

# Fifth Third Capital Markets: Market Update

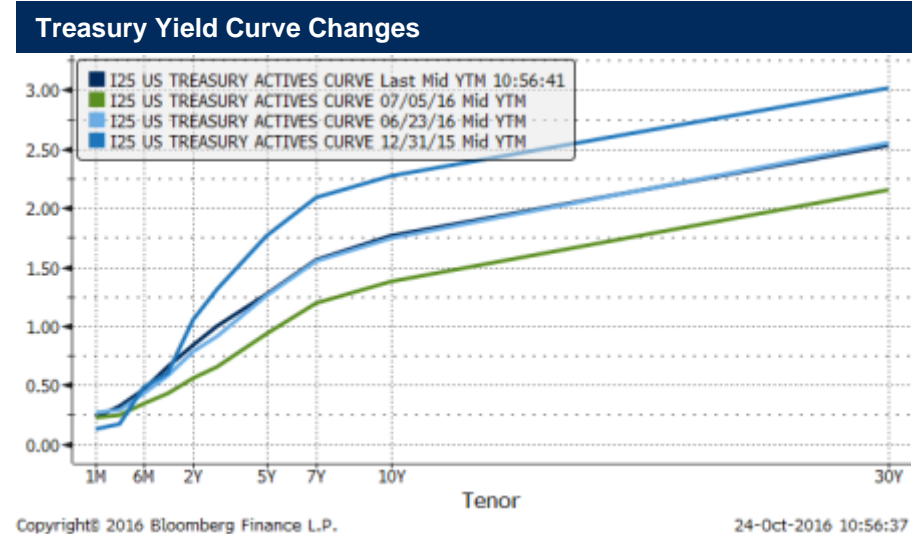
October 25, 2016



# Economic Conditions

- At a recent Boston Fed conference, Federal Reserve Chair Janet Yellen pondered whether a “high pressure economy” could reverse some of the damage done in the recession. Yellen cautioned, however, that running a low rate policy for too long “could have costs that exceed the benefits” by increasing financial risk or inflation.
- Fed officials have maintained an “easy” monetary policy as of late. The Fed cut rates to near zero in late 2008 and have since raised them only once in December of 2015, leaving policy on hold so far this year as they sought to shield the U.S. expansion from headwinds abroad. Despite those shocks, Yellen has maintained her focus on labor market slack, arguing that there were still more gains to be made despite the low unemployment rate.
- Minutes from the September 20-21 FOMC meeting showed that “several” members of the central bank’s policy setting panel judged that it would be appropriate to raise the benchmark lending rate “relatively soon” amid signs of a tightening labor market and expectations that inflation will move closer to the Fed’s 2% target.
- Furthering speculation that the Fed could raise interest rates in 2016, San Francisco President John Williams recently indicated that a move this year and “a few more in 2017 makes sense given the way the economy is performing”. New York Fed President Dudley echoed Williams’ comments about a 2016 hike but stated “no urgency for aggressive tightening”.
- The recent Labor Department report showed employers continuing to add to payrolls in September as record openings drew more Americans into the workforce and most found jobs, indicating the U.S. labor market is settling into a pace that will support the economy. The 156,000 increase for September followed a 167,000 August increase. The unemployment rate rose from 4.9% to 5.0% as the labor participation rate ticked up to a six month high.
- Core PCE (the Fed’s preferred measure of core inflation) was 1.8% QoQ for 2Q and was 1.7% YoY in August. Average Hourly Earnings YoY were 2.6% in September and have been at or above 2.0% for the last 19 months. Core CPI YoY was 2.2% in September and has been at or above 2.0% for 11 months.
- U.S. Retail Sales climbed +0.6% in September, the most in three months and following a revised -0.2% decline in August. During the first nine months of the year, Retail Sales have increased 2.9% compared with 2015.
- Fed Funds Futures are currently implying a 66% probability of a 25 bp rate increase by year end. Fed Funds Futures are currently implying a total of 25 bps of rate increases by May of 2017 and a total of 50 bps of rate increases by December of 2018.
- Current market conditions show projected one month LIBOR only rising by 27 bps in 2017 and only by 14 bps in 2018.

- Benchmark 3 year swap rates are only 62 bps above current one month LIBOR and benchmark 5 year swap rates are only 76 bps above current one month LIBOR.
- 10 year Treasury yields at 1.76% are up 16 basis points month to date, are up 40 bps from their historic lows of 1.36% in early July and are back to the levels seen on June 23 (before the UK referendum results were announced).
- The first estimate of 3Q GDP is scheduled to be released on October 28, Personal Income, Personal Spending and PCE data on October 31, ISM Manufacturing data on November 1, ISM Non-Manufacturing data on November 3 and Payroll, Unemployment and Average Hourly Earnings data on November 4.
- U.S. elections are scheduled for November 8 while the next scheduled FOMC meetings are November 1-2 (includes a statement release) and December 13-14 (includes a statement release, updated quarterly projections release and following press conference).



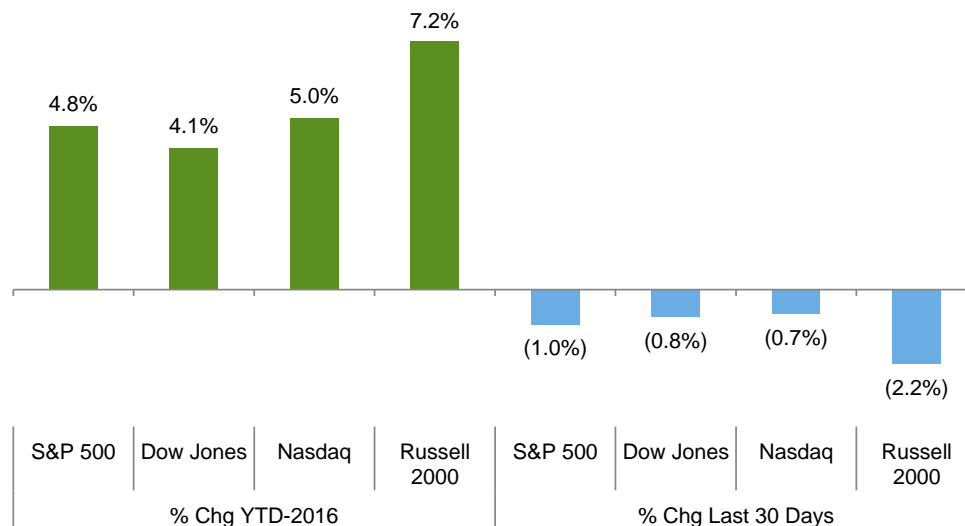
# Rate Information

	Current	2 Weeks Ago	2 Week Range	1 Month Ago	1 Month Range	2015 Year End	Period Range
2 Year Treasury Yield	0.84%	0.83%	7 bps	0.75%	13 bps	1.05%	50 bps
5 Year Treasury Yield	1.27%	1.26%	7 bps	1.16%	18 bps	1.76%	82 bps
10 Year Treasury Yield	1.76%	1.72%	8 bps	1.62%	24 bps	2.27%	91 bps
2-5 Year Treasury Spread	43 bps	43 bps	3 bps	40 bps	8 bps	71 bps	37 bps
2-10 Year Treasury Spread	92 bps	89 bps	8 bps	86 bps	15 bps	122 bps	49 bps
3 Year Sw ap Rate	1.15%	1.14%	8 bps	1.07%	14 bps	1.42%	64 bps
5 Year Sw ap Rate	1.29%	1.27%	8 bps	1.19%	18 bps	1.74%	81 bps
1 Year Forward 4 Year Sw ap Rate	1.36%	1.32%	8 bps	1.23%	19 bps	1.95%	99 bps
2 Year Forward 3 Year Sw ap Rate	1.41%	1.39%	7 bps	1.29%	22 bps	2.11%	110 bps
10 Year Sw ap Rate	1.60%	1.56%	7 bps	1.46%	22 bps	2.19%	94 bps
1 Year Forward 10 Year Sw ap Rate	1.69%	1.65%	8 bps	1.55%	25 bps	2.40%	106 bps
5 Year ATM Implied Cap Vol	50	52	2	57	9	46	42
3M5Y ATM Normal Sw aption Vol	60	65	7	65	7	73	38
	Current	2 Weeks Ago	2 Week Change	1 Month Ago	1 Month Change	2015 Year End	Period Change
Effective Fed Funds	0.41%	0.40%	1 bps	0.40%	1 bps	0.35%	6 bps
Dec. 2016 Fed Funds Futures	0.50%	0.50%	1 bps	0.48%	2 bps	0.89%	-39 bps
Dec. 2017 Fed Funds Futures	0.75%	0.77%	-2 bps	0.69%	5 bps	1.43%	-69 bps
One Month LIBOR	0.53%	0.53%	0 bps	0.52%	1 bps	0.43%	10 bps
12/31/16 One Month LIBOR Forward	0.65%	0.65%	0 bps	0.66%	-1 bps	1.68%	-103 bps
12/31/17 One Month LIBOR Forward	0.92%	0.92%	0 bps	0.87%	5 bps	2.20%	-128 bps
Three Month LIBOR	0.88%	0.88%	1 bps	0.85%	3 bps	0.61%	27 bps
12/31/16 Three Month LIBOR Forward	0.96%	0.96%	0 bps	0.93%	3 bps	1.87%	-91 bps
12/31/17 Three Month LIBOR Forward	1.13%	1.15%	-2 bps	1.07%	6 bps	2.36%	-123 bps

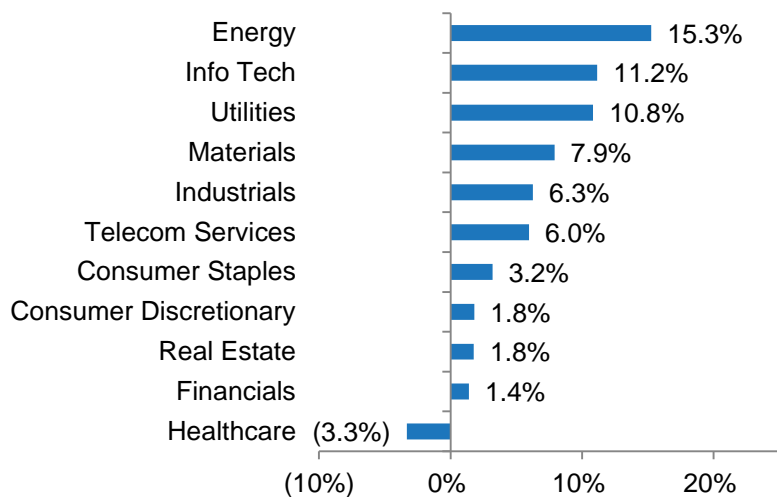
# Equity Market Overview

- 3Q16 earnings season is off to an encouraging start with 71% of Russell 3000 companies beating earnings estimates to-date, and analysts are predicting flat YoY profit growth vs. estimates from a month ago pointing toward a 1.5% decline
- Sizeable M&A transaction announcements have hit headlines this earnings season with AT&T, TD Ameritrade, and British-American Tobacco, among many others announcing deals
- Crude oil prices continue to hover around \$50, as prospects for an OPEC production agreement come into focus
- Volatility has crept back into markets, with the VIX Index eclipsing 15 in 7 of the opening 16 trading days of October
- Fed Fund futures are currently pointing toward a 70% probability of a rate hike in December
- Signs of a more stabilized US and global economy have trickled out of recent economic reports
- US Presidential election is poised to inject uncertainty into markets in addition to other headline risks entering 4Q16

## Market Performance (as of 10/21/16)



## YTD Sector Performance (as of 10/21/16)



## Russell 3000 Companies Earnings Snapshot (3Q16)

Russell 3000 Companies	# of Companies Reported			Sales Surprise		Earnings Surprise	
	Reported	Total	%	Positive	Negative	Positive	Negative
Energy	6	150	4%	33%	67%	83%	17%
Materials	22	133	17%	40%	60%	48%	52%
Industrials	64	387	17%	53%	47%	76%	23%
Cons Disc	53	427	12%	38%	62%	60%	40%
Cons Stap	16	115	14%	25%	75%	75%	25%
Healthcare	12	451	3%	75%	25%	83%	17%
Financials	162	523	31%	67%	33%	73%	26%
IT	44	437	10%	60%	40%	72%	28%
Telecomm	4	32	13%	25%	75%	75%	25%
Utilities	2	80	3%	100%	0%	100%	0%
Real Estate	10	188	5%	50%	50%	75%	25%
<b>TOTAL</b>	<b>395</b>	<b>2,923</b>	<b>14%</b>	<b>56%</b>	<b>44%</b>	<b>71%</b>	<b>28%</b>

# Equity Capital Markets Activity

## ECM Activity

- Equity new issue activity has stepped down slightly in October from robust August/September figures (26 total deals in October MTD vs. 72 for full month September / 60 August)
- Despite downward tick in deal activity, the ECM pipeline continues to build, as issuers look to opportunistically tap the equity markets in pockets of favorable price movements
- Convertible activity has been spotty YTD, yet pricing has been favorable; 2 CONVs priced MTD in October vs. 12 in September
- Filing activity continues to lag 2015 levels; however, the trend line is improving in 4Q16

## IPO Market

- IPO market activity has been robust in October, with 12 IPOs pricing MTD and a total of 27 deals pricing post-Labor Day
  - Investor demand has been more balanced in October vs. very favorable pricing in September, with 3 IPOs pricing above the range (out of 12) in Oct. vs. 7 (out of 15) in Sept.
- After market performance has been stable, with October IPOs trading up 13% on average on the first day of trading and 8% from offer to current
- IPO filing activity since the beginning of September has yielded 27 issuers vs. 40 in the same 2015 period

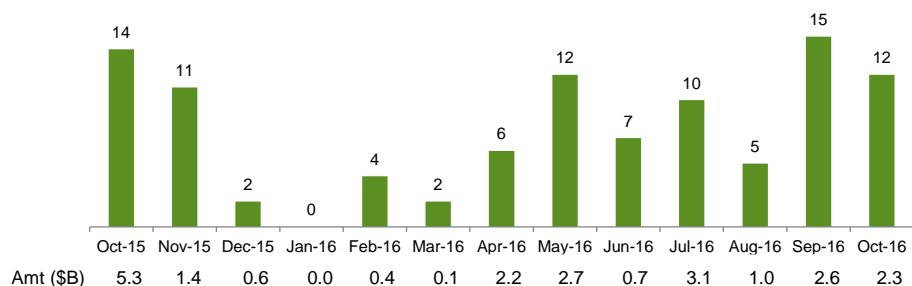
## Follow-on Market

- Follow-on market has been slower in October, with 12 deals coming to market for \$3.3B vs. 36 deals for \$11.0B Sept. MTD
- Following a surge of bought deals in August (60% of deals), accelerated offerings have seen an uptick since the beginning of September, accounting for 56% of follow-ons
  - Bought deals accounted for 35% of activity since September, as compared for 50% for all of 3Q16 and 46% for 2016-YTD
- Shelf filing activity in October has slowed MTD as compared to September and October 2015 (31 filings vs. 47/38, respectively)

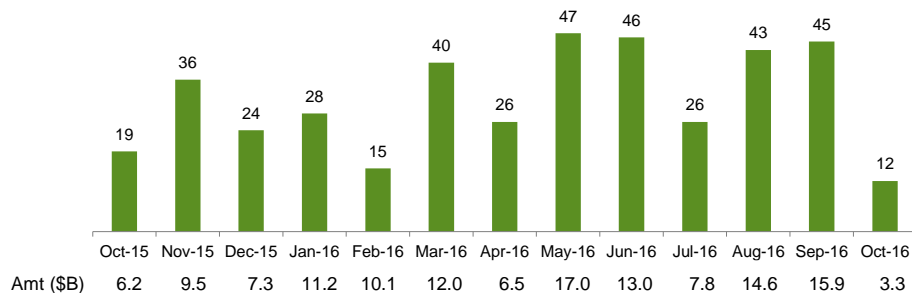
## YTD-Equity Issuance

Deal Type	2016-YTD			2015-YTD		
	Proceeds (\$B)	Mkt Share %	# Deals	Proceeds (\$B)	Mkt Share %	# Deals
IPOs	\$15.2	10%	73	\$30.1	15%	131
Follow-ons	\$111.4	72%	328	\$143.0	71%	462
Convertibles	\$28.3	18%	55	\$29.1	14%	55
<b>Total</b>	<b>\$154.9</b>		<b>456</b>	<b>\$202.2</b>		<b>648</b>

## IPO Issuance by Month



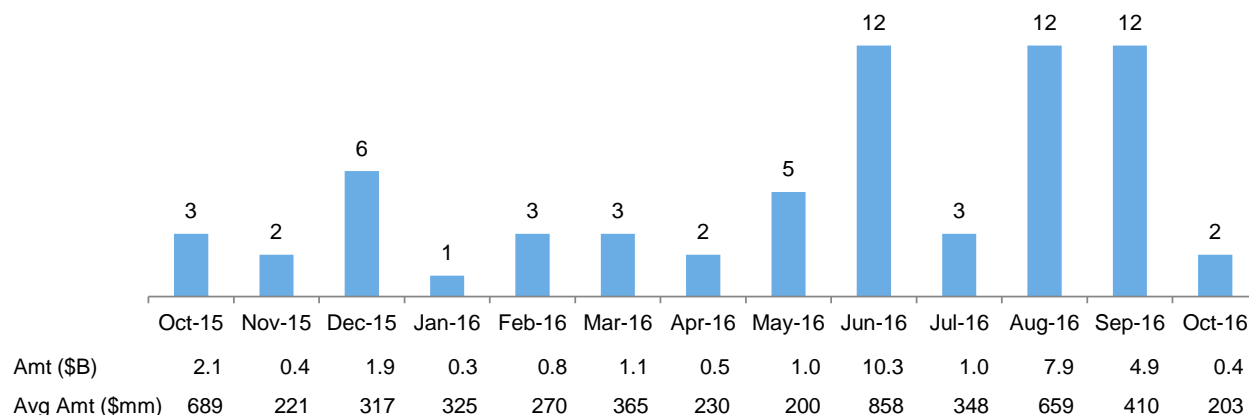
## Follow-on Issuance by Month



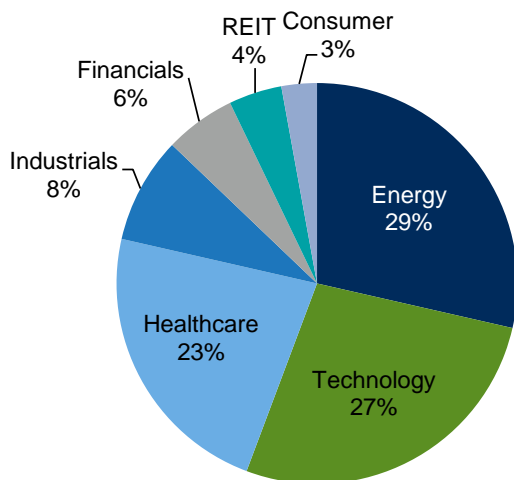
# Convertible Market Activity

- Convertible market activity has been spotty during 2016, and that trend has continued in October, with just 2 convertibles coming to market raising \$405mm vs. 12 for \$4.9B in September
- Acquisition finance has spurred the majority of convertible issuance, accounting for 10 of the 26 deals to price since the beginning of August
- Since the beginning of August, 12 of the 26 deals to successfully price were upsized, evidencing the imbalance between supply and demand for convertibles remains

## Convertible Market Activity by Month (# deals)



## LTM Issuance by Sector (# deals)



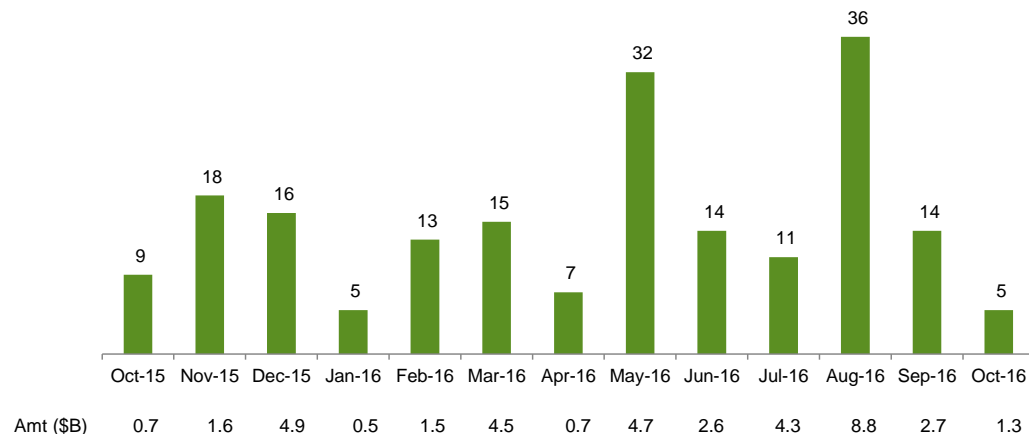
## Recent Convertible Transactions Overview

Pricing Date	Issuer	Size (\$mm)	Mkt Cap (\$mm)	% Mkt Cap	Convertible Type	Maturity (yrs)	Coupon (%)	Conv Prem (%)	Call Spread Prem (%)
10/07/16	Macquarie Infrastructure	\$350	\$6,758	5%	Cash Pay	6	2.00%	35%	-
10/04/16	Resolute Energy	55	396	14%	Preferred	NA	8.13%	15%	-
09/30/16	Arbor Realty Trust	75	392	19%	Cash Pay	3	6.50%	10%	-
09/29/16	Chesapeake Energy	1,250	4,755	26%	Cash Pay	9	5.50%	40%	-
09/29/16	DTE Energy	600	16,696	4%	Preferred	NA	6.50%	25%	-
09/27/16	Goldman Sachs BDC	115	809	14%	Cash Pay	6	4.50%	10%	-
09/27/16	Great Plains Energy	863	5,632	15%	Mandatory	NA	7.00%	20%	-
09/16/16	Wheeler REIT	40	109	37%	Preferred	NA	8.75%	36%	-
09/14/16	Oasis Petroleum	300	1,750	17%	Cash Pay	7	2.63%	35%	-
09/09/16	Adv Micro Devices	805	4,952	16%	Cash Pay	9	2.13%	33%	-
09/08/16	PDC Energy	200	3,478	6%	Cash Pay	5	1.13%	35%	-
09/07/16	Insulet	345	2,523	14%	Cash Pay	5	1.25%	33%	-
Average		\$416	\$4,021	16%		6	4.67%	27%	
Median		\$323	\$3,000	15%		6	5.00%	33%	

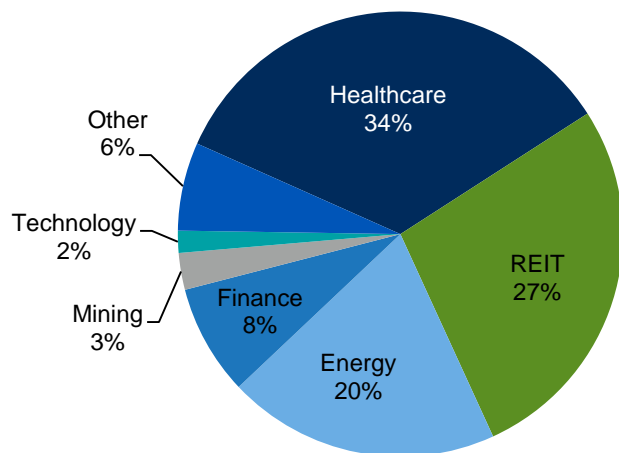
# At-the-Market Offering Update

- At-the-Market (“ATM”) offering program filings have increased YTD vs. the same 2015 period (152 vs. 149)
  - Activity in October has slowed vs. recent trends, with only 5 filings in the month as compared to 36 in August and 14 in September
- ATM popularity continues to grow, as seasoned issuers seek the ability to opportunistically offer equity with ease during favorable stock price movements
  - Healthcare led LTM ATM filings from a sector perspective, buoyed mostly by Biotech/Pharma, which comprised 84% of all Healthcare ATM filings
  - REITs and Energy continue to comprise a sizeable portion of ATMs filed, making up 27% and 20% of ATM announcements in the LTM, respectively

## ATM Filing Activity by Month



## LTM ATM Announcements by Sector (# of ATM Filings)



## Recent ATM Filing Details

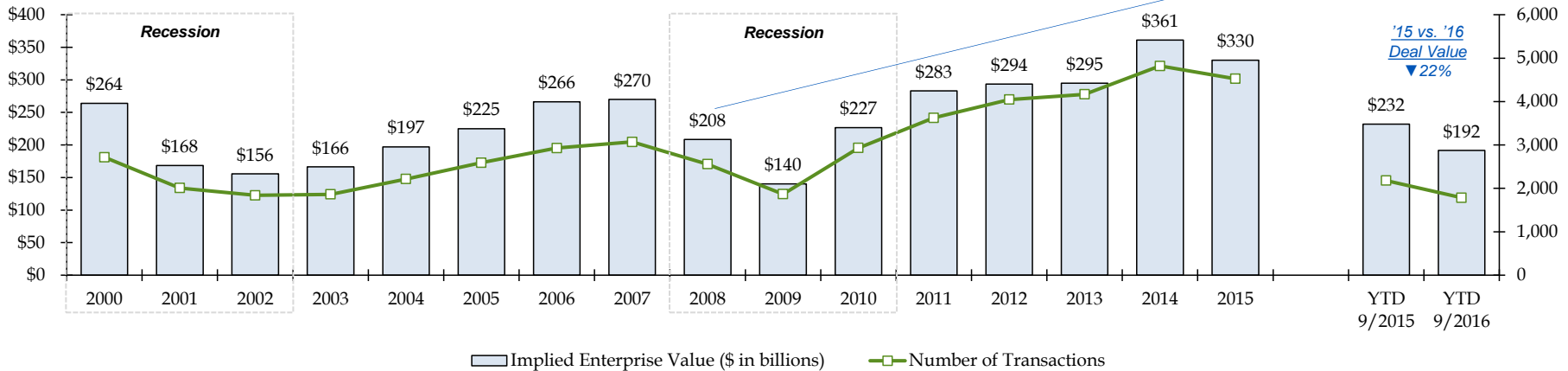
Filing Date	Issuer	Amt (\$mm)	Mkt Cap @ Offer (\$mm)	Offer % of Mkt Cap	Sector
10/11/16	Alexandria Real Estate	\$600	\$8,124	7.4%	REIT
10/11/16	National Storage Affiliates	200	665	30.1%	REIT
10/11/16	Vericel	25	69	36.4%	Healthcare
10/04/16	Sunoco	400	2,783	14.4%	Energy
10/03/16	Great Ajax	50	216	23.1%	REIT
09/26/16	Xbiotech	50	415	12.1%	Healthcare
09/19/16	VEREIT	750	9,663	7.8%	REIT
09/19/16	Xencor	40	1,023	3.9%	Healthcare
09/16/16	Valero Energy Partners	350	2,779	12.6%	Energy
09/15/16	Aerie Pharmaceuticals	50	563	8.9%	Healthcare
09/12/16	Corporate Office Properties	200	2,659	7.5%	REIT
09/09/16	Coeur Mining	200	2,406	8.3%	Mining
09/09/16	DDR	250	6,648	3.8%	REIT
09/08/16	DXP Enterprises	25	402	6.2%	Machinery
09/08/16	LGI Homes	25	830	3.0%	Const/Build
	Average	\$214	\$2,616	12.4%	
	Median	\$200	\$1,023	8.3%	

# U.S. Middle Market M&A

M&A Rally Takes a Pause, However Near-Term M&A Conditions Remain Favorable

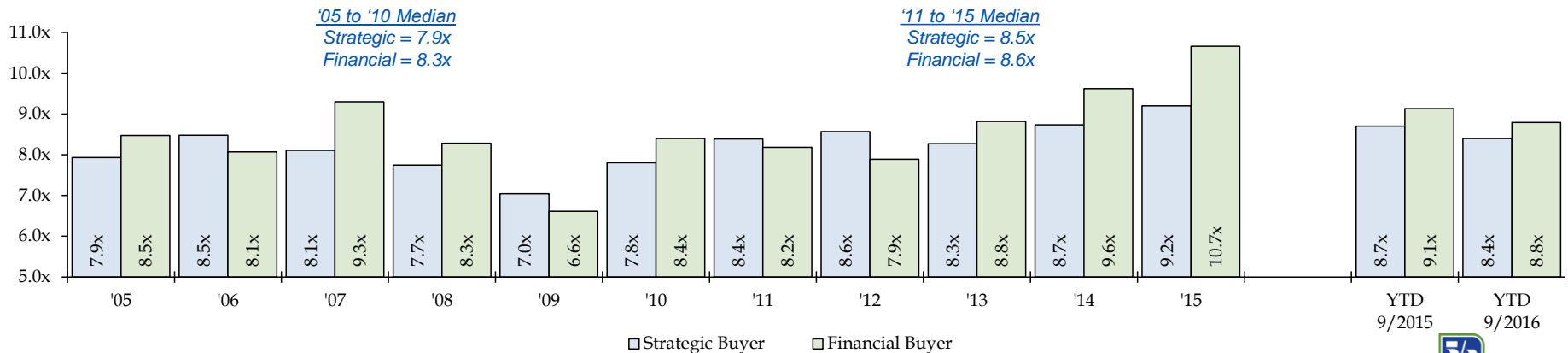
## U.S. Middle Market M&A Activity <sup>[1]</sup>

- Historically, M&A cycles have not extended past seven years; 2016 is year six of the cycle
  - Relative to past cycles, interest rates are lower, corporate balance sheets are stronger, and private equity firms have more untapped capital
- 2016 has demonstrated signs that the buyout cycle is slowing, however, plenty of positive drivers remain



## U.S. Middle Market M&A Median Enterprise Value / LTM EBITDA <sup>[1]</sup>

- Purchase multiples by both financial and strategic buyers remain near their five-year median
- Deal multiples are expected to remain elevated due to strong competition for high quality assets as strategic corporate and private equity firms continue to seek acquisitions to fuel growth and deploy capital



[1] Middle market defined by transactions with an enterprise value between \$25 and \$500 million; only includes transactions with a publicly disclosed enterprise value  
Source: Pitchbook and S&P Capital IQ

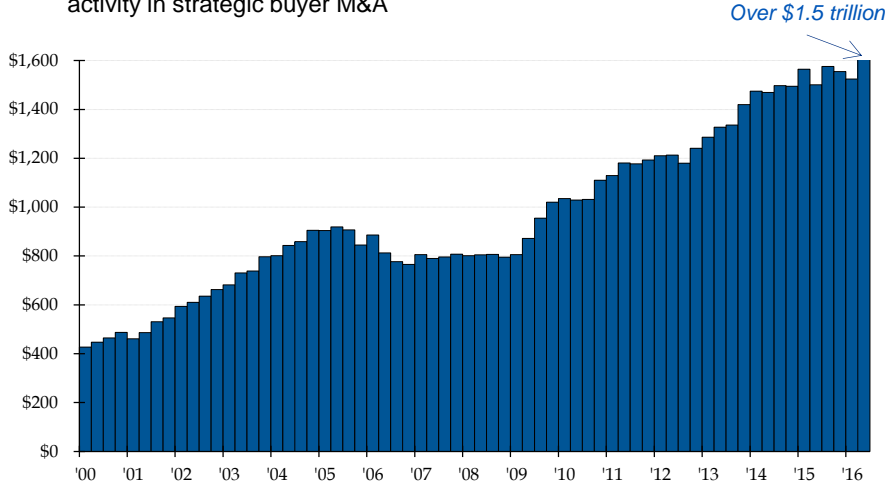


# U.S. Middle Market M&A

## Significant Capital Available to Complete Acquisitions

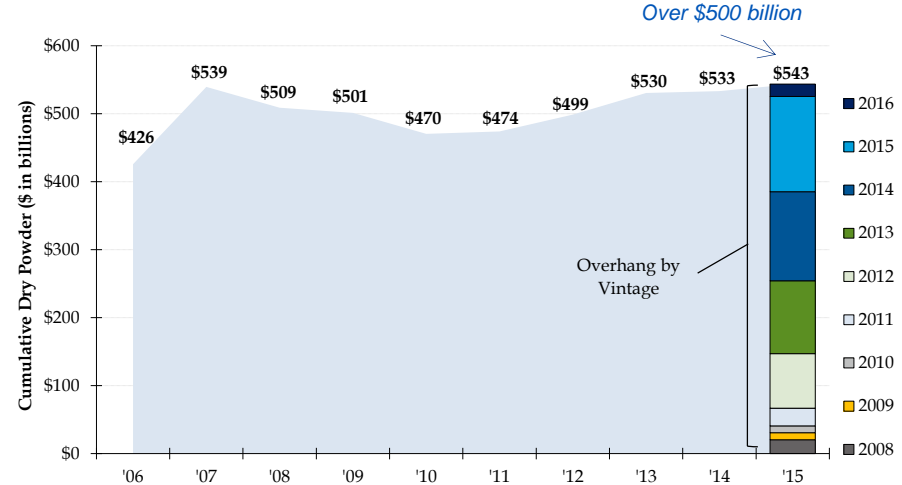
### S&P 500 - Aggregate Corporate Cash & Equivalents (\$ in billions) [1]

- U.S. corporate cash balances remain near record levels and are driving activity in strategic buyer M&A



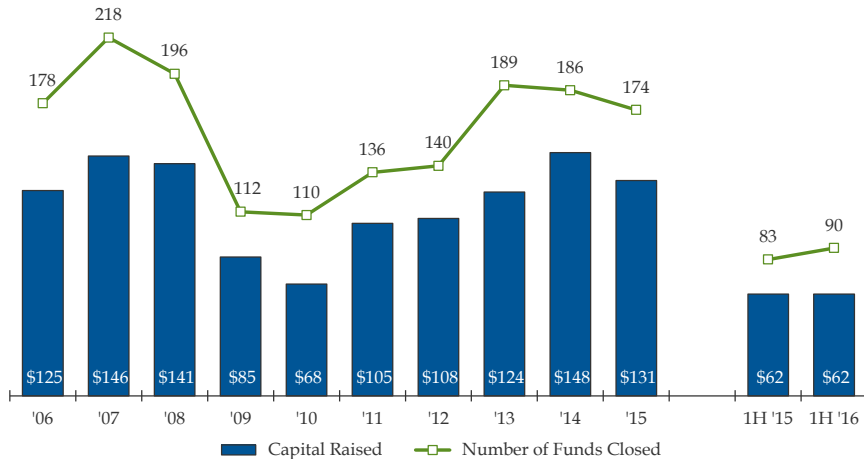
### U.S. Private Equity Capital Overhang by Year (\$ in billions) [2]

- Private equity firms continue to sit on a built up level of dry powder



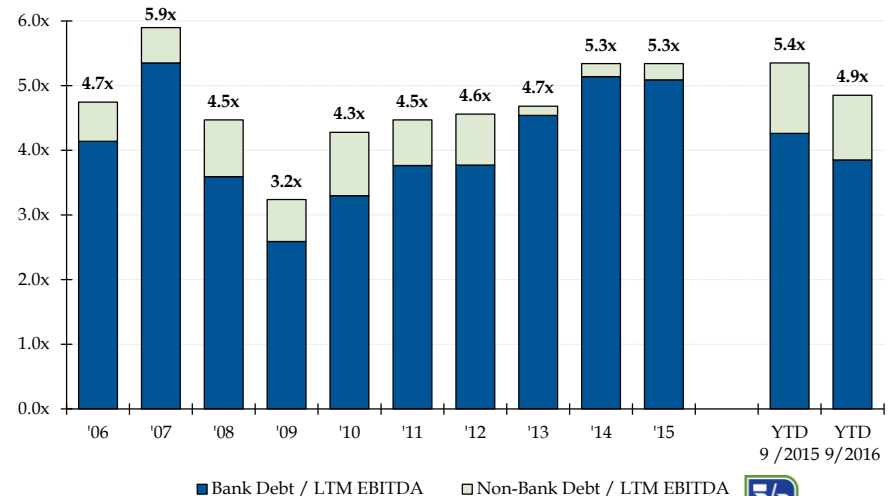
### U.S. Middle Market PE Fundraising by Year (\$ in billions) [3]

- Strong middle market private equity ("PE") fundraising indicates a stable level of dealmaking going forward
  - 92% of PE funds hit their fundraising target in 1H 2016, a historical high



### Average Multiples of U.S. Middle Market LBO Loans [4]

- Debt usage is relatively low, however the credit market remains favorable for the right borrower



[1] Excludes financial services companies; [2] As of 6/30/16; the LP reporting cycle is two quarters behind the most recent quarter ended

[3] Private equity firms focused on buyouts ranging from \$25 to \$500 million [4] Issuers with a LTM EBITDA less than \$50 million

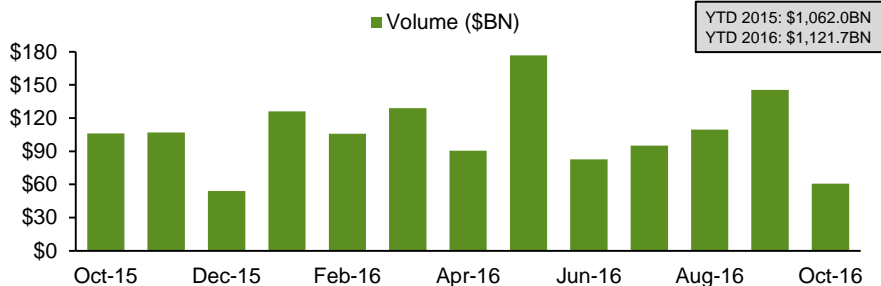
Source: Pitchbook and S&P Capital IQ

# Investment Grade Bond Market Update

## Commentary

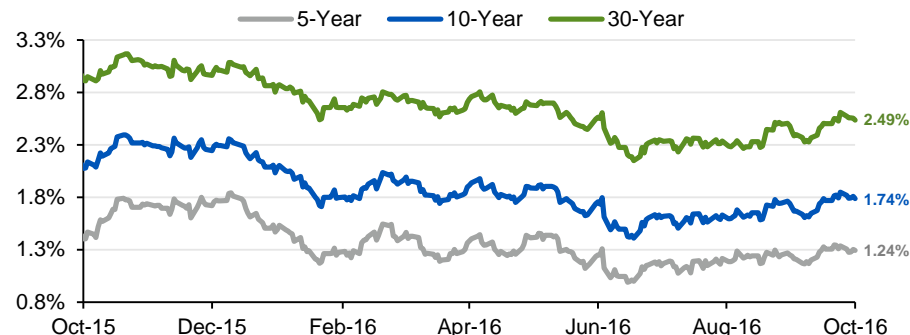
- Last week the investment grade bond market experienced its strongest week in a month, as supply totaled 28 tranches for \$28.6 billion, compared to 30 tranches totaling \$19.8 billion in the prior week. Investment grade funds experienced strong inflows for the week at \$2.4 billion, raising the year-to-date net flows to \$41.1 billion. IG spreads fell by 1 bps for the week, complementing a fall in Treasury yields across the curve and leading to a decrease in IG yields of 5 bps. YTD volume now stands at \$1,121.7 billion, compared to prior year's tally at this point of \$1,062.0 billion, but down 3.5% in deal volume perspective (1,235 tranches priced at 10/21/16 vs. 1,280 at 10/21/15).
- Jumbo issuance was prevalent last week, with five issuers coming to market for \$2.5 billion or greater. **Bank of America** led the week's largest issuance on Tuesday with a three-part \$5.0 billion deal for general corporate purposes. The issuance received mixed interest from investors, receiving an order book of \$14.0 billion (2.8x oversubscribed, compared to the weekly average of 3.0x). Of these tranches, the 5.5-year floating rate notes had the best reception, with order book oversubscription of 4.0x.
- Mondelez International** (rated Baa1/BBB) followed on Wednesday with a 3-part \$3.75 billion issuance for general corporate purposes. The issuance received low interest from investors, amassing an order book of only \$8.4 billion (2.24x oversubscribed). Given recent investor interest in triple-B names, this reception is somewhat lower than expected. However, the Company was still able to achieve favorable pricing, as its three year tranches priced with a flat NIC and the 5-year tranche priced with a NIC of negative 3 bps.
- Average order oversubscriptions for the week were 3.0x, the lowest in eight weeks and below the YTD average of 3.5x. In addition, average NICs last week were the worst in over a month at 4.9 bps, with only three tranches pricing at a negative NIC. The strongest execution of the week came from **Nike's** \$1.0 billion 10-year issue at negative 5 bps.
- Treasury yields fell across the curve for the week, ending the two week trend of rising yields: the 5-year fell by 4.3 bps to 1.24%, the 10-year by 6.3 bps to 1.74% and the 30-year by 7.4 bps to 2.49%. Spreads were mixed throughout the week, but ended slightly down at 1 bps each across the spectrum.
- Due to the corporate blackout period, issuance was highly focused on financial issuers (comprising \$20.3 billion or 70.9% of total issuance) and Yankee issuers (comprising \$4.5 billion or 15.7% of total issuance). As US domestic issuers start to release earnings, it is likely that issuance in the IG market will pick up more broadly in the coming weeks.

## Monthly Issuance

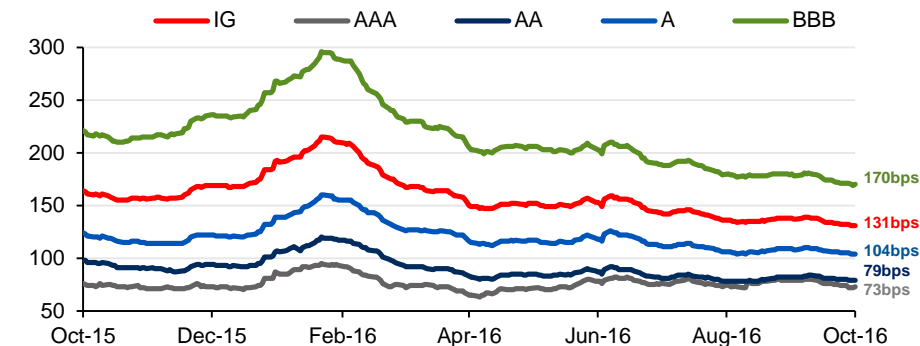
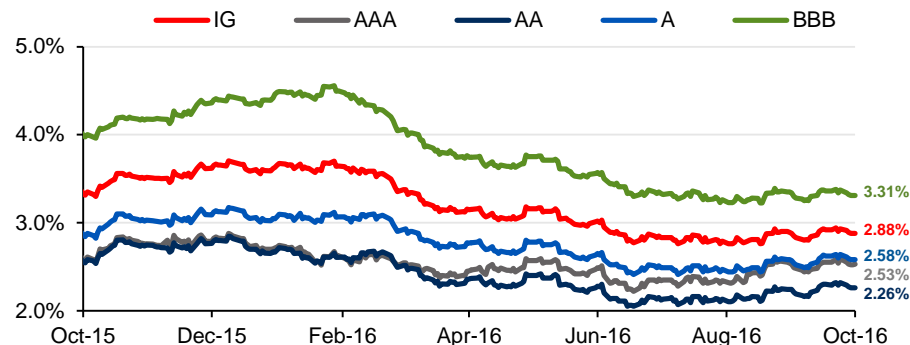


Source: Fifth Third Securities / LCD / IFR Markets

## Treasuries (%)

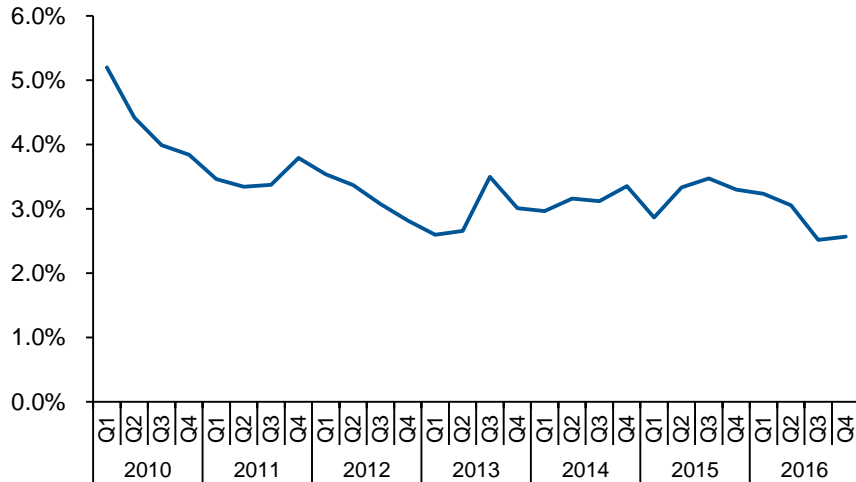


## Yield (%) / Spread (bps)

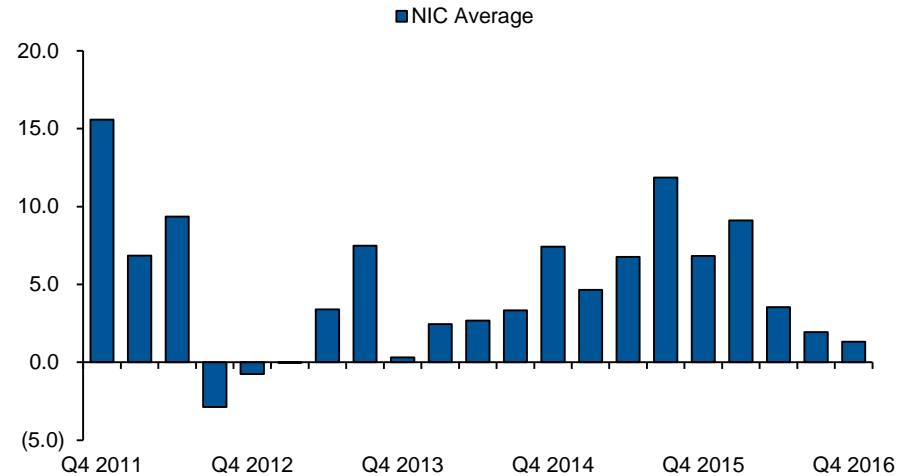


# U.S. Investment Grade Bonds at a Glance – Historical<sup>[1]</sup>

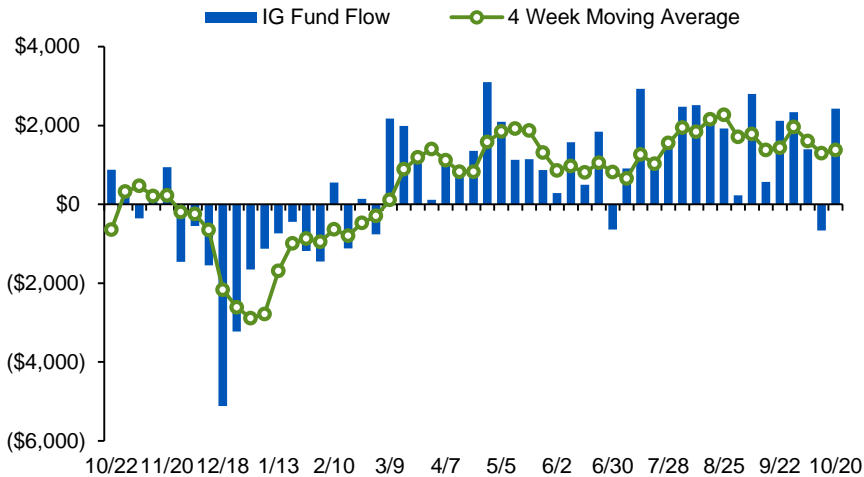
## Weighted Average Yield



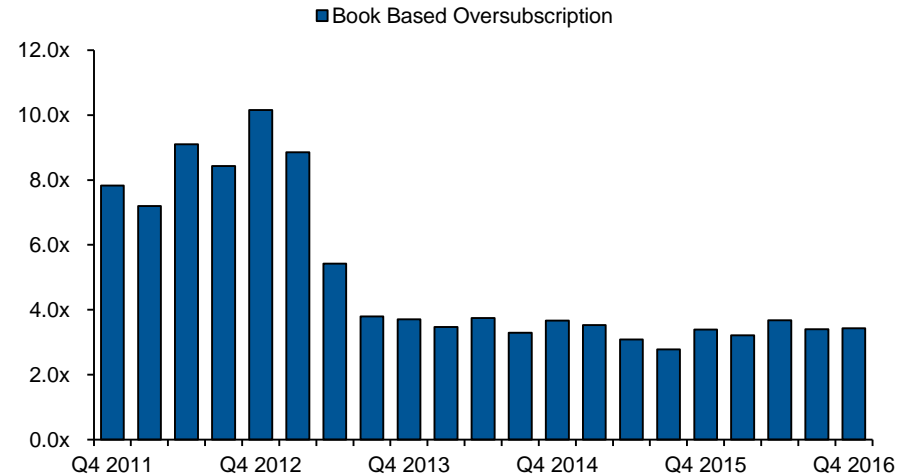
## NIC Average



## IG Fund Flows



## Book Based Oversubscription



Source: Fifth Third Securities / LCD / IFR Markets  
 Note: \$ in thousands  
 [1] Q4 2016 data as of October 21<sup>st</sup>, 2016

# Recent Investment Grade Bond Transactions

\$ in Millions

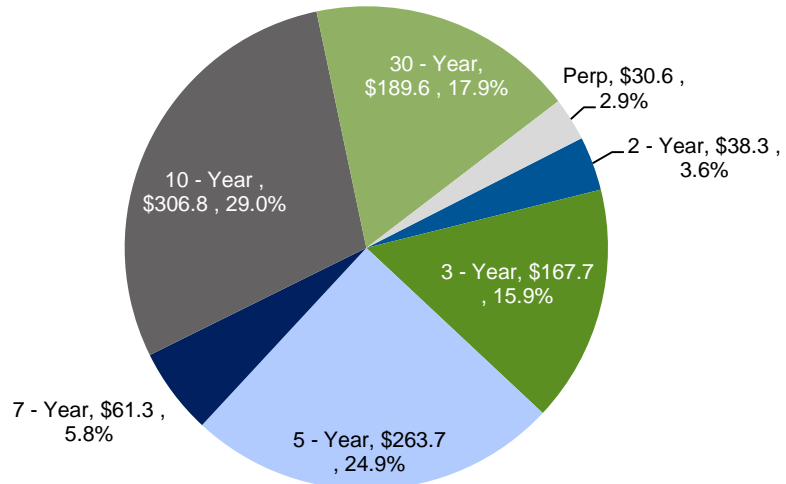
Issue Date	Issuer	Sector	Use of Proceeds	Amount	Coupon	Security	Tenor	Rating Moody's / S&P	At-Issue			Execution	
									Price	Yield	Spread	NIC	Oversubscription
10/21/16	Banco de Credito del Peru	Bank	General Corporate Purposes	\$300	2.250%	Sr Notes	3	Baa2 / BBB+	99.695	2.356%	138	12.5	7.0x
10/20/16	Enerjis Americas	Utilities	Refinancing	\$600	4.000%	Sr Notes	10	Baa3 / BBB	98.364	4.202%	245	N/A	7.8x
10/20/16	Guardian Life Global Funding	Insurance	General Corporate Purposes	\$300	1.950%	FA Backed Notes (144A)	5	Aa2 / AA+	99.934	1.964%	72	1.0	1.7x
10/20/16	Vakibank	Bank	General Corporate Purposes	\$500	5.500%	Sr Notes (144A)	5	Ba1 / BBB-	99.510	5.610%	MS+435	21.0	2.6x
10/19/16	Mondelez International	Food & Beverage	General Corporate Purposes	\$1,750	1.625%	Sr Notes (144A)	3	Baa1 / BBB	99.784	1.699%	75	0.0	2.1x
10/19/16	Mondelez International	Food & Beverage	General Corporate Purposes	\$500	3mL+61	Sr Notes (144A)	3	Baa1 / BBB	100.000	--	3mL+61	0.0	1.7x
10/19/16	Mondelez International	Food & Beverage	General Corporate Purposes	\$1,500	2.000%	Sr Notes (144A)	5	Baa1 / BBB	99.631	2.078%	85	(2.5)	2.5x
10/19/16	Morgan Stanley	Bank	General Corporate Purposes	\$2,500	3mL+140	Sr Notes	7	A3 / BBB+	100.000	--	3mL+140	5.5	2.0x
10/19/16	RWJ Barnabas Health	Healthcare Facilities	Refinancing	\$100	2.954%	Sr Notes	10	A1 / A+	100.000	2.954%	120	N/A	3.2x
10/19/16	RWJ Barnabas Health	Healthcare Facilities	Refinancing	\$395	3.949%	Sr Notes	30	A1 / A+	100.000	3.949%	143	N/A	3.2x
10/19/16	<b>United Parcel Service</b>	<b>Transportation</b>	<b>General Corporate Purposes</b>	<b>\$500</b>	<b>2.400%</b>	<b>Sr Notes</b>	<b>10</b>	<b>A1 / A+</b>	<b>99.964</b>	<b>2.404%</b>	<b>65</b>	<b>3.0</b>	<b>4.4x</b>
10/19/16	<b>United Parcel Service</b>	<b>Transportation</b>	<b>General Corporate Purposes</b>	<b>\$500</b>	<b>3.400%</b>	<b>Sr Notes</b>	<b>30</b>	<b>A1 / A+</b>	<b>99.123</b>	<b>3.447%</b>	<b>93</b>	<b>0.0</b>	<b>3.8x</b>
10/19/16	Wells Fargo	Bank	General Corporate Purposes	\$3,500	3.000%	Sr Notes	10	A2 / A	99.769	3.027%	130	6.0	N/A
10/18/16	Bank of America	Bank	General Corporate Purposes	\$2,000	2.503%	Sr Notes	6	Baa1 / BBB+	100.000	2.503%	127	9.5	2.5x
10/18/16	Bank of America	Bank	General Corporate Purposes	\$500	3mL+118	Sr Notes	6	Baa1 / BBB+	100.000	--	3mL+118	9.5	4.0x
10/18/16	Bank of America	Bank	General Corporate Purposes	\$2,500	3.248%	Sr Notes	11	Baa1 / BBB+	100.000	3.248%	150	5.0	2.8x
10/18/16	Jackson National Life Global Funding	Insurance	General Corporate Purposes	\$350	2.100%	FA Backed Notes (144A)	5	A1 / AA	99.939	2.113%	88	2.0	1.6x
10/18/16	Nike	Apparel	General Corporate Purposes	\$1,000	2.375%	Sr Notes	10	A1 / AA-	99.858	2.391%	65	(4.5)	3.0x
10/18/16	Nike	Apparel	General Corporate Purposes	\$500	3.375%	Sr Notes	30	A1 / AA-	98.899	3.434%	93	(4.0)	4.0x
10/18/16	Turk Eximbank	Bank	General Corporate Purposes	\$500	5.375%	Sr Notes	7	Ba1 / BBB-	99.820	5.410%	MS+400	N/A	2.5x
10/17/16	<b>Citigroup Inc</b>	<b>Bank</b>	<b>General Corporate Purposes</b>	<b>\$3,000</b>	<b>3.200%</b>	<b>Sr Notes</b>	<b>10</b>	<b>Baa1 / BBB+</b>	<b>99.941</b>	<b>3.207%</b>	<b>145</b>	<b>7.0</b>	<b>1.5x</b>
10/17/16	Industrial and Commercial Bank of China	Bank	General Corporate Purposes	\$1,000	2.452%	Sr Notes	5	A1 / A	100.000	2.452%	120	6.0	4.5x
10/17/16	JPMorgan Chase & Co	Bank	General Corporate Purposes	\$2,000	3mL+123	Sr Notes	7	A3 / A-	100.000	--	3mL+123	0.0	N/A
10/17/16	Korea National Oil Corporation	Integrated Energy	General Corporate Purposes	\$350	2.000%	Sr Notes (144A)	5	Aa2 / AA	99.556	2.094%	83	4.0	2.0x
10/17/16	Korea National Oil Corporation	Integrated Energy	General Corporate Purposes	\$650	2.500%	Sr Notes (144A)	10	Aa2 / AA	99.342	2.575%	80	7.0	1.5x
10/17/16	New York Life Global Funding	Insurance	General Corporate Purposes	\$500	1.500%	FA Backed Notes (144A)	3	Aaa / AA+	99.974	1.509%	53	0.0	0.7x
10/17/16	New York Life Global Funding	Insurance	General Corporate Purposes	\$250	3mL+39	FA Backed Notes (144A)	3	Aaa / AA+	100.000	--	3mL+39	0.0	3.6x
10/17/16	Turkiye Is Bankasi	Bank	General Corporate Purposes	\$600	5.500%	Sr Notes	6	Ba1 / BBB-	100.000	5.500%	425	29.0	2.1x
10/13/16	CSX Corp	Transportation	Refinancing / Bonds	\$700	2.600%	Sr Notes	10	Baa1 / BBB+	99.596	2.646%	90	1.0	2.4x
10/13/16	CSX Corp	Transportation	Refinancing / Bonds	\$800	3.800%	Sr Notes	30	Baa1 / BBB+	99.431	3.832%	135	0.0	2.8x
10/13/16	CSX Corp	Transportation	Refinancing / Bonds	\$700	4.250%	Sr Notes	50	Baa1 / BBB+	99.751	4.262%	178	(3.0)	3.6x
10/13/16	Ecolab	Chemicals	General Corporate Purposes	\$750	2.750%	Sr Notes	10	Baa1 / A-	99.685	2.736%	100	(23.0)	4.3x
10/13/16	Ecolab	Chemicals	General Corporate Purposes	\$250	3.700%	Sr Notes	30	Baa1 / A-	99.549	3.725%	125	(25.0)	10.0x
10/13/16	Global Bank Corp	Bank	General Corporate Purposes	\$550	4.500%	Sr Notes (144A)	5	NR / BBB-	99.942	4.513%	325	N/A	2.2x
10/13/16	Toyota Motor Credit	Financing Arm	General Corporate Purposes	\$1,000	1.550%	Sr Notes	3	Aa3 / AA-	99.950	1.567%	58	4.0	1.9x
10/13/16	Toyota Motor Credit	Financing Arm	General Corporate Purposes	\$500	3mL+44	Sr Notes	3	Aa3 / AA-	100.000	--	3mL+44	4.0	1.8x
10/13/16	Toyota Motor Credit	Financing Arm	General Corporate Purposes	\$500	2.250%	Sr Notes	7	Aa3 / AA-	99.736	2.291%	75	4.0	2.0x
10/13/16	The Export-Import Bank of Korea (KEXIM)	Financial Agency	General Corporate Purposes	\$750	1.500%	Sr Notes	3	Aa2 / AA	99.685	1.608%	60	(1.0)	2.0x
10/13/16	The Export-Import Bank of Korea (KEXIM)	Financial Agency	General Corporate Purposes	\$750	3mL+46	Sr Notes	3	Aa2 / AA	100.000	--	3mL+46	(1.0)	1.9x
10/13/16	The Export-Import Bank of Korea (KEXIM)	Financial Agency	General Corporate Purposes	\$300	1.875%	Sr Notes	5	Aa2 / AA	99.564	1.967%	70	(3.0)	2.2x
<b>Total \$ Volume</b>				<b>\$36,195</b>				<b>Min</b>	98.364	1.509%		(25.0)	0.7x
<b>Total Deals</b>				<b>40</b>				<b>Max</b>	100.000	5.610%		29.0	10.0x
<b>Median Deal Size</b>				<b>\$575</b>				<b>Median</b>	99.896	2.646%		1.0	2.5x
<b>Average Deal Size</b>				<b>\$905</b>				<b>Average</b>	99.750	3.008%		2.1	3.0x

Source: Fifth Third Securities / LCD / IFR Markets  
Note: bolded transactions represent Fifth Third Securities managed offerings

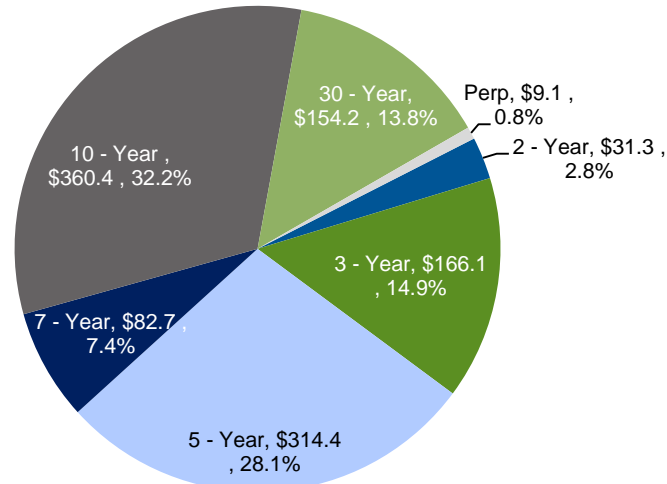
# Comparative Issuance – YTD 2015 vs. YTD 2016<sup>[1]</sup>

Investment grade bond supply for YTD 2016 consisted of 1,235 deals for \$1,121.7 billion, compared to 1,280 deals for \$1,062.0 billion for YTD 2015

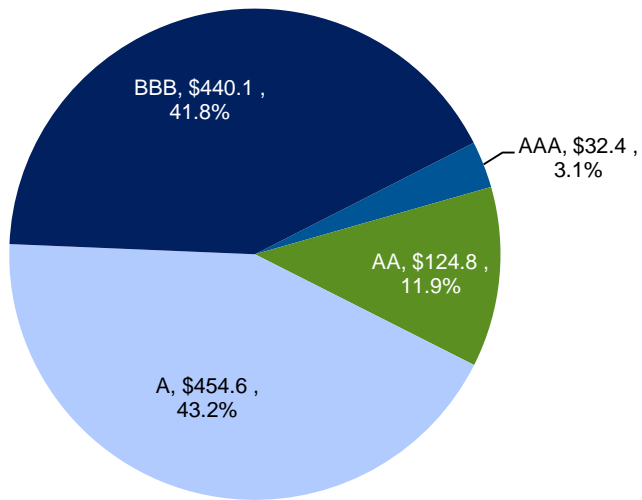
## Volume by Tenor – YTD 2015



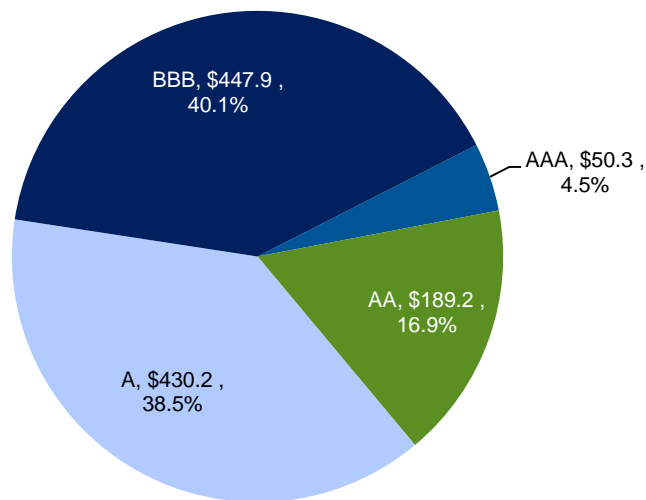
## Volume by Tenor – YTD 2016



## Volume by Rating – YTD 2015



## Volume by Rating – YTD 2016

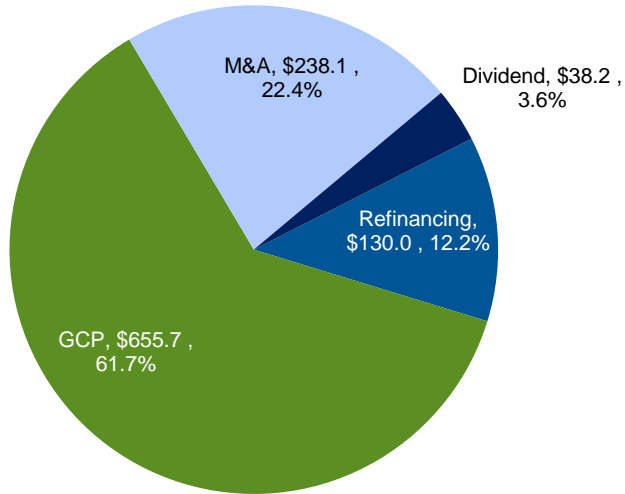


Source: Fifth Third Securities / LCD / IFR Markets  
Note: \$ in billions

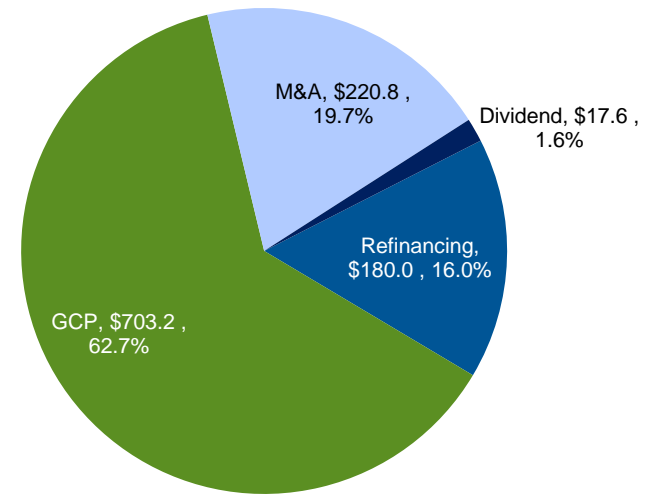
[1] YTD data as of October 21<sup>st</sup> for 2015 and 2016

# Comparative Issuance – YTD 2015 vs. YTD 2016<sup>[1]</sup>

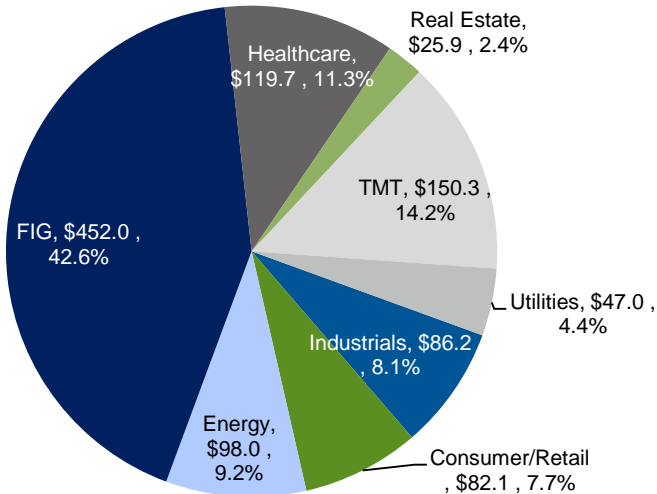
## Volume by Use of Proceeds – YTD 2015



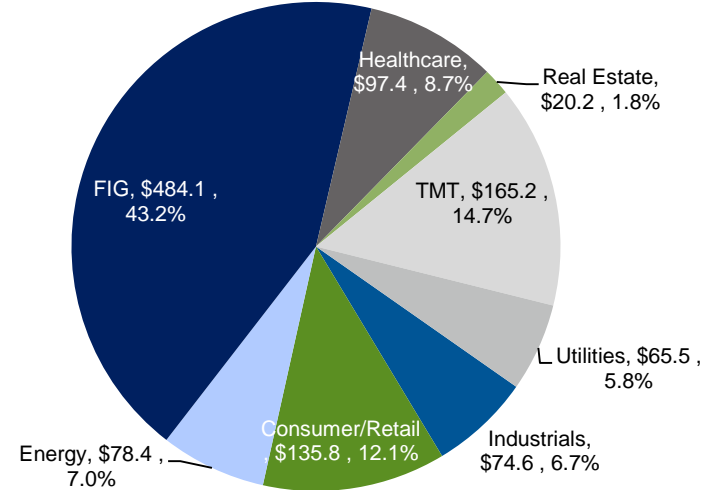
## Volume by Use of Proceeds – YTD 2016



## Volume by Sector – YTD 2015



## Volume by Sector – YTD 2016



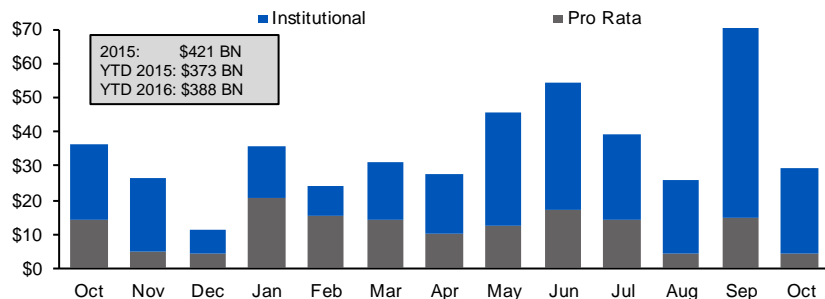
Source: Fifth Third Securities / LCD / IFR Markets  
 Note: \$ in billions  
 [1] YTD data as of October 21<sup>st</sup> for 2015 and 2016

# Leveraged Finance Market Snapshot

## Institutional Loan

- Conditions in the institutional loan market remain highly favorable through the first three weeks of October, evidenced by ongoing opportunistic activity and low average new issue yields. Through last Thursday, roughly \$20 billion of the \$25 billion in institutional volume this month has been of the opportunistic variety, including \$9.2 billion of loans supporting dividend activity (highest monthly figure in over two years). Prior to October, we had only seen \$24 billion of dividend recap transactions all year and \$28 billion in all of 2015.
- Average new issue yields for single-B transactions is at 5.28%, 7 bps wide of the prior week, while for double-B transactions the average is 3.78%, up 5 bps week over week. Both figures remain well below their respective year to date averages, and continue to be attractive from a historical perspective.
- The supply-demand equation still favors issuers with demand topping supply by \$9 billion in September. While that's inside of the \$12 billion figure from August, it's still about 50% higher than the still-sizable \$6.5 billion imbalance from July. For all of Q3, demand exceeded supply by \$28 billion. All of the recent issuance that's hit the market has done little to boost net supply given heavy repayments. September had \$23 billion of repayments, compared to a 2016 average of \$18.7 billion. Given the ongoing supply-demand imbalance, LCD's secondary composite index set another new year to date high last week, and is now over 97.
- Looking forward, demand should continue to be robust. Investors are actively moving towards US loan funds, which saw a net inflow of \$1.4 billion in September, the highest figure since March 2014. September marked the third straight monthly net gain. On the CLO side, September's \$8.2 billion in CLO prints marked a 15 month high as issuers pushed to complete transactions ahead of the new risk-retention rules taking effect on October 14<sup>th</sup>.
- Finally, as we enter the last 10 weeks of the year, the forward calendar of institutional deals stands at about \$45 billion from 65 deals (~60% M&A), down about \$15 billion from its peak level back in September, but still roughly in line with the 2016 average.

## Monthly Issuance

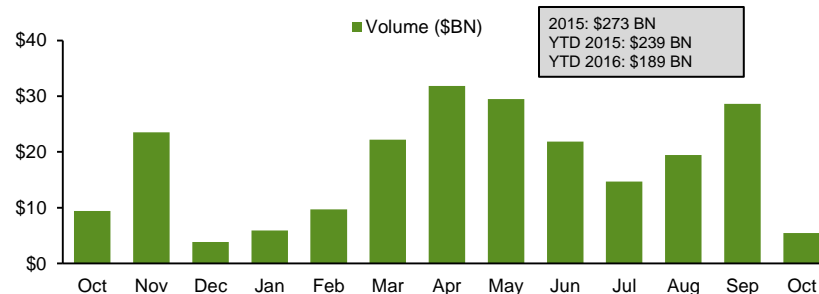


Source: Fifth Third / LCD / IFR Markets

## High Yield Bonds

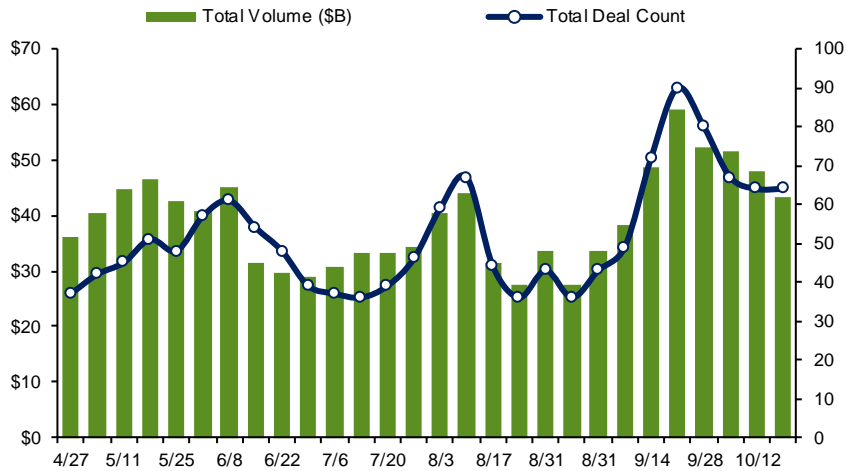
- As anticipated, earnings blackouts continued to limit activity over the past week. More broadly, the market has continued to navigate through the Presidential election cycle with limited impact given that policy topics have been overshadowed by contentious personal attacks (market largely pricing in a Clinton victory). Economic data continues to support market sentiment (even though most data release are deemed to be clearing low bars), setting up an environment that will be primed for activity once issuers exit blackout windows.
- The limited levels of primary activity have continued to contribute to the ongoing tightening of the HY Index as investors have been starved of capital deployment opportunities. Downward yield pressure has resulted in the HY Index tightening by 26bps in October, closing at a new 2016 low of 5.98% on Friday (marking the first time since May 2015 the index has traded inside of 6%).
- Asset class technicals continue to remain firm given the limited supply (and unmet demand) month-to-date. Although high yield has seen marginal outflow datapoints over the past fortnight (-\$72 million and -\$160 million last week), the net monthly figure stands at \$1.7 billion when bearing in mind the \$1.9 billion data point to get the month underway. Given the wide acknowledgement of limited supply due to blackouts, the optically negative (and small) outflows haven't been deemed concerning, with the impending expectation of post-earnings supply likely to be a better gauge of the technical picture.
- The primary market saw a pickup in activity last week, with the \$2.2 billion of supply building on the prior week's \$770 million figure. Average weekly supply in October stands at \$1.8 billion versus a \$4.5 billion year-to-date weekly supply average, providing a point of reference to illustrate the muted activity recently (and suggesting an issuer friendly supply/demand environment playing out given a widely acknowledged favorable technical backdrop).

## Monthly Issuance

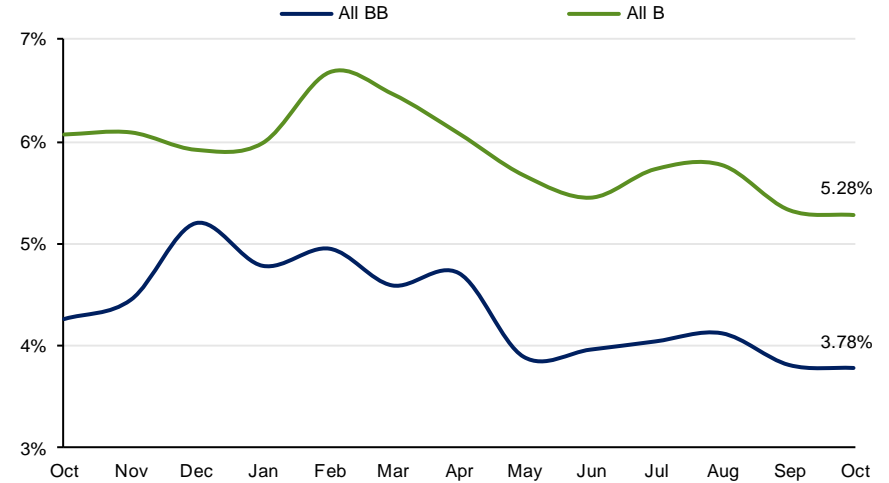


# Institutional Loan Market – Opportunistic Activity Remains Prevalent

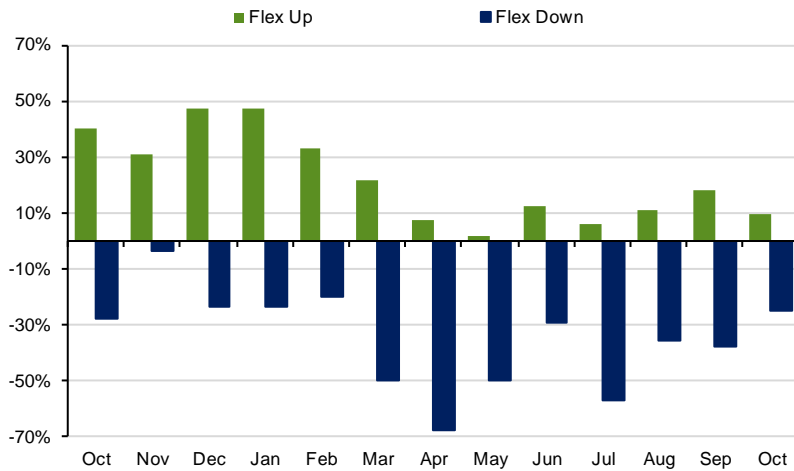
## Forward Institutional Calendar (\$ billions)



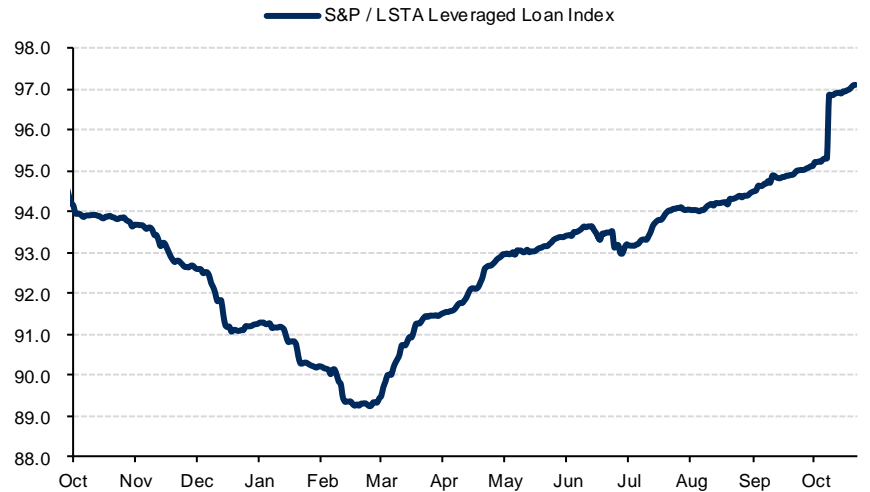
## First Lien New-Issue Yields



## First Lien Flex Activity



## Secondary Index

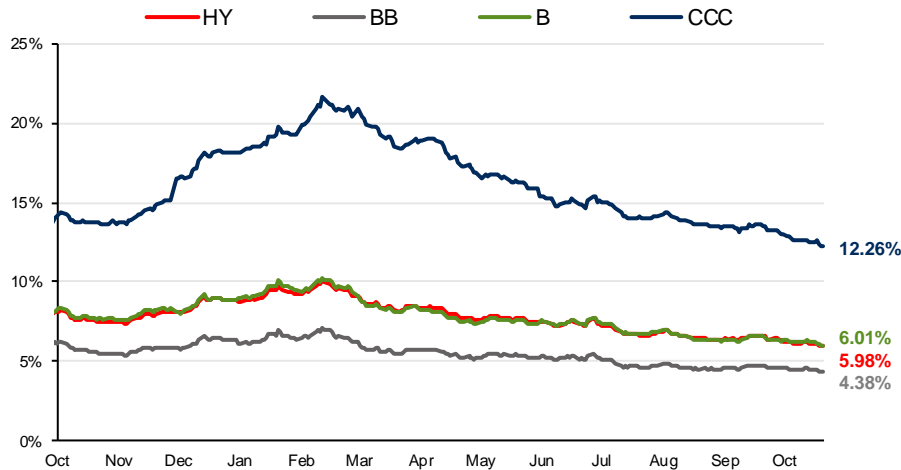


Source: S&P Capital IQ LCD / Fifth Third Securities

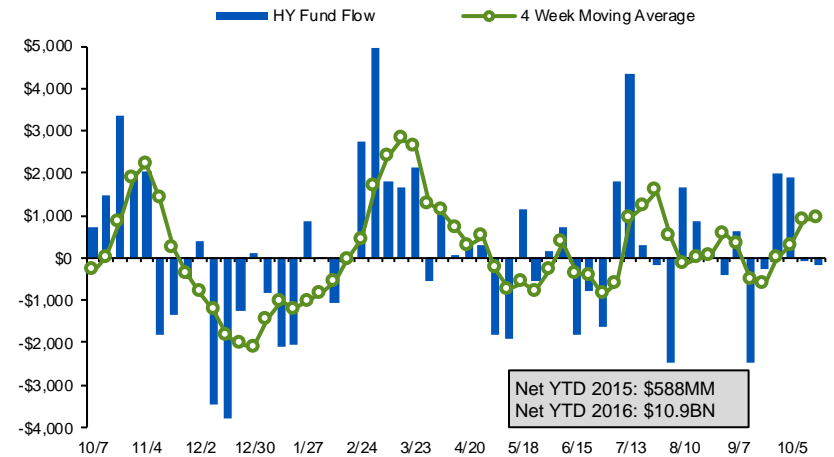


# High Yield – Earnings blackouts contribute to limited month-to-date activity, but supply expected to swell in coming weeks

## HY Index breaches 6% for first time since May 2015



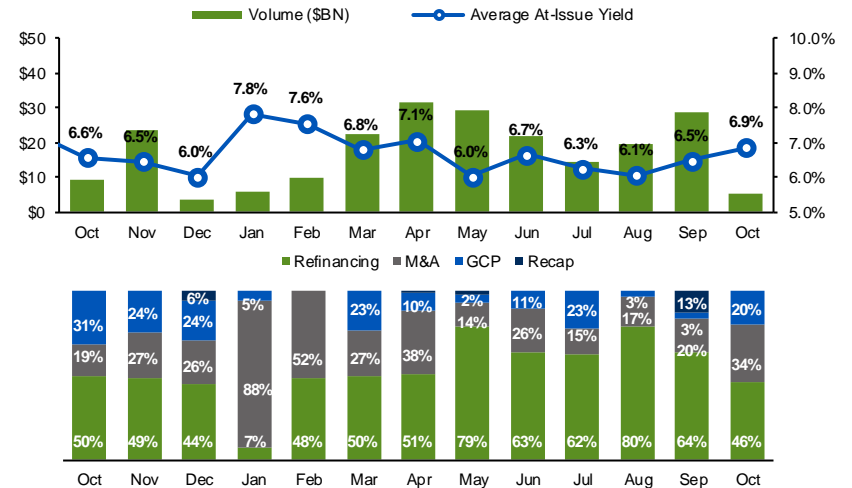
## Supply starved investors will be looking to deploy capital



## Limited supply created competition for 'desirable' credits...

Issue Date	Issuer	Rating Moody's / S&P	Issue Amount	Tenor	Yield	Use of Proceeds	Pricing Execution	Break Price
<b>A couple of standout executions lead the October calendar...</b>								
10/20/16	Diamondback Energy Inc	B2 / BB-	\$500	8	4.750%	Refinancing / Bonds	Tight	101.500
10/18/16	CNH Industrial Capital	Ba1 / BB	\$400	5	4.000%	GCP	At	99.500
10/13/16	Lions Gate Entertainment Corp	B2 / B-	\$520	8	5.875%	Acquisition	Through	100.875
<b>...With others rounding out a limited menu of primary options</b>								
10/20/16	Enviva Partners	B2 / B+	\$300	5	8.500%	Acquisition	At	--
10/19/16	Horizon Pharma	B3 / B-	\$300	8	8.750%	Acquisition	Wide	101.500
10/19/16	NGL Energy Partners	B2 / BB-	\$700	7	7.500%	Refinancing / Bank	Tight	102.000
10/6/16	Alliance One International	B1 / CCC+	\$275	5	8.750%	Refinancing / Bank	Tight	100.000
10/6/16	Concordia Healthcare	B1 / B	\$350	5	9.000%	GCP	Tight	103.000
<b>Low Yield</b>					4.000%			
<b>High Yield</b>					9.000%			
<b>Median Yield</b>					8.000%			
<b>Average Yield</b>					7.141%			

## ...with M&A deals contributing to the month-to-date total



Source: Fifth Third Securities / IFR Markets / Bloomberg

# October TLB Transactions

\$ in millions

Launch Date	Company	Status	Use of Proceeds	Industry	Amount *	Tenor	Leverage (1L / Total)	Corporate Ratings	Facility Ratings	Margin	Floor	OID
10/20/2016	Expera Specialty Solutions	In Market	Dividend/Recap	Basic Industry	\$285	7.0yr	3.8x / -	B+ / B2	BB- / B2	475-500	100	99.00
10/20/2016	Live Nation	In Market	Reprice	TMT	\$975	7.0yr	2.0x / 3.8x	BB- / B1	BB / Ba2	275-300	--	99.50
10/20/2016	Infoblox	In Market	LBO	TMT	\$500*	7.0yr	4.4x / 6.6x	B- / B2	B- / B1	450	100	99.00-99.50
10/19/2016	Harsco	In Market	Refinance	Industrial	\$550	7.0yr	2.9x / -	BB- / Ba1	BB / Ba1	550	100	98.00
10/18/2016	Evoqua Water Technologies	In Market	Refinance	Industrial	\$150 (Add-On)*	4.3yr	4.5x / 4.7x	B / B2	B / B2	375	100	99.25
10/18/2016	Entercom Radio	In Market	Refinance	TMT	\$460	7.0yr	4.2x / 4.5x	B+ / B1	BB- / B1	375	100	99.50-99.00
10/18/2016	Varsity Brands	In Market	Dividend/Recap	Consumer / Retail	\$95 (Add-On)*	5.0yr	4.2x / 5.9x	B / B2	B+ / B1	400	100	99.50
10/18/2016	Bioventus	In Market	Refinance	Healthcare	\$210	6.0yr	3.8x / -	B / B3	B / B3	625	100	98.00
10/18/2016	Generac	In Market	Refinance	Industrial	\$929*	6.6yr	3.8x / 4.0x	BB- / Ba3	TBD / TBD	275	75	99.75
10/18/2016	Winnebago	In Market	Acquisition	Industrial	\$300*	7.0yr	4.6x / -	BB- / B1	BB- / B2	425-450	100	99.00
10/17/2016	Filtration Group	In Market	Acquisition	Industrial	\$104 (Add-On)*	4.0yr	5.3x / 5.4x	B / B2	B / B2	325	100	99.00-99.50
10/17/2016	Warner Music Group	In Market	Refinance	TMT	\$979*	7.0yr	4.0x / 5.1x	B / B1	B / Ba3	275	100	99.00-99.50
10/17/2016	American Airlines 1	In Market	Refinance	Services	\$970	2.6yr	2.2x / 3.2x	BB- / Ba3	BB+ / Ba1	225	--	100.00
10/17/2016	American Airlines 2	In Market	Refinance	Services	\$1,000	6.5yr	2.2x / 3.2x	BB- / Ba3	BB+ / Ba1	250	75	100.00
10/17/2016	Global Payments, Inc.	In Market	Reprice	Financial Services	\$1,045*	6.5yr	7.3x / -	BB+ / Ba2	BBB- / Ba2	250-275	--	99.50
10/13/2016	Genoa Healthcare	In Market	Dividend/Recap	Healthcare	\$600*	7.0yr	4.8x / 6.2x	B / B2	B / B1	425	100	99.50
10/13/2016	Surgical Care Affiliates	In Market	Refinance	Healthcare	\$593 (Add-On)*	5.4yr	3.0x / 4.4x	B+ / B1	B+	275-300	100	99.00-99.50
10/13/2016	Rackspace	In Market	LBO	TMT	\$2,000*	7.0yr	2.7x / 4.1x	BB- / B1	BB+ / Ba2	425	100	99.00
10/13/2016	Berlin Packaging	In Market	Acquisition	Industrial	\$190*	5.0yr	6.2x / 7.8x	B / B3	B / B2	350	100	99.50-99.75
10/11/2016	Pro Mach Group	In Market	Refinance	Industrial	\$160	5.0yr	4.3x / 6.3x	B- / B3	B- / B2	375	100	99.50-99.00
10/7/2016	Portillo Restaurant Group	In Market	Dividend/Recap	Consumer / Retail	\$71 (Add-On)*	4.8yr	4.7x / 6.0x	B- / B3	B- / B3	450	100	99.00
10/7/2016	Forterra	In Market	Refinance	Basic Industry	\$1,000*	7.0yr	4.0x / -	B / B2	B+ / B1	400	100	99.00
10/7/2016	Party City Holdings	In Market	Reprice	Consumer / Retail	\$1,227*	6.0yr	3.8x / -	B / B1	B / B1	300	75	100.00
10/7/2016	Coty	In Market	Reprice	Consumer / Retail	\$2,097 (Add-On)*	6.0yr	3.7x / -	BB+ / Ba1	BBB- / Ba1	250-275	--	100.00
10/6/2016	Dayton Superior	In Market	Refinance	Basic Industry	\$225	6.0yr	4.1x / -	B / TBD	B / TBD	700	100	97.00
10/5/2016	Micron Technology	In Market	Reprice	TMT	\$748*	5.5yr	1.1x / 2.7x	BB / Ba2	BBB- / Baa2	375	--	100.00
10/5/2016	Morsco	In Market	Refinance	Industrial	\$300*	7.0yr	5.4x / -	B / B2	B / TBD	600	100	99.00
10/5/2016	Virtu Financial	In Market	Refinance	Financial Services	\$540	6.0yr	1.8x / -	B / Ba3	B / Ba3	375	100	99.50
10/13/2016	Horizon Pharma	Cleared / Allocated	Acquisition	Healthcare	\$375 (Add-On)*	4.6yr	2.3x / 3.8x	B / B2	BB- / Ba2	450	100	99.50
10/7/2016	SFR Group	Cleared / Allocated	Refinance	TMT	\$2,340 (Add-On)*	8.2yr	4.2x / -	B+ / B1	B+ / B1	325	75	99.75
10/6/2016	Transdigm	Cleared / Allocated	Refinance	Industrial	\$1,150 (Add-On)*	6.8yr	2.4x / 4.8x	B / B1	B / Ba2	300	75	99.50
10/5/2016	Intrawest	Cleared / Allocated	Reprice	Gaming & Leisure	\$555*	3.2yr	5.5x / 5.8x	B / B2	B+ / B2	350	100	100.00
10/5/2016	K&N	Cleared / Allocated	LBO	Industrial	\$245*	7.0yr	4.4x / 6.2x	B / B3	B+ / B2	475	100	99.00
10/5/2016	Jeld-Wen	Cleared / Allocated	Dividend/Recap	Basic Industry	\$375 (Add-On)*	5.6yr	4.5x / -	B / B1	B / B1	375	100	99.75
10/5/2016	Convatec	Cleared / Allocated	Refinance	Healthcare	\$430	7.0yr	3.8x / -	B+ / B2	BB / Ba3	250	75	99.50
10/4/2016	First Data	Cleared / Allocated	Refinance	Financial Services	\$4,545	4.4yr	5.8x / 7.2x	B+ / B1	BB / Ba3	300	--	100.00

10/04/16 - 36 Deals  
10/20/16

8 Closed  
(22% of total)

24 Refi's  
7 M&A  
5 Div/Recaps  
0 Other

Min	\$71	2.6yr	1.1x / 1.8x	Strong BB	Weak-Mid BBB	225.00	75.00	100.00
Max	\$4,545	8.2yr	7.3x / 7.8x	Weak B	Weak B	700.00	100.00	97.00
Average	\$787	6.0yr	3.9x / 4.7x	Strong B	3B	381.94	95.00	99.32
Median	\$545	6.3yr	4.1x / 4.4x	Mid-Strong B	Strong B	375.00	100.00	99.50

\* Denotes covenant-lite

Source: Fifth Third Securities / IFR Markets

# October HY Transactions

\$ in millions

Issue Date	Issuer	Sector	Amount	Coupon	Security	Tenor	Call	Rating Moody's / S&P	Price	Yield	Spread	Use of Proceeds	Pricing Execution
10/20/16	Diamondback Energy Inc	E & P	\$500	4.750%	Unsecured Notes (144A)	8	NC3	B2 / BB-	100.000	4.750%	311	Refinancing / Bonds	Tight
10/20/16	Enviva Partners	Forest Product	\$300	8.500%	Unsecured Notes (144A life)	5	NC2	B2 / B+	100.000	8.500%	725	Acquisition	At
10/19/16	Horizon Pharma	Pharmaceuticals	\$300	8.750%	Unsecured Notes (144A life)	8	NC3	B3 / B-	100.000	8.750%	715	Acquisition	Wide
10/19/16	NGL Energy Partners	Midstream/Pipelines	\$700	7.500%	Unsecured Notes (144A)	7	NC3	B2 / BB-	100.000	7.500%	598	Refinancing / Bank	Tight
10/18/16	CNH Industrial Capital	Financial Services	\$400	3.875%	Unsecured Notes	5	NC	Ba1 / BB	99.441	4.000%	271	GCP	At
10/13/16	Lions Gate Entertainment Corp	Media	\$520	5.875%	Unsecured Notes (144A life)	8	NC3	B2 / B-	100.000	5.875%	424	Acquisition	Through
10/13/16	Warner Music Group	Entertainment & Leisure	\$250	4.875%	Secured Notes	8	NC3	Ba3 / B	100.000	4.875%	323	Refinancing / Bonds	At
10/7/16	Virgin Australia Holdings	Transportation	\$350	7.875%	Unsecured Notes (144A life)	5	NC	B3 / B-	100.000	7.875%	659	GCP	At
10/6/16	Alliance One International	Tobacco	\$275	8.500%	Secured Notes (144A life)	5	NC2	B1 / CCC+	99.085	8.750%	751	Refinancing / Bank	Tight
10/6/16	Concordia Healthcare	Pharmaceuticals	\$350	9.000%	Secured Notes (144A)	5	NC3	B1 / B	100.000	9.000%	760	GCP	Tight
10/6/16	Gulfport Energy Corp	E & P	\$650	6.000%	Unsecured Notes (144A)	8	NC3	B2 / B+	100.000	6.000%	436	Refinancing / Bonds	At
10/6/16	Pinnacle Entertainment Inc	Gaming & Hotel	\$125	5.625%	Unsecured Notes (Add on) (144A)	8	5/1/19	B2 / BB-	100.500	5.518%	412	Refinancing / Bank	Tight
10/5/16	Dynegy	Utilities	\$750	8.000%	Unsecured Notes (144A life)	8	NC3	B3 / B+	100.000	8.000%	625	Acquisition	Tight
		<b>Total \$ Volume</b>	<b>\$5,470</b>			<b>Min</b>	5		<b>Min</b>	4.000%		<b>Execution</b>	
		<b>Total Deals</b>	<b>13</b>			<b>Max</b>	8		<b>Max</b>	9.000%		<b>Tight / Through</b>	7 / 54%
		<b>Median Deal Size</b>	<b>\$350</b>			<b>Median</b>	8		<b>Median</b>	7.500%		<b>At</b>	5 / 38%
		<b>Average Deal Size</b>	<b>\$421</b>			<b>Average</b>	7		<b>Average</b>	6.876%		<b>Wide / Outside</b>	1 / 8%

Source: Fifth Third Securities / IFR Markets

# Commodities Environment

## Crude Oil

- Crude oil continues to hover around \$50/barrel as investors weigh the likelihood of a deal to reduce supply after Russia's energy minister said the country's output could rise to a record next year. U.S. rig count rose for the eighth consecutive week, up 11 to 443, according to Baker Hughes data reported last Friday. Producers have added 113 rigs since a steady expansion commenced at the end of June. Proposed output cuts by OPEC could keep pushing rig count levels higher as operator sentiment shifts to a more positive outlook. The drilling expansion so far has been limited mainly to the most economic oil regions, such as the Permian basin in West Texas which houses nearly half of all U.S. oil rigs.
- Iraq is also threatening to disrupt any deal to cut OPEC production. OPEC's second-largest producer threw an obstacle in the group's path toward a final deal to stabilize oil markets when Iraq balked at joining efforts to trim output to prop up crude prices. Iraq is claiming it should be exempted from cutting production because it's embroiled in a war with Islamic militants. At a news conference on October 23rd, Iraqi oil minister suggested they are "with OPEC policy and OPEC unity" but this should not be at their expense. A meeting in Algeria last month of the group's 14 members stretched to seven hours as Iraq argued over the level of production that should be used as a baseline for setting quotas. OPEC is trying to woo other producers to join in the group's first output cuts in eight years, a policy shift that members agreed to last month in Algiers.

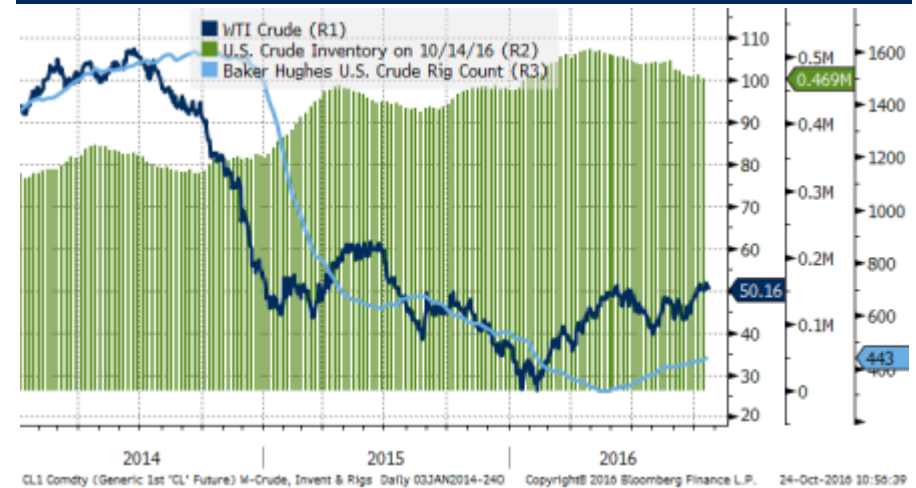
## Natural Gas

- Natural gas futures saw the biggest drop since February last week as forecasts for unseasonably warm weather spurred concern that a mild winter will erode demand for heating fuel. Prices hit a 22 month high earlier this month on the back of record power demand and a slowdown in production. Natural gas output is expected to average 74bcf/day this winter according to EIA data while consumption is expected to average just under 90bcf/day.

## Metals / Other

- Late last week, China's top stainless steel producer said it plans to cut output as nickel prices fell to the lowest in a month. However, nickel is still up 13% this year, having benefitted from a broad rally in metals and concerns over supply disruptions in the Philippines, the world's top supplier. On the aluminum front, Chinese smelters are driving record production even as those in the U.S. and Europe are curbing supply. The International Aluminum Institute estimates the Asian country helped boost global average daily output to 164,600 metric tons in September. Increased supplies have weighed on prices, with the metal seeing the biggest weekly drop in three months. Gold dropped as the US dollar strengthened, trimming bullion's first weekly gain in four. The precious metal had a failed rally last week after an increase in holdings in exchange trading funds.

## WTI Crude Oil (\$/Bbl), U.S. Crude Inventory (Bbls) & Rig Count



## NYMEX Natural Gas (\$, Prompt Month) with Moving Averages



# Foreign Exchange

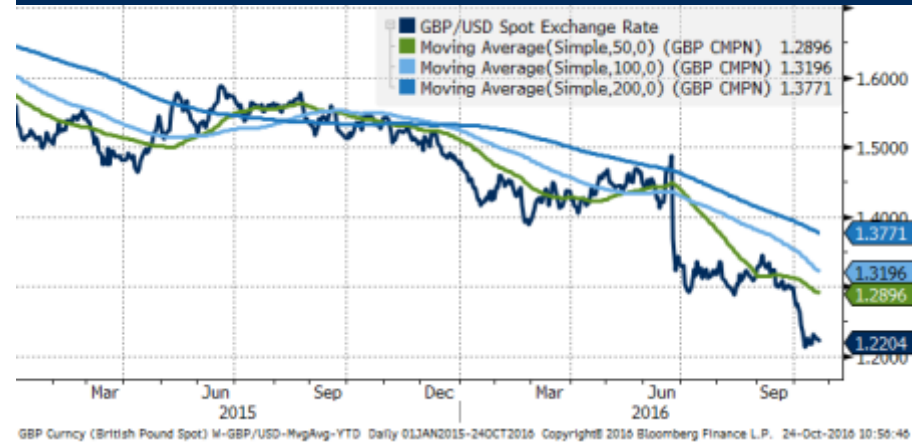
- USD** - The USD index is near an eight month high as expectations for a December rate hike increase. Fed speakers have been hawkish giving the USD a further boost. Fed's Fischer warned on dangers of low rates. He suggested that low rates can lead to longer and deeper recessions, making the economy more vulnerable. New York Fed's Dudley said he expects an interest rate increase by the end of 2016 if the economy stayed on the current trajectory. Janet Yellen's speech from Friday, October 14th tried to subdue the USD when she spoke of the potential for letting the USA economy run hot. The USD has been especially firm against the European currencies and emerging market currencies in the last week.
- EUR** - The EUR is trading at a seven month low of 1.0860 after the ECB meeting and press conference last week. It was the third straight week the EUR lost ground to the USD and is down 3.0% for this month. That's a big change from the third quarter, when the single currency traded in its narrowest range ever. ECB President Draghi said in his post meeting press conference that quantitative easing is unlikely to come to an "abrupt" end, making investors more confident that unprecedented monetary stimulus will continue beyond its planned March 2017 expiry date. Draghi also said that neither tapering nor an extension of the ECB's bond buying plan was discussed at its two day policy meeting. Draghi's noncommittal stance now leaves traders waiting until at least December for news about policy changes.
- CNY** - The CNY weakened to a new six year low against the USD. The People's Bank of China weakened the latest CNY fix to 6.7558 from 6.7311 the previous day, the most since August. The CNY has already dropped past the level most forecasters predicted for year end (6.7500), with declines accelerating as policy makers signaled further tolerance for more weakness amid a surge in the USD and a tumble in Chinese exports. On the bright side, China's economic growth remained stable in the third quarter, all but ensuring the government's full year target is met (6.5%-7.0%). GDP rose 6.7% in Q3, matching estimates.
- CAD** - The CAD was the biggest loser of the G10 currencies last week, down nearly 2.0% against the USD. The recent central bank meeting saw the BoC downgrade their growth and inflation forecasts and Governor Poloz noted in the post decision press conference that the Bank actively discussed adding stimulus this month. The statement said the central bank decided to hold off given the uncertainties around several key issues, including the impacts of fiscal stimulus, new housing measures and the USA Presidential Election. Weaker retail sales and lower CPI figures added to the CAD weakness, even with oil prices near their highs of the year.
- GBP** - GBP got a much needed boost after British inflation recorded the sharpest jump in more than two years, rising 1.0% in September. The data suggests the sharp depreciation of the GBP following the June EU referendum is already pushing up the price of imports. The recent set of stronger data from the UK will further dampen expectations that the Bank of England will cut interest rates anytime soon.

- Emerging Markets** - Underlying market fundamentals remain healthy for EM, with the recent surge in oil prices helping oil related EM assets and China growth concerns receding. However, the USA elections and the upcoming FOMC meetings are looming events that could affect EM sentiment in the weeks ahead. The consolidation of the Clinton lead over Trump in the USA presidential election polls has been perceived positively for most EM assets. Still, the biggest question for EM is whether the Fed will indeed hike rates in the months ahead.

## U.S. Dollar Index with Moving Averages



## GBP/USD Spot Exchange Rate with Moving Averages



# Notes and Definitions

- Average Hourly Earnings – An indicator of labor cost inflation and of the tightness of labor market
- Average Weekly Hours – Measures an average of the number of hours worked per week by production workers in U.S.
- BCC – Blank Check Company is a development stage company with no specific business plan or purpose or has indicated its business plan to engage in a merger or acquisition with an unidentified company or companies
- BRICS – The acronym for an association of five major emerging national economies: Brazil, Russia, India, China and South Africa.
- Collateralized loan obligations (CLOs) – A form of securitization where payments from multiple middle sized and large business loans are pooled together and passed on to different classes of owners in various tranches
- Consumer Price Indexes (CPI) – A program that produces monthly data on changes in the prices paid by urban consumers for a representative basket of goods and services.
- Dow Jones Index – A price-weighted average of 30 significant stocks traded on the New York Stock Exchange and Nasdaq
- Dry Powder – Refers to cash reserves kept on hand to cover future obligations or to purchase assets
- Durable or Core Capital Goods Orders – An economic indicator released monthly by the Bureau of Census that reflects new orders placed with domestic manufacturers for delivery of factory hard goods (durable goods) in the near term or future
- Exchange-Traded Fund (ETF) - A security that tracks an index, a commodity or a basket of assets like an index fund, but trades like a stock on an exchange.
- Federal Funds Rate (Fed Funds) – The interest rate at which depository institutions actively trade balances held at the Federal Reserve
- FOMC – Federal Open Market Committee reviews economic and financial conditions, determines appropriate stance of monetary policy, and assesses the risk to it's long-run goals of price stability and sustainable economic growth.
- GDP – Gross domestic product is the market value of the goods and services produced by labor and property located in the United States.
- HY Index – A broad S&P index family designed to measure the performance of non investment-grade (high yield) and U.S. dollar-denominated bonds issued by U.S.-domiciled corporations.
- IG Index – A broad S&P index family designed to measure the performance of investment-grade and U.S. dollar-denominated bonds issued by U.S.-domiciled corporations.
- ISM Manufacturing – ISM Manufacturing Index compiles a composite diffusion index of national manufacturing conditions by the Institute of Supply Management. Readings above 50 indicate an expanding factory sector.
- LIBOR - USD London Interbank Offered Rate is the average interbank interest rate at which a large number of banks on the London money market are prepared to lend one another unsecured funds denominated in US Dollars.
- LME Index – London Metals Exchange Metals Index is a weighted index of six, designated, primary metals
- MSCI Emerging Market equity index – An index created by Morgan Stanley Capital International (MSCI) that is designed to measure equity market performance in global emerging markets
- Nasdaq Composite Index – A market-capitalization weighted index of the more than 3,000 common equities listed on the Nasdaq stock exchange
- Non Farm Payroll – Nonfarm payroll employment is a compiled name for goods, construction and manufacturing companies in the US. It does not include farm workers, private household employees, non-profit organization employees, or government employees. It is an economic indicator released monthly by the United States Department of Labor as part of a comprehensive report on the state of the labor market.
- Non manufacturing (Service) – ISM Non Manufacturing Index is an index based on surveys of more than 400 non-manufacturing firms' purchasing and supply executives, within 60 sectors across the nation, by the Institute of Supply Management.
- Participation Rate – Refers to the number of people who are either employed or are actively looking for work. The number of people who are no longer actively searching for work would not be included in the participation rate.
- PCE Core – Refers to the core Personal Consumption Expenditures Price Index (PCE PI), which measures the average price increase for American consumers on an annualized basis
- Personal Income & Spending – A set of two data points produced by the Bureau of Economic Analysis that track personal income and monthly spending.
- Retail Sales Advance & Control Group – A monthly measure of sales of goods to consumers at retail outlets; the control group excludes the volatile autos, gas and building supplies components
- Russell 2000 Index – A small-cap stock market index of the bottom 2,000 stocks in the Russell 3000 Index
- S&P 500 Index – A broad index that includes 500 American companies
- Securities Markets Programme (SMP) – Interventions by the Eurosystem in public and private debt securities markets in the euro area to ensure depth and liquidity in those market segments that are dysfunctional.
- SPAC – Special Purpose Acquisition Company is a type of blank check company created specifically to pool funds in order to finance a merger or acquisition opportunity within a set time frame.
- The Euro Overnight Index Average is an effective overnight interest rate computed as a weighted average of all overnight unsecured lending transactions in the interbank market in Euros.
- The Personal Consumption Expenditure (PCE) measure is the component statistic for consumption in GDP collected by the BEA. It consists of the actual and imputed expenditures of households and includes data pertaining to durable and non-durable goods and services. It is essentially a measure of goods and services targeted towards individuals and consumed by individuals.
- The University of Michigan Consumer Confidence (Sentiment) Index is a consumer confidence index published monthly by the University of Michigan and Thomson Reuters. The index is normalized to have a value of 100 in December 1964.
- U3 Unemployment Rate – The U3 unemployment rate is the percentage of all individuals above the age of 16 actively looking for work, but unable to find any within the past 4 weeks. Does not include individuals in the military, prisons, mental hospitals, and nursing homes. The Bureau of Labor Statistics publishes the figure on the first Friday of each month, covering the month just concluded.
- Underemployment Rate – A measurement compiled by the U.S. Bureau of Labor Statistics that provides the broadest measure of labor underutilization defined as the total unemployed populace, plus all marginally attached workers, plus all persons employed part-time for economic reasons, as a percentage of the civilian labor force plus all marginally attached workers
- Unemployment Rate (Household Survey) – Unemployment is defined by the Bureau of Labor Statistics (BLS) as people who do not have a job, have actively looked for work in the past four weeks, and are currently available for work. The BLS measures unemployment through monthly household surveys, also called the Current Population Survey (CPS).

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