have significant public policy and related credit implications**.**

State of Illinois Gubernatorial race expected to shed light on the future of public policy and may have long term credit implications

One of the most important gubernatorial elections for municipal investors next week will be in the State of Illinois where Democratic incumbent Quinn is running against Republican candidate Bruce Rauner. The election in Illinois is particularly important given the key fiscal issues faced by the state and the effects that a split government can potentially have on shaping public policy.

In Illinois, the expiration of the state's temporary income and corporate tax increases remains a key credit challenge for the State. Under a 2011 tax law, temporary income tax rate increases were imposed, with built-in expiration dates beginning on January 1, 2015, when the rates are scheduled to decline to 3.75% from 5% for individuals and to 5.25% from 7% for corporations. **The state's reliance on these revenues remains significant. For FY 2015, the expiration of the tax increases would result in a $2.7bn decline in individual and corporate income taxes and 8.7% decline in total state source general fund revenues as compared to the Governor's Proposed FY 2015 budget.**

Candidates Quinn and Rauner offer vastly different strategies on how to improve the Illinois economy, with the incumbent (Quinn) pushing for an extension of the income tax increase and supportive of the advisory ballot measure to impose an additional 3% tax on incomes over $1mn. On the contrary, Republican candidate **Bruce Rauner supports maintaining the current extension of the increased tax extension, but reducing it back to the 3% level within 4 years and opposes the adoption of the millionaire tax.**

From a municipal credit perspective, it would be a significant credit negative if the temporary tax increase were allowed to expire without subsequent revenue raising or expenditure reduction measures and severely limit the State's financial flexibility and credit profile. According to Moody's, the State's financial reserve position (0.5% of estimated 2014 expenditures) ranks 47th in the nation and severely limits the alternatives to in closing the sizeable budget deficit.

Both gubernatorial candidates have also proposed opposing plans on how to address the State's FY 2013 significant unfunded pension liability of $100.5bn (39% Weighted Average Funded Ratio), which is the highest by dollar amount in the nation. Incumbent Governor Quinn stands behind his proposed legislation on December 5, 2013 which is expected to decrease the states unfunded liability by 21% and decrease annual contributions by 17% by limiting COLA's and increasing minimum retirement ages for employees. **Despite Quinn's efforts, an Illinois court judge barred the state from implementing the reforms given the protection of employee pension benefits as provided by the Illinois Constitution.** Bruce Rauner has supported maintaining benefits for current retirees and freezing the plans and moving employees to a 401(k) style plan similar to the private-sector.

According to average polling provided by RealClearPolicitcs.com, Incumbent Governor Quinn currently maintains a slim 1pt lead over Republican candidate Rauner by a margin of 45 to 44. **While there remains considerable uncertainty regarding the outcome of the election, there appears to be common ground regarding a short term extension of the tax extension potentially mitigating the risk of a substantial revenue shortfall beginning January 1st.** That being said, the outcome of the election will shape policy and undoubtedly have an impact on the long-term credit quality of the State.

This document is being provided for the exclusive use of BRIAN FAGAN at MACKAY SHIELDS LLC (AS AGT).

Peter DeGroot[AC] (1-212) 834-7293
Karthik Narayan (1-212) 834-3051
Drew Henriques, CFA (212) 834-5674
J.P. Morgan Securities LLC

Trading recommendations

- **Golden State Tobacco Corp State Appropriation backed 16yr bonds provide an additional 36bps spread to California State Public Works Board Lease Appropriation backed Revenue bonds despite similar structure and credit profile** *(US Fixed Income Markets Weekly, 10/03/2014)*

- **Investors should consider Corpus Christi, TX GOLT bonds and the Denver Regional Transportation District's 0.4% (FasTracks) sales tax bonds given strong Real GDP growth in the underlying metropolitan areas** *(US Fixed Income Markets Weekly, 09/26/2014)*

- **Significant appreciation in tax-exempts vs. Corporates may motivate some investors to take profits. For example; municipal credits backed by Duke Energy Carolina, Tucson Electric, and AEP Central Texas have outperformed pari Corporate credits YTD by 63bps, 69bps, and 88bps, respectively** *(US Fixed Income Markets Weekly, 09/19/2014)*

- **Investors should consider redeploying capital into the 8yr to 9yr area of the curve for a yield pickup of about 80-90bps over 5yr bonds and better total return expectations based on our rate forecasts** *(US Fixed Income Markets Weekly, 09/05/2014)*

- **Chicago Sales Tax Bonds provide a lien on pledged sales taxes and may present relative value versus GO bonds.** *(US Fixed Income Markets Weekly, 06/13/2014)*

- **Chicago Water and Sewer Enterprise debt benefit from healthy credit fundamentals and modest impact from the large unfunded pension liabilities of the City.** *(USFIMS, 06/13/2014)*

- **Sell long 4s, particularly those trading on the cusp of being outside of de minimis, and replace with current 5% coupons. The trade nets a higher book yield, decreases rate exposure, and lessens the overall tax burden.** *(USFIMS, 1/24/14)*

- **Based on current market levels, investors should be aggressively swapping out of long dated A-rated 4% coupon bonds and into 5% structures** *(US FIMS Weekly, 6/7/13)*

- **Look to the Heartland for credits that showed resiliency through the recession and are currently exhibiting strong growth** *(US FIMS Weekly, 5/10/13)* Spread: State of Utah (+5bps), Salt Lake County, UT (+19bps), Des Moines, IA (+29bps), Cedar Rapids, IA (+28bps), Bismarck, ND (+25bps), Fargo, ND (+28bps), Lincoln, NE (+27bps), Omaha, NE (+17bps)

- **As Michigan's credit improves, issuers that rely on transfers from the State should benefit. Consider select local credits that are highly rated but provide outsized spread, largely as a result of their association with the State and some of its high profile distressed local issuers.** Spread: Grand Rapids (+50), Ann Arbor (+40), Charter Commerce (+40), Warren (+58) *(US FIMS Weekly, 4/19/13)*

- **A stabilizing housing market is supportive of property tax-backed debt.** Consider Honolulu GO (+30), New York City GO (+40), San Francisco GO (+25), and Houston GO (+28) *(US FIMS Weekly, 4/12/13)*

- **IL State GO bonds may be attractive at current spreads, given strong legal protections, a first call on any and all revenues, and the State's broad revenue generating powers.** Spread: +140 *(US FIMS Weekly, 3/15/13)*

- **We recommend low AA and A rated airport bonds that have limited local competition, a diversified revenue base, a sizeable and strong home service area, and solid airline relationships, marked by a track record of low enplanement costs** *(US FIMS Weekly, 2/8/13)*

- **Add AMT securities at today's spreads for the additional yield-pick up, assuming that the sector and credit are acceptable to investors in a lower liquidity bucket** *(US FIMS Weekly, 1/11/13)*

- **Buy special tax bonds that have strong fundamentals but trade at wider spreads due to factors unrelated to the quality of the cash flows of the securities.** Spread: Cook County Sales Tax (+62), Chicago Sales Tax (+70), Build Illinois (+80), MetPier (+100) *(US FIMS Weekly, 8/10/12)*

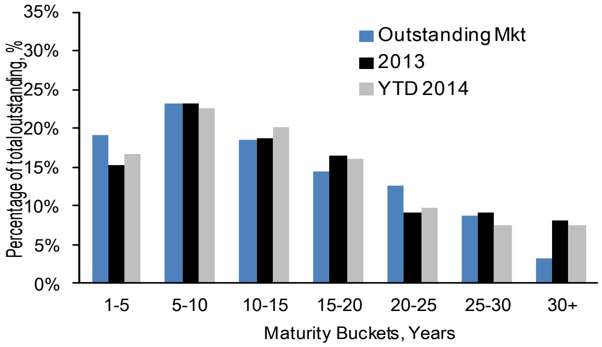
This document is being provided for the exclusive use of BRIAN FAGAN at MACKAY SHIELDS LLC (AS AGT).

Peter DeGroot[AC] (1-212) 834-7293
Karthik Narayan (1-212) 834-3051
Drew Henriques, CFA (212) 834-5674
J.P. Morgan Securities LLC

J.P.Morgan

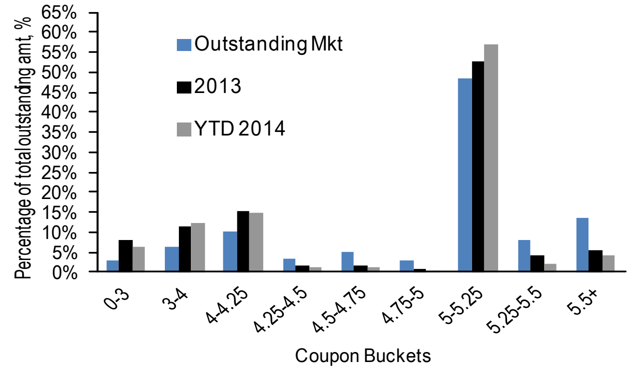
Issuance and Trading Trends

Year to date, 30yr+ issuance is 4-percentage points higher than the proportion of outstanding market in that maturity bucket



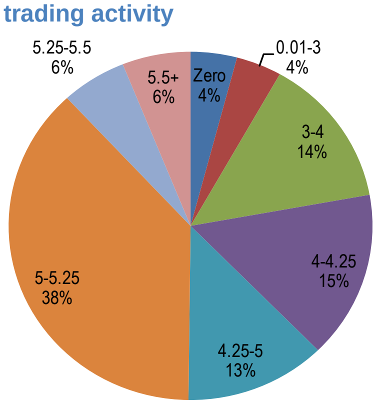
Source: S&P, J.P. Morgan
Note: Long term, fixed coupon (ex zeros), tax-exempt bonds only

55% of YTD issuance has been in 5%-5.25% coupon bonds



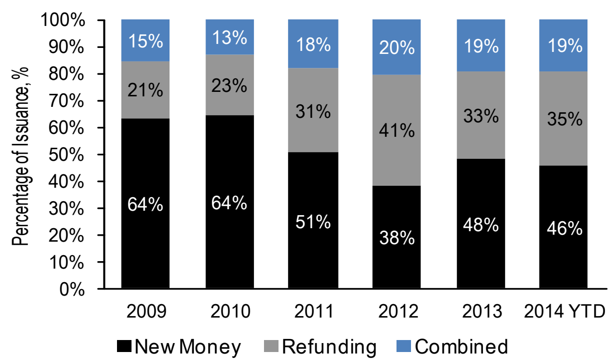
Source: S&P, J.P. Morgan
Note: Long term, fixed coupon (ex-zeros), tax-exempt bonds only

5-5.25% coupon bonds have accounted for the highest proportion of trading activity



Source: MSRB, J.P. Morgan

Refunding has accounted for 35% of YTD issuance



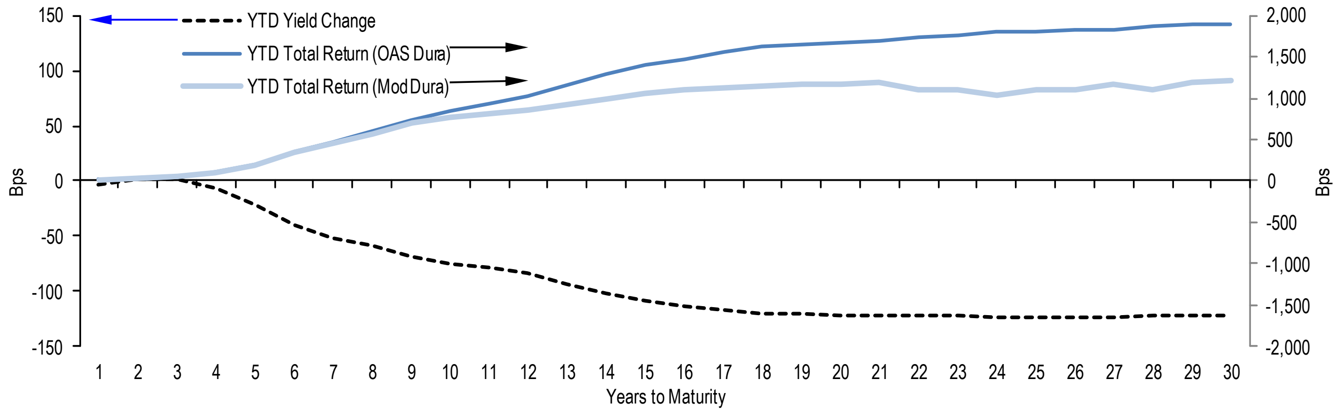
Source: Thomson SDC, J.P. Morgan
Note: Long term bonds only

This document is being provided for the exclusive use of BRIAN FAGAN at MACKAY SHIELDS LLC (AS AGT).

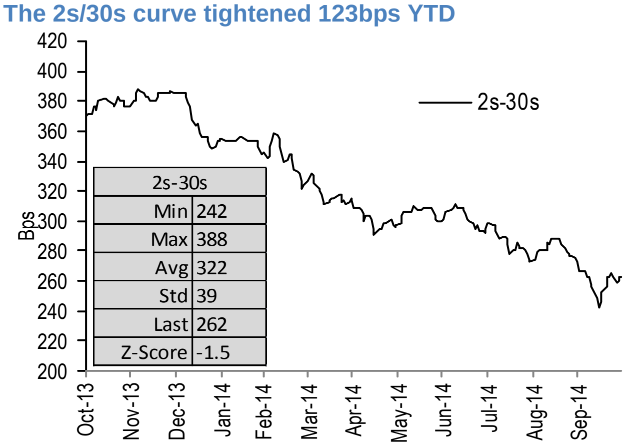
Peter DeGroot[AC] (1-212) 834-7293
Karthik Narayan (1-212) 834-3051
Drew Henriques, CFA (212) 834-5674
J.P. Morgan Securities LLC

Total return and Curve Spreads

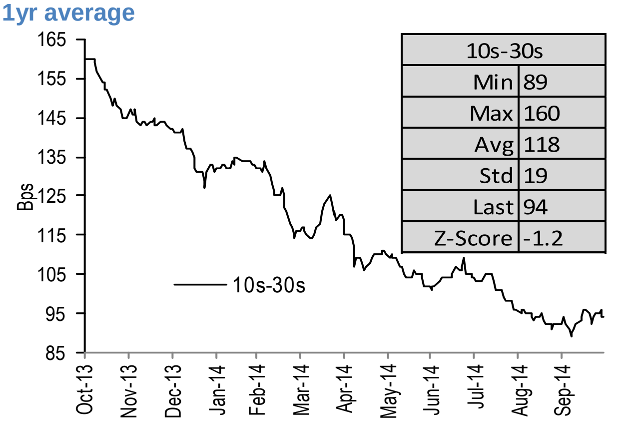
HG municipal yields have declined YTD resulting in positive returns for most spots on the curve



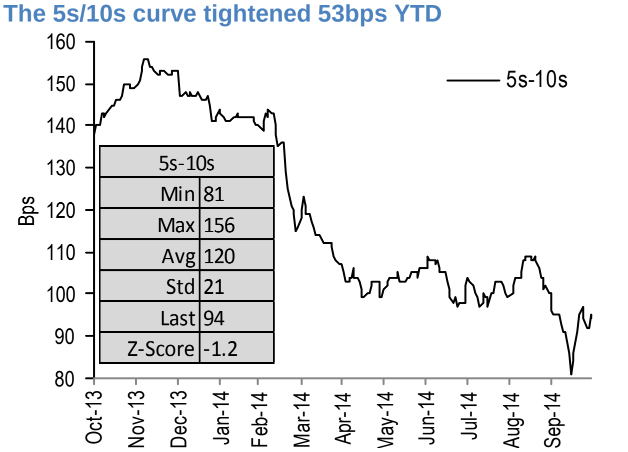
The 2s/30s curve tightened 123bps YTD



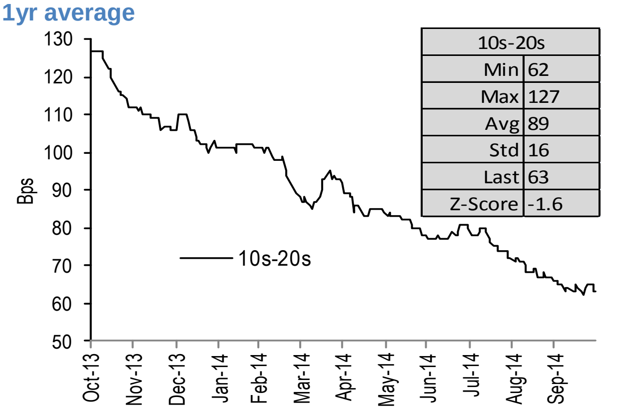
At 94bps, the 10s/30s curve is 1.2 sigma lower than its 1yr average



The 5s/10s curve tightened 53bps YTD



At 63bps, the 10s/20s curve is 1.6 sigma lower than its 1yr average



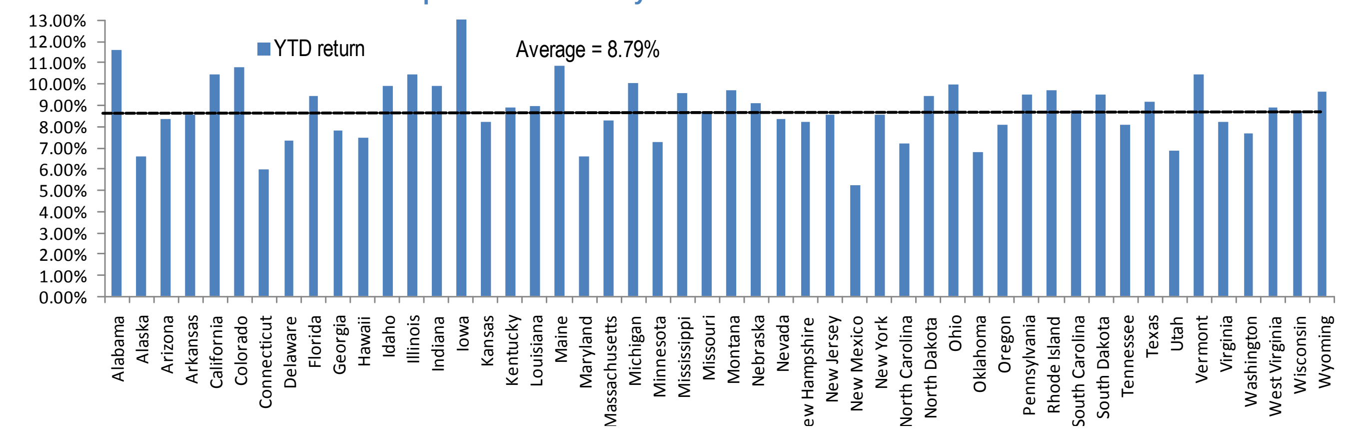
Source: Thomson Reuters, Bloomberg, J.P. Morgan
Note: Yields as of 10/30/2014

This document is being provided for the exclusive use of BRIAN FAGAN at MACKAY SHIELDS LLC (AS AGT).

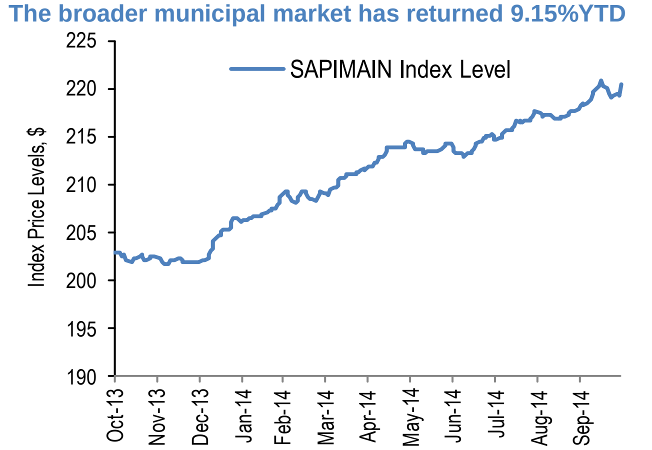
Peter DeGroot[AC] (1-212) 834-7293
Karthik Narayan (1-212) 834-3051
Drew Henriques, CFA (212) 834-5674
J.P. Morgan Securities LLC

Total return by State and Sector

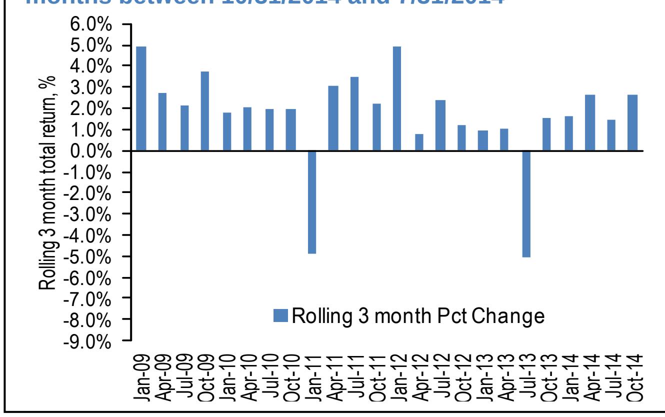
The YTD total return for S&P municipal bond indices by state is 8.79%



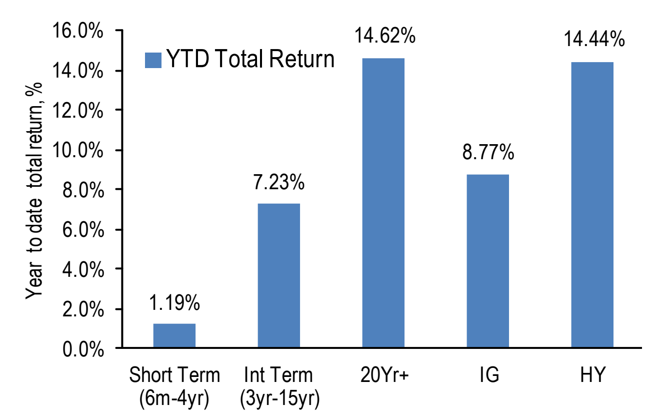
The broader municipal market has returned 9.15%YTD



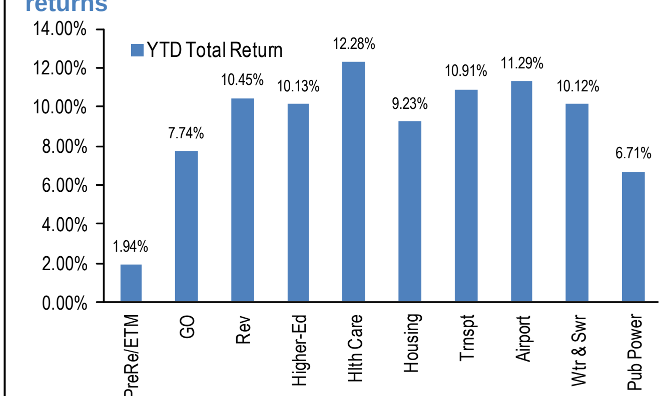
The SAPIMAIN index has returned 2.67% in the three months between 10/31/2014 and 7/31/2014



The S&P 20yr+ index has YTD returns of 14.62%



The S&P healthcare sector index shows the best YTD returns



Source: S&P, Bloomberg, J.P. Morgan, as of 10/30/2014
Note: Total return calculated as the percentage change in index levels. S&P Municipal bond total return indices used, please refer to http://us.spindices.com/index-family/fixed-income/municipals

This document is being provided for the exclusive use of BRIAN FAGAN at MACKAY SHIELDS LLC (AS AGT).

Peter DeGroot[AC] (1-212) 834-7293
Karthik Narayan (1-212) 834-3051
Drew Henriques, CFA (212) 834-5674
J.P. Morgan Securities LLC

Glossary of Publication Topics

Detroit's bid for bankruptcy and potential market impact
Compilation of Puerto Rico Research

Sector Overviews
- Airlines: 9/14/2012
- Airports: 2/7/2014, 12/13/2013, 2/8/2013
- Bond Insurance: 5/31/2013, 5/17/2013, 3/22/2013
- California cities: 10/12/2012, 6/15/2012
- California counties: 3/8/2013
- CA RDAs: 1/27/2012, 1/6/2012
- CA school districts: 2/1/2013
- Charter Schools: 1/10/2014, 1/25/2013
- Corporate pari-passu credits: 5/2/2014,7/26/2013
- Corporate credit risk: 1/31/2014
- Debt management policies: 6/28/2013
- Housing: 07/11/2014, 07/18/2014
- Healthcare: 3/14/2014, 7/12/2013, 9/21/2012, 6/29/2012
- Higher-education: 3/21/2014, 3/30/2012
- Pensions: 2/7/2014, 4/26/2013, 9/14/2012, 8/3/2012, 7/27/2012, 6/29/2012
- Public Power: 6/1/2012, 1/20/2012,08/08/2014
- Special Tax Bonds: 8/10/2012, 4/27/2012
- States: 5/30/2014
- Toll Roads: 4/5/2013, 2/22/2013
- Tobacco: 4/26/2013, 9/7/2012, 10/03/2014, 10/17/2014, 10/24/2014
- Water & Sewer: 9/12/2014

Specific Credits
- Atlantic City: 11/1/2013
- Build Illinois Bonds: 8/10/2012, 4/27/2012
- Chicago: 6/13/2014, 4/11/2014, 3/7/2014, 10/25/2013, 8/23/2013
- Detroit: 5/16/2014, 4/11/2014, 3/7/2014, 2/21/2014, 1/31/2014, 1/24/2014, 12/13/2013, 11/15/2013, 8/22/2014
- Guam issuers: 8/23/2013, 5/31/2013
- Harrisburg: 9/6/2013
- Michigan Locals : 4/19/2013
- New Jersey issuers: 3/28/2014, 7/13/2012, 4/20/2012
- New York City: 9/6/2013, 4/12/2013, 10/12/2012, 8/17/2012
- Puerto Rico: 6/13/2014, 6/6/2014, 5/16/2014, 5/9/2014, 5/2/2014, 4/11/2014, 4/4/2014, 3/28/2014, 3/21/2014, 3/14/2014, 3/7/2014, 2/21/2014, 2/7/2014, 2/4/2014, 1/31/2014, 1/10/2014, 1/3/2014, 12/13/2013, 11/15/2013, 11/1/2013, 8/22/2014, 9/12/2014
- San Francisco: 4/12/2013, 6/15/2012
- Seattle: 06/20/2014
- State of California: 4/4/2014, 3/21/2014, 6/7/2013, 2/8/2013, 10/12/2012, 6/15/2012
- State of Florida: 4/25/2014, 6/8/2012
- State of Illinois: 12/13/2013, 7/12/2013, 6/7/2013, 3/22/2013, 3/15/2013
- State of Iowa & locals: 5/3/2013
- State of Maryland: 6/22/2012
- State of Nebraska & locals: 5/2/2014, 5/10/2013
- State of New York: 5/16/2014, 8/17/2012
- State of North Dakota & locals: 5/10/2013
- State of Rhode Island & locals: 5/9/2014
- State of Tennessee: 6/22/2012
- State of Texas: 5/2/2014, 6/8/2012
- State of Utah & locals: 5/3/2013
- State of Wyoming: 5/3/2013
- Virgin Island issuers: 8/23/2013, 5/31/2013
- Washington D.C. : 06/20/2014

Defaults/Distressed Munis
- Chapter 9/Distressed locals: 6/6/2014, 10/4/2013,7/26/2013, 7/19/2013, 4/5/2013, 3/1/2013, 2/22/2013, 11/16/2012, 11/2/2012, 10/19/2012, 9/28/2012, 9/7/2012, 8/24/2012, 7/20/2012, 7/13/2012, 8/22/2014
- Defaults: 3/28/2014,1/3/2014, 9/27/2013, 7/12/2013, 4/5/2013, 1/4/2013
- Security language: 8/9/2013, 8/2/2013

Tax Policy
- AMT: 1/11/2013
- Corporate tax reform: 3/8/2013
- De minimis: 1/3/2014, 5/31/2013
- Marketplace Fairness Act: 5/10/2013, 5/3/2013
- Tax-exemption: 3/15/2013, 3/1/2013, 2/22/2013, 1/4/2013, 12/7/2012, 3/2/2012
- Tax swapping: 1/24/2014, 7/19/2013
- Tax reform: 2/28/2014

\

Other Federal Public Policy
- Basel III: 1/11/2013
- Current inclusion of market discount: 4/19/2013
- Debt Ceiling: 10/4/2013
- 2013 Elections: 11/15/2013
- Federal public policy: 4/5/2013, 3/15/2013, 3/8/2013, 2/22/2013, 1/4/2013, 9/14/2012
- Money market reform: 6/14/2013
- Sequestration: 3/1/2013, 2/1/2013, 10/26/2012, 10/19/2012
- Volcker Rule: 5/4/2012

Periodic Updates
- Coupon performance: 5/9/2014, 5/2/2014, 7/19/2013, 5/18/2012
- Federal Reserve Flow of Funds: 6/13/2014, 3/7/2014
- State and local revenues: 5/30/2014, 6/7/2013
- State and local unemployment: 3/21/2014
- Total Return & performance: 3/22/2013, 9/12/2014
- Short call bonds: 6/14/2013
- Default rates in municipals versus corporates 8/8/2014

Weekly Updates
- Comparisons versus Corporates and Treasuries
- Full year gross and net supply estimates
- Fund flows
- Interest rate forecast
- Next week's supply

This document is being provided for the exclusive use of BRIAN FAGAN at MACKAY SHIELDS LLC (AS AGT).

Disclosures

Analyst Certification: The research analyst(s) denoted by an "AC" on the cover of this report certifies (or, where multiple research analysts are primarily responsible for this report, the research analyst denoted by an "AC" on the cover or within the document individually certifies, with respect to each security or issuer that the research analyst covers in this research) that: (1) all of the views expressed in this report accurately reflect his or her personal views about any and all of the subject securities or issuers; and (2) no part of any of the research analyst's compensation was, is, or will be directly or indirectly related to the specific recommendations or views expressed by the research analyst(s) in this report. For all Korea-based research analysts listed on the front cover, they also certify, as per KOFIA requirements, that their analysis was made in good faith and that the views reflect their own opinion, without undue influence or intervention.

Company-Specific Disclosures: Important disclosures, including price charts, are available for compendium reports and all J.P. Morgan–covered companies by visiting https://jpmm.com/research/disclosures, calling 1-800-477-0406, or e-mailing research.disclosure.inquiries@jpmorgan.com with your request. J.P. Morgan's Strategy, Technical, and Quantitative Research teams may screen companies not covered by J.P. Morgan. For important disclosures for these companies, please call 1-800-477-0406 or e-mail research.disclosure.inquiries@jpmorgan.com.

Analysts' Compensation: The research analysts responsible for the preparation of this report receive compensation based upon various factors, including the quality and accuracy of research, client feedback, competitive factors, and overall firm revenues.

Other Disclosures

J.P. Morgan ("JPM") is the global brand name for J.P. Morgan Securities LLC ("JPMS") and its affiliates worldwide. J.P. Morgan Cazenove is a marketing name for the U.K. investment banking businesses and EMEA cash equities and equity research businesses of JPMorgan Chase & Co. and its subsidiaries.

Options related research: If the information contained herein regards options related research, such information is available only to persons who have received the proper option risk disclosure documents. For a copy of the Option Clearing Corporation's Characteristics and Risks of Standardized Options, please contact your J.P. Morgan Representative or visit the OCC's website at http://www.optionsclearing.com/publications/risks/riskstoc.pdf

Legal Entities Disclosures
U.S.: JPMS is a member of NYSE, FINRA, SIPC and the NFA. JPMorgan Chase Bank, N.A. is a member of FDIC. **U.K**.: JPMorgan Chase N.A., London Branch, is authorised by the Prudential Regulation Authority and is subject to regulation by the Financial Conduct Authority and to limited regulation by the Prudential Regulation Authority. Details about the extent of our regulation by the Prudential Regulation Authority are available from J.P. Morgan on request. J.P. Morgan Securities plc (JPMS plc) is a member of the London Stock Exchange and is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority. Registered in England & Wales No. 2711006. Registered Office 25 Bank Street, London, E14 5JP. **South Africa**: J.P. Morgan Equities South Africa Proprietary Limited is a member of the Johannesburg Securities Exchange and is regulated by the Financial Services Board. **Hong Kong**: J.P. Morgan Securities (Asia Pacific) Limited (CE number AAJ321) is regulated by the Hong Kong Monetary Authority and the Securities and Futures Commission in Hong Kong and/or J.P. Morgan Broking (Hong Kong) Limited (CE number AAB027) is regulated by the Securities and Futures Commission in Hong Kong. **Korea**: J.P. Morgan Securities (Far East) Ltd, Seoul Branch, is regulated by the Korea Financial Supervisory Service. **Australia**: J.P. Morgan Australia Limited (JPMAL) (ABN 52 002 888 011/AFS Licence No: 238188) is regulated by ASIC and J.P. Morgan Securities Australia Limited (JPMSAL) (ABN 61 003 245 234/AFS Licence No: 238066) is regulated by ASIC and is a Market, Clearing and Settlement Participant of ASX Limited and CHI-X. **Taiwan**: J.P.Morgan Securities (Taiwan) Limited is a participant of the Taiwan Stock Exchange (company-type) and regulated by the Taiwan Securities and Futures Bureau. **India**: J.P. Morgan India Private Limited, having its registered office at J.P. Morgan Tower, Off. C.S.T. Road, Kalina, Santacruz East, Mumbai - 400098, is a member of the National Stock Exchange of India Limited (SEBI Registration Number - INB 230675231/INF 230675231/INE 230675231) and Bombay Stock Exchange Limited (SEBI Registration Number - INB 010675237/INF 010675237) and is regulated by Securities and Exchange Board of India. For non local research reports, this material is not distributed in India by J.P. Morgan India Private Limited. **Thailand**: This material is issued and distributed in Thailand by JPMorgan Securities (Thailand) Ltd., which is a member of the Stock Exchange of Thailand and is regulated by the Ministry of Finance and the Securities and Exchange Commission and its registered address is 3rd Floor, 20 North Sathorn Road, Silom, Bangrak, Bangkok 10500. **Indonesia**: PT J.P. Morgan Securities Indonesia is a member of the Indonesia Stock Exchange and is regulated by the OJK a.k.a. BAPEPAM LK. **Philippines**: J.P. Morgan Securities Philippines Inc. is a Trading Participant of the Philippine Stock Exchange and a member of the Securities Clearing Corporation of the Philippines and the Securities Investor Protection Fund. It is regulated by the Securities and Exchange Commission. **Brazil**: Banco J.P. Morgan S.A. is regulated by the Comissao de Valores Mobiliarios (CVM) and by the Central Bank of Brazil. **Mexico**: J.P. Morgan Casa de Bolsa, S.A. de C.V., J.P. Morgan Grupo Financiero is a member of the Mexican Stock Exchange and authorized to act as a broker dealer by the National Banking and Securities Exchange Commission. **Singapore**: This material is issued and distributed in Singapore by or through J.P. Morgan Securities Singapore Private Limited (JPMSS) [MCI (P) 199/03/2014 and Co. Reg. No.: 199405335R] which is a member of the Singapore Exchange Securities Trading Limited and is regulated by the Monetary Authority of Singapore (MAS) and/or JPMorgan Chase Bank, N.A., Singapore branch (JPMCB Singapore) which is regulated by the MAS. This material is provided in Singapore only to accredited investors, expert investors and institutional investors, as defined in Section 4A of the Securities and Futures Act, Cap. 289. Recipients of this document are to contact JPMSS or JPMCB Singapore in respect of any matters arising from, or in connection with, the document. **Japan**: JPMorgan Securities Japan Co., Ltd. is regulated by the Financial Services Agency in Japan. **Malaysia**: This material is issued and distributed in Malaysia by JPMorgan Securities (Malaysia) Sdn Bhd (18146-X) which is a Participating Organization of Bursa Malaysia Berhad and a holder of Capital Markets Services License issued by the Securities Commission in Malaysia. **Pakistan**: J. P. Morgan Pakistan Broking (Pvt.) Ltd is a member of the Karachi Stock Exchange and regulated by the Securities and Exchange Commission of Pakistan. **Saudi Arabia**: J.P. Morgan Saudi Arabia Ltd. is authorized by the Capital Market Authority of the Kingdom of Saudi Arabia (CMA) to carry out dealing as an agent, arranging, advising and custody, with respect to securities business under licence number 35-07079 and its registered address is at 8th Floor, Al-Faisaliyah Tower, King Fahad

This document is being provided for the exclusive use of BRIAN FAGAN at MACKAY SHIELDS LLC (AS AGT).

Road, P.O. Box 51907, Riyadh 11553, Kingdom of Saudi Arabia. **Dubai**: JPMorgan Chase Bank, N.A., Dubai Branch is regulated by the Dubai Financial Services Authority (DFSA) and its registered address is Dubai International Financial Centre - Building 3, Level 7, PO Box 506551, Dubai, UAE.

Country and Region Specific Disclosures
U.K. and European Economic Area (EEA): Unless specified to the contrary, issued and approved for distribution in the U.K. and the EEA by JPMS plc. Investment research issued by JPMS plc has been prepared in accordance with JPMS plc's policies for managing conflicts of interest arising as a result of publication and distribution of investment research. Many European regulators require a firm to establish, implement and maintain such a policy. This report has been issued in the U.K. only to persons of a kind described in Article 19 (5), 38, 47 and 49 of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (all such persons being referred to as "relevant persons"). This document must not be acted on or relied on by persons who are not relevant persons. Any investment or investment activity to which this document relates is only available to relevant persons and will be engaged in only with relevant persons. In other EEA countries, the report has been issued to persons regarded as professional investors (or equivalent) in their home jurisdiction. **Australia:** This material is issued and distributed by JPMSAL in Australia to "wholesale clients" only. This material does not take into account the specific investment objectives, financial situation or particular needs of the recipient. The recipient of this material must not distribute it to any third party or outside Australia without the prior written consent of JPMSAL. For the purposes of this paragraph the term "wholesale client" has the meaning given in section 761G of the Corporations Act 2001. **Germany:** This material is distributed in Germany by J.P. Morgan Securities plc, Frankfurt Branch and J.P.Morgan Chase Bank, N.A., Frankfurt Branch which are regulated by the Bundesanstalt für Finanzdienstleistungsaufsicht. **Hong Kong:** The 1% ownership disclosure as of the previous month end satisfies the requirements under Paragraph 16.5(a) of the Hong Kong Code of Conduct for Persons Licensed by or Registered with the Securities and Futures Commission. (For research published within the first ten days of the month, the disclosure may be based on the month end data from two months prior.) J.P. Morgan Broking (Hong Kong) Limited is the liquidity provider/market maker for derivative warrants, callable bull bear contracts and stock options listed on the Stock Exchange of Hong Kong Limited. An updated list can be found on HKEx website: http://www.hkex.com.hk. **Japan:** There is a risk that a loss may occur due to a change in the price of the shares in the case of share trading, and that a loss may occur due to the exchange rate in the case of foreign share trading. In the case of share trading, JPMorgan Securities Japan Co., Ltd., will be receiving a brokerage fee and consumption tax (shouhizei) calculated by multiplying the executed price by the commission rate which was individually agreed between JPMorgan Securities Japan Co., Ltd., and the customer in advance. Financial Instruments Firms: JPMorgan Securities Japan Co., Ltd., Kanto Local Finance Bureau (kinsho) No. 82 Participating Association / Japan Securities Dealers Association, The Financial Futures Association of Japan, Type II Financial Instruments Firms Association and Japan Investment Advisers Association. **Korea:** This report may have been edited or contributed to from time to time by affiliates of J.P. Morgan Securities (Far East) Ltd, Seoul Branch. **Singapore:** JPMSS and/or its affiliates may have a holding in any of the securities discussed in this report; for securities where the holding is 1% or greater, the specific holding is disclosed in the Important Disclosures section above. **India:** For private circulation only, not for sale. **Pakistan:** For private circulation only, not for sale. **New Zealand:** This material is issued and distributed by JPMSAL in New Zealand only to persons whose principal business is the investment of money or who, in the course of and for the purposes of their business, habitually invest money. JPMSAL does not issue or distribute this material to members of "the public" as determined in accordance with section 3 of the Securities Act 1978. The recipient of this material must not distribute it to any third party or outside New Zealand without the prior written consent of JPMSAL. **Canada:** The information contained herein is not, and under no circumstances is to be construed as, a prospectus, an advertisement, a public offering, an offer to sell securities described herein, or solicitation of an offer to buy securities described herein, in Canada or any province or territory thereof. Any offer or sale of the securities described herein in Canada will be made only under an exemption from the requirements to file a prospectus with the relevant Canadian securities regulators and only by a dealer properly registered under applicable securities laws or, alternatively, pursuant to an exemption from the dealer registration requirement in the relevant province or territory of Canada in which such offer or sale is made. The information contained herein is under no circumstances to be construed as investment advice in any province or territory of Canada and is not tailored to the needs of the recipient. To the extent that the information contained herein references securities of an issuer incorporated, formed or created under the laws of Canada or a province or territory of Canada, any trades in such securities must be conducted through a dealer registered in Canada. No securities commission or similar regulatory authority in Canada has reviewed or in any way passed judgment upon these materials, the information contained herein or the merits of the securities described herein, and any representation to the contrary is an offence. **Dubai:** This report has been issued to persons regarded as professional clients as defined under the DFSA rules. **Brazil**: Ombudsman J.P. Morgan: 0800-7700847 / ouvidoria.jp.morgan@jpmorgan.com.

General: Additional information is available upon request. Information has been obtained from sources believed to be reliable but JPMorgan Chase & Co. or its affiliates and/or subsidiaries (collectively J.P. Morgan) do not warrant its completeness or accuracy except with respect to any disclosures relative to JPMS and/or its affiliates and the analyst's involvement with the issuer that is the subject of the research. All pricing is as of the close of market for the securities discussed, unless otherwise stated. Opinions and estimates constitute our judgment as of the date of this material and are subject to change without notice. Past performance is not indicative of future results. This material is not intended as an offer or solicitation for the purchase or sale of any financial instrument. The opinions and recommendations herein do not take into account individual client circumstances, objectives, or needs and are not intended as recommendations of particular securities, financial instruments or strategies to particular clients. The recipient of this report must make its own independent decisions regarding any securities or financial instruments mentioned herein. JPMS distributes in the U.S. research published by non-U.S. affiliates and accepts responsibility for its contents. Periodic updates may be provided on companies/industries based on company specific developments or announcements, market conditions or any other publicly available information. Clients should contact analysts and execute transactions through a J.P. Morgan subsidiary or affiliate in their home jurisdiction unless governing law permits otherwise.

"Other Disclosures" last revised April 5, 2014.

Copyright 2014 JPMorgan Chase & Co. All rights reserved. This report or any portion hereof may not be reprinted, sold or redistributed without the written consent of J.P. Morgan.

This document is being provided for the exclusive use of BRIAN FAGAN at MACKAY SHIELDS LLC (AS AGT).