

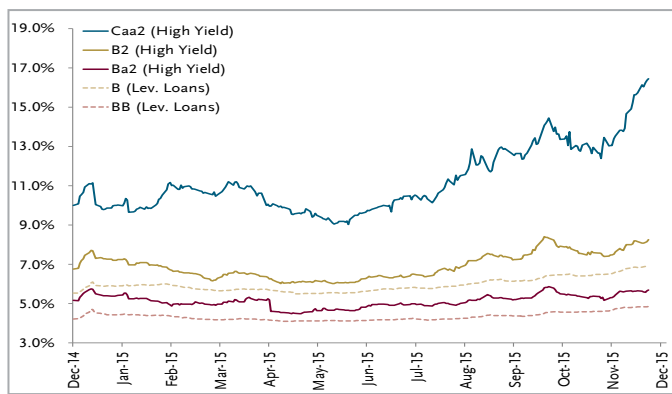
# Piper Jaffray Debt Capital Markets Update

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## LOAN & BOND YIELDS AND VOLUME

### Leveraged Loan & HY Yields by Rating



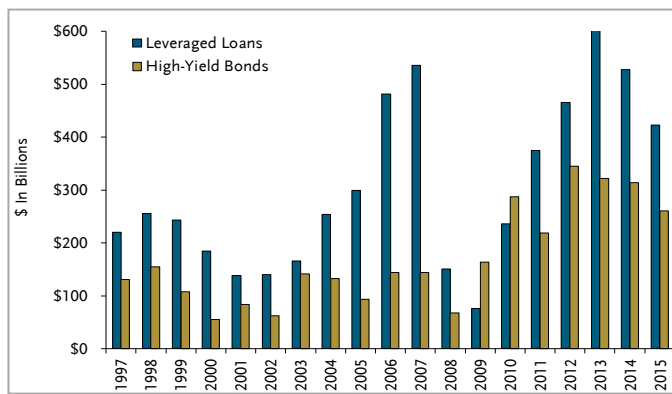
Source: AdvantageData, S&P LCD

### Leveraged Loan & HY Yield Spread



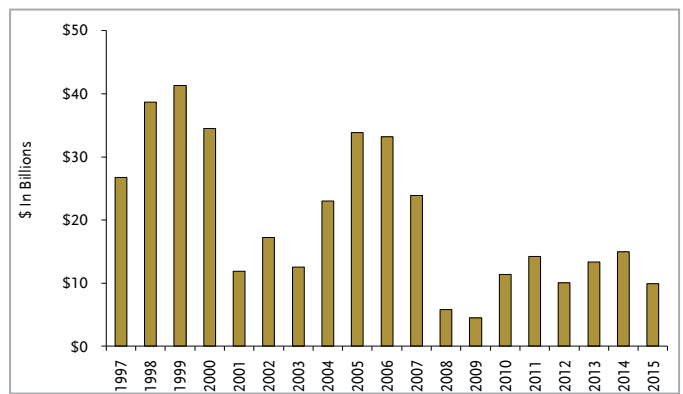
Source: AdvantageData, S&P LCD

### Leveraged Loan & HY Volume



Source: S&P LCD

### Middle Market Loan Volume



Source: S&P LCD

## MARKET COMMENTARY

The high-yield market priced six bonds last week, bringing weekly and year-to-date issuance to more than \$3.2 billion and \$236.4 billion, respectively. The leveraged loan market launched 18 transactions last week, bringing weekly and year-to-date launches to more than \$12.4 billion and \$321.4 billion, respectively.

For B2/B rated issues, yields for the secondary leveraged loan market increased 7 bps, ending the week at 6.91%, while yields for the secondary high-yield bond market increased 11 bps, ending the week at 8.26%. The yield spread between B2/B rated high-yield bonds and leveraged loans finished the week at 135 bps.

This week, loan and high-yield funds saw \$387.0 million in outflows and \$398.0 million in inflows, respectively. Year-to-date, loan funds have seen \$11.7 billion in outflows, while high-yield funds have seen \$1.4 billion in inflows.

Note: Leveraged loans and high yield bonds include new money issues rated Ba1/BB+ or lower; leveraged loan volume only represents launched transactions  
Source: AdvantageData, Piper Jaffray, S&P LCD

New High Yield Bond Issues<sup>(1)(2)</sup>

Company (New Issues)	Ratings		Industry	Amount (\$MM)	Maturity	Coupon	Yield	Price	Lead Bookrunner	Security	Sponsor	Purpose
	Moody's	S&P										
Ball Corp	Ba1	BB+	Metals & Mining	\$1,000.0	12/15/20	4.4%	100.0	100.0	GS	Unsecured	Not Sponsored	M&A
Group 1 Automotive	Ba2	BB	Retail	\$300.0	12/15/23	5.3%	5.3%	100.0	Wells Fargo	Unsecured	Not Sponsored	Refinancing
Mednax	Ba2	BB-	Healthcare	\$750.0	12/1/23	5.3%	5.3%	100.0	JPM	Unsecured	Not Sponsored	Refinancing
Aramark	B2	BB-	Services & Leasing	\$400.0	1/15/24	5.1%	5.1%	100.0	JPM	Unsecured	Thomas H. Lee	Corp Purpose

Company (Tapped Issues)	Ratings		Industry	Amount (\$MM)	Maturity	Coupon	Yield	Price	Lead Bookrunner	Security	Sponsor	Purpose
	Moody's	S&P										
Churchill Downs	B1	BB	Entertainment	\$300.0	12/15/21	5.4%	5.1%	101.0	JPM	Unsecured	Not Sponsored	M&A
HCA Holdings	B1	B+	Healthcare	\$500.0	2/15/26	5.9%	5.8%	100.3	Barclays	Unsecured	Not Sponsored	Corp Purpose

New Leveraged Loan Launches<sup>(1)(2)</sup>

Company (<\$500M)	Ratings		Industry	Amount (\$MM)	Floor	Spread	OID	Leverage	Arranger	Sponsor	Purpose
	Moody's	S&P									
Cypress Semiconductor (RC)	Ba3	BB	Computers	\$100.0	TBD	TBD	TBD	NA	CS	Not Sponsored	Recap
Cypress Semiconductor (TLA)	NR	NR	Computers	\$100.0	0.00%	L + 325	99.0	NA	CS	Not Sponsored	Recap
Edelman Financial (RC)	B1	B+	Services & Leasing	\$30.0	0.00%	L + 500	TBD	NA	MS	Hellman & Friedman	LBO
Edelman Financial (TLB)	B1	B+	Services & Leasing	\$230.0	1.00%	L + 500	99.0	NA	MS	Hellman & Friedman	LBO
Varsity Brands (TLB)	B1	B+	Textile & Apparel	\$75.0	TBD	TBD	99.0	NA	GS	Charlesbank	Acquisition
Prolamina (TLB)	B1	B	Forest Product	\$245.0	1.00%	L + 400	TBD	NA	RBC	Wellspring Capital	Acquisition
United Site Services (TLB)	B1	B	Services & Leasing	\$50.0	TBD	TBD	TBD	4.0x	Antares	Calera Capital	Acquisition
TierPoint (RC)	B2	B+	Electronics	\$30.0	TBD	L + 425	TBD	NA	RBC	RedBird Capital	Acquisition
TierPoint (TLB)	B2	B+	Electronics	\$220.0	1.00%	L + 425	99.0	NA	RBC	RedBird Capital	Acquisition
Plz Aerospace (TLB)	B2	B	Chemicals	\$155.0	1.00%	L + 425	99.0	NA	Antares	Pritzker	Acquisition
ProQuest (RC)	B2	B	Computers	\$15.0	TBD	TBD	TBD	NA	GS	ABRY Partners	Acquisition
ProQuest (TLB)	B2	B	Computers	\$275.0	1.00%	L + 475	99.0	NA	GS	ABRY Partners	Acquisition
TierPoint (2nd)	Caa2	CCC+	Electronics	\$90.0	1.00%	L + 875	98.0	NA	RBC	RedBird Capital	Acquisition
Automobile Protection (RC)	NR	NR	Insurance	\$20.0	1.00%	TBD	TBD	4.7x	SunTrust	Ontario Teachers	LBO
Automobile Protection (TLB)	NR	NR	Insurance	\$190.0	1.00%	TBD	TBD	4.7x	SunTrust	Ontario Teachers	LBO
Ldiscovery (RC)	NR	NR	Computers	\$15.0	TBD	TBD	TBD	NA	Antares	Carlyle Group	LBO
Ldiscovery (TLB)	NR	NR	Computers	\$100.0	1.00%	L + 475	99.0	3.0x	Antares	Carlyle Group	LBO
MB Aerospace (RC)	NR	NR	Aerospace & Defense	\$35.0	TBD	TBD	TBD	NA	SG	Blackstone Group	LBO
MB Aerospace (TLB)	NR	NR	Aerospace & Defense	\$150.0	1.00%	L + 550	99.0	NA	SG	Blackstone Group	LBO

Company (>\$500M)	Ratings		Industry	Amount (\$MM)	Floor	Spread	OID	Leverage	Arranger	Sponsor	Purpose
	Moody's	S&P									
Terex (RC)	Ba2	BB+	Machinery	\$700.0	TBD	TBD	TBD	NA	CS	Not Sponsored	Merger
Terex (TLB)	Ba2	BB+	Machinery	\$900.0	0.75%	L + 350	99.0	NA	CS	Not Sponsored	Merger
AMC Entertainment (TLB)	Ba2	BB	Entertainment	\$881.0	0.75%	L + 325	99.5	NA	Citigroup	Not Sponsored	Refinancing
Albertson's (TLB)	Ba3	BB	Retail Food & Drug	\$1,145.0	1.00%	L + 450	99.5	NA	Citigroup	Cerberus	Refinancing
ClubCorp (TLB)	Ba3	BB-	Entertainment	\$675.0	1.00%	L + 325	99.5	NA	Citigroup	KSL Capital	Refinancing
Kraton Performance Polymers (RC)	NR	NR	Chemicals	\$250.0	TBD	TBD	TBD	4.3x	CS	Not Sponsored	Acquisition
Kraton Performance Polymers (TLB)	Ba3	B+	Chemicals	\$1,350.0	1.00%	L + 475	98.0	4.3x	CS	Not Sponsored	Acquisition
Sunoco (TLA)	NR	BB	Oil & Gas	\$2,035.0	0.00%	L + 250	TBD	5.4x	CS	Not Sponsored	Acquisition
Microsemi (RC)	NR	NR	Computers	\$350.0	TBD	L + 225	99.6	NA	MS	Not Sponsored	Acquisition
Microsemi (TLA)	NR	NR	Computers	\$650.0	TBD	L + 225	99.6	NA	MS	Not Sponsored	Acquisition
Microsemi (TLB)	NR	NR	Computers	\$1,425.0	0.75%	L + 375	98.5	NA	MS	Not Sponsored	Acquisition

<sup>(1)</sup> Split-rated issues with an investment grade rating from either rating agency are not included/shown<sup>(2)</sup> Bold transactions denote Piper Jaffray arrangements and/or advisory assignments

Source: Piper Jaffray, S&amp;P LCD

## New Investment Grade Bond Issues

Company	Ratings		Industry	Amount (\$MM)	Maturity	Spread	Coupon	Yield	Issue Type
	Moody's	S&P							
Commonwealth Bank of Australia	Aa2	AA-	Services & Leasing	\$1,250.0	12/9/25	+ 235	4.5%	4.5%	Sub Notes
Royal Bank of Canada	Aa3	AA-	Services & Leasing	\$1,250.0	12/10/18	+ 73	2.0%	2.0%	Senior Notes
Royal Bank of Canada	Aa3	AA-	Services & Leasing	\$250.0	12/10/18	+ 70	FRN	FRN	Senior Notes
Jackson National Life Global Funding	A1	AA	Insurance	\$350.0	12/9/20	+ 98	2.6%	2.6%	Funding Agreement
Principal Life Insurance	A1	A+	Insurance	\$350.0	12/1/17	+ 50	FRN	FRN	Funding Agreement
Bank of America	A1	A	Services & Leasing	\$1,250.0	12/7/18	+ 80	2.1%	2.1%	Bank Guaranteed
Bank of America	A1	A	Services & Leasing	\$350.0	12/7/18	+ 76	FRN	FRN	Bank Guaranteed
Wisconsin Public Service	A1	A-	Utilities	\$250.0	12/4/18	+ 50	1.7%	1.7%	Senior Notes
Wells Fargo	A2	A+	Services & Leasing	\$2,100.0	12/7/20	+ 93	2.6%	2.6%	Senior Notes
Wells Fargo	A2	A+	Services & Leasing	\$400.0	12/7/20	+ 101	FRN	FRN	Senior Notes
ABN Amro	A2	A	Services & Leasing	\$750.0	6/4/20	+ 90	2.5%	2.5%	Sub Notes
Analog Devices	A3	A-	Computers	\$850.0	12/15/25	+ 160	3.9%	3.9%	Senior Notes
Analog Devices	A3	A-	Computers	\$400.0	12/15/45	+ 225	5.3%	5.3%	Senior Notes
Georgia Power	A3	A-	Utilities	\$500.0	12/1/18	+ 80	2.0%	2.0%	Senior Notes
Citigroup	Baa1	A-	Services & Leasing	\$1,650.0	12/7/18	+ 88	2.1%	2.1%	Senior Notes
Citigroup	Baa1	A-	Services & Leasing	\$350.0	12/7/18	+ 86	FRN	FRN	Sr. Discount Notes
Citizens	Baa1	A-	Services & Leasing	\$750.0	12/3/18	+ 113	2.3%	2.3%	Bank Guaranteed
McDonald's	Baa1	BBB+	Restaurants	\$1,750.0	1/30/26	+ 155	3.7%	3.7%	Senior Notes
McDonald's	Baa1	BBB+	Restaurants	\$1,750.0	12/9/45	+ 195	4.9%	4.9%	Senior Notes
McDonald's	Baa1	BBB+	Restaurants	\$1,000.0	12/9/20	+ 115	2.8%	2.8%	Senior Notes
McDonald's	Baa1	BBB+	Restaurants	\$750.0	12/7/18	+ 90	2.1%	2.1%	Senior Notes
McDonald's	Baa1	BBB+	Restaurants	\$750.0	12/9/35	+ 180	4.7%	4.7%	Senior Notes
Rogers Communications	Baa1	BBB+	Telecom	\$700.0	12/15/25	+ 157	3.6%	3.7%	Senior Notes
Rogers Communications	Baa1	BBB+	Telecom	\$300.0	3/15/44	+ 197	5.0%	4.9%	Senior Notes
BAE Systems	Baa2	BBB+	Aerospace & Defense	\$750.0	12/15/25	+ 167	3.9%	4.0%	Senior Notes
BAE Systems	Baa2	BBB+	Aerospace & Defense	\$500.0	12/15/20	+ 117	2.9%	2.9%	Senior Notes
BAE Systems	Baa2	BBB+	Aerospace & Defense	\$250.0	10/7/44	+ 195	4.8%	5.0%	Senior Notes
Solvay Finance	Baa2	BBB+	Chemicals	\$800.0	12/3/20	+ 175	3.4%	3.4%	Sub Notes
Solvay Finance	Baa2	BBB+	Chemicals	\$800.0	12/3/25	+ 225	4.5%	4.5%	Sub Notes
Roper Technologies	Baa2	BBB	Manufacturing	\$600.0	12/15/20	+ 135	3.0%	3.0%	Senior Notes
Roper Technologies	Baa2	BBB	Manufacturing	\$300.0	12/15/25	+ 165	3.9%	3.9%	Senior Notes
Thermo Fisher Scientific	Baa3	BBB	Healthcare	\$450.0	12/14/18	+ 92	2.2%	2.2%	Senior Notes
Thermo Fisher Scientific	Baa3	BBB	Healthcare	\$350.0	12/15/25	+ 145	3.7%	3.7%	Senior Notes
Pioneer Natural Resources	Baa3	BBB-	Oil & Gas	\$500.0	1/15/21	+ 185	3.5%	3.5%	Senior Notes
Pioneer Natural Resources	Baa3	BBB-	Oil & Gas	\$500.0	1/15/26	+ 225	4.5%	4.5%	Senior Notes
Whole Foods Market	Baa3	BBB-	Retail Food & Drug	\$1,000.0	12/3/25	+ 300	5.2%	5.2%	Sub Notes
Expedia	Ba1	BBB-	Leisure	\$750.0	1/15/26	+ 290	5.0%	5.1%	Sub Notes
RBS Citizens	NR	BBB	Services & Leasing	\$750.0	12/2/25	+ 210	4.3%	4.3%	Senior Notes
Synchrony Financial	NR	BBB-	Services & Leasing	\$1,000.0	1/15/19	+ 142	2.6%	2.6%	Senior Notes

<sup>(1)</sup> Split-rated issues with an investment grade rating from either rating agency are not included/shown<sup>(2)</sup> Bold transactions denote Piper Jaffray arrangements and/or advisory assignments

Source: Piper Jaffray, S&amp;P LCD

## Total Debt Volume

Bond Issues	Previous Week		2015 YTD		2014 YTD		YOY Change	
	\$MM	#	\$MM	#	\$MM	#	\$MM	#
Investment Grade	\$29,350	39	\$1,128,135	1,375	\$989,329	1,388	+14.0%	(0.9%)
High-Yield <sup>(1)</sup>	\$3,250	6	\$236,475	374	\$303,372	565	(22.1%)	(33.8%)
<b>Total Bonds</b>	<b>\$32,600</b>	<b>45</b>	<b>\$1,364,610</b>	<b>1,749</b>	<b>\$1,292,701</b>	<b>1,953</b>	<b>+5.6%</b>	<b>(10.4%)</b>

Leveraged Loan Launches	Previous Week		2015 YTD		2014 YTD		YOY Change	
	\$MM	#	\$MM	#	\$MM	#	\$MM	#
<b>Total Leveraged Loans <sup>(1)(2)</sup></b>	<b>\$12,486</b>	<b>18</b>	<b>\$321,448</b>	<b>536</b>	<b>\$480,376</b>	<b>844</b>	<b>(33.1%)</b>	<b>(36.5%)</b>

## Benchmark Yields

Benchmark	Current	Previous Week	△ (bps)	Previous Year	△ (bps)
2 yr UST	0.96%	0.92%	4.0	0.55%	41.0
5 yr UST	1.74%	1.64%	10.0	1.59%	15.0
10 yr UST	2.33%	2.22%	11.0	2.25%	8.0
30 yr UST	3.07%	3.00%	7.0	2.94%	13.0
3M LIBOR	0.46%	0.41%	4.8	0.24%	22.7

<sup>(1)</sup>Split-rated issues with an investment grade rating from either rating agency are not included/shown

<sup>(2)</sup>Includes only launched transactions

Source: Piper Jaffray, S&P LCD

## DEBT CAPITAL MARKETS CONTACTS

Len Sheer  
Global Head of Debt Capital Markets  
+1 212 284-9328  
len.l.sheer@pjc.com

James Chiarelli  
Co-Head of Debt Capital Markets  
+1 312 267-5122  
james.d.chiarelli@pjc.com

Amrit Agrawal  
Head of Debt Private Placements  
+1 212 284-5015  
amrit.a.agrawal@pjc.com

Bob Lauria  
Principal  
+1 212 284-9347  
robert.j.lauria@pjc.com

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