Technology & Telecom Weekly

EA,TTMI, Fluidstack, APLD, CCOI, FIBCOP, SFRFP and BSPEED

There was a lot going on during the holiday-shortened session last week. In tech, TTMI completed the financing for its previously announced M&A, and Bloomberg reported that the Saudi sovereign fund was mulling the combination of its Electronic Arts and Savvy Games units. In the HPC space, news reports have said that both Fluidstack and APLD may be raising additional capital. Over in telecom, Cogent bonds rallied after the company attended several conferences, FiberCop reported solid results, union members called for a work stoppage at Altice France, and news reports said that Brightspeed may be looking to raise new money.

North America Corporate Credit - Technology and Telecommunication Services (HY)

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Technology:

- Electronic Arts (EA) – Saudi PIF weighing plans to combine EA with Savvy
- TTM Technologies (TTMI) – Completes financing for acquisition of Epiq

High-Performance Compute:

- Fluidstack – Pentagon in talks to lend $5bn to Fluidstack
- Applied Digital (APLD) – Bloomberg reports the company is looking to issue new debt

Telecom:

- Cogent (CCOI) – Bonds rally after equity conferences.
- FiberCop (FIBCOP) – Solid 1H results; FTTH progressing on time and below budgeted cost
- Altice France (SFRFP) – Union calling for a work-stoppage
- Brightspeed (BSPEED) – In talks with creditors to raise new capital.

See page 28 for analyst certification and important disclosures.

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Technology

The high yield Technology index widened by 18bp to a YTW of 8.69% from 8.51% in the previous week while the overall high yield index widened by 23bp to 7.68% compared to 7.45% in the previous week. The Technology STW tightened 3bp to 405 while the overall high yield index widened 1bp to 302.

Technology:

- **Electronic Arts (EA) – Saudi PIF weighing plans to combine EA with Savvy.** Bloomberg reported that Saudi Arabia's wealth fund is considering combining Electronic Arts with Savvy Games to create one of the world's biggest gaming firms, according to people familiar with the matter. The Saudi Public Investment Fund (PIF) owns Savvy as well as EA. The move would be to ensure better coordination between the two assets, the people said. No final decisions have been made, and a deal is unlikely to happen until Savvy completes its $6 billion acquisition of Chinese mobile gaming business Moonton, the people said. The combination would bring well-known titles such as Madden NFL and Pokemon Go under one roof. The PIF acquired EA in a go-private buyout that closed in August, while Savvy has used PIF funds to acquire mobile gaming companies such as Scopely ($4.9bn) and Niantic ($3.5bn). The article did not provide the details of a possible combination but mentioned that such a deal would likely face antitrust scrutiny.
- **TTM Technologies (TTMI) – Completes financing for acquisition of Epiq.** Last Thursday, TTM announced that it had priced $500mn in new 6.75% unsecured notes due in 2034. TTM intends to use the net proceeds of the offering of the notes, together with expected borrowings from a $300 million incremental senior secured term loan A and an $800 million incremental senior secured term loan B to fund the purchase price for the previously announced proposed acquisition of Epiq Solutions. In addition, the funds may be used for general corporate purposes, which may include the reduction of any amounts TTM may borrow under the Revolving Credit Facility to fund the purchase price for the previously announced proposed acquisition of Swiss Technology Group AG ("STG") and to pay related fees and expenses.

High-Performance Compute:

- **Fluidstack – Pentagon in talks to lend $5bn to Fluidstack.** The WSJ reported that the Pentagon is in talks to lend roughly $5 billion to neocloud computing firm Fluidstack, according to people familiar with the matter. Funding would be provided by the Pentagon's Office of Strategic Capital to shore up the U.S. supply chain and manufacturing capacity for certain components related to data centers. The loan would then be used by Fluidstack to support its work in areas deemed critical to U.S. national security. The deal has not been finalized, and the terms, including the interest rate that Fluidstack would pay, could change, according to a Pentagon spokesman, who said the Department does not comment on transactions that are either pending or in the middle of negotiations.
- **Applied Digital (APLD) – Bloomberg reports the company is looking to issue new debt.** A competing bank has been gauging investor interest in a roughly $3.5 billion bond offering for a data-center project linked to Meta, according to an article by Bloomberg. The debt could be issued by Applied Digital as soon as this month,

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according to people familiar with the matter, though no final decision has been made on the size or the timing of the offering. Applied Digital has issued roughly $6 billion of high yield bonds since its first transaction in November to fund data centers leased to firms including Oracle and CoreWeave.

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Telecommunications

The high yield Telecommunication index widened by 21bp to a YTW of 9.62% from 9.41% in the previous week while the overall high yield index widened by 23bp to 7.68% compared to 7.45% in the previous week. The Telecommunication STW tightened 1bp to 492 while the overall high yield index widened 1bp to 302.

Telecom:

- **Cogent (CCOI) – Bonds rally after equity conferences.** The bonds of Cogent rallied on Friday after the company's CEO attended three consecutive days of equity conferences last week. During the fireside chats at those conferences, management said that they felt comfortable with the firm's capital and liquidity position. They went on to say that cash flow improvement will come mainly from higher margin revenues (waves) and lower capex (less spent on data center development). Cogent said it had not yet launched a formal transaction to refinance its $700mn in unsecured notes due next year in June. However, they pointed out that they were working with a bank and with existing and potential new bondholders to replace the unsecured notes with new secured debt. The bond prices fell earlier in the week after Bloomberg reported that new "pari-plus" debt may be issued to accomplish what the article called a "challenging refinancing."
- **FiberCop (FIBCOP) – Solid 1H results; FTTH progressing on time and below budgeted cost.** H1 revenues were in line, and EBITDAaL was marginally ahead of expectations. The company affirmed FY26 guidance and still expects growth in H2. Q2 revenues of €898m declined 4.4% y/y, bringing H1 revenues to €1,786m (-4.0% y/y; JPMe: €1,784m). Revenue performance reflected continued migration from legacy and FTTC services, partially offset by FTTH growth (+400k active FTTH lines). In H1, B2B2C access revenues declined 3.9% y/y to €1,175m as customers migrated away from legacy technologies, although management highlighted that improved blended ARPU partly offset revenue declines. B2B2B revenues declined 4.2% y/y to €611m, reflecting lower energy-related revenues and weaker contribution from other B2B services, which management expects to reverse in H2 through additional B2B sales, ancillary services, and normal seasonality. Q2 organic EBITDAaL was broadly flat (+0.2%) at €419m, with H1 organic EBITDAaL of €810m ahead of our expectations (-1.7% y/y; JPMe: €802m). EBITDAaL performance was supported by a 6% reduction in opex, driving ~100bp expansion in EBITDAaL margin to 45%. Management reiterated guidance for EBITDAaL growth of "close to 10%" in FY26, with growth expected to be concentrated in H2 and driven by additional B2B services and sales, alongside further cost savings from initiatives already implemented, including workforce reductions, backbone migration, IT separation, and the decommissioning programme. Management noted that ~€198m of annualized run-rate gross efficiencies had been locked in during H1, which will become visible in 2H26 EBITDAaL. See our London counterpart's full report here.
- **Altice France (SFRFP) – Union calling for a work stoppage.** SFR's unions are calling on employees to stop work on the afternoon of September 24 after talks with the consortium looking to acquire the company reportedly yielded weak job protections. According to Les Echos, the buyers would offer only one redeployment option per employee not retained (versus a typical three in a formal redundancy plan) plus up to €4,000 for training, which unions say is insufficient, and they want at least three redeployment offers and departure terms comparable to SFR's 2017

voluntary plan (the current proposal being about 40% lower). The consortium is expected to take on roughly 3,400 of SFR's 8,000 employees, while more than 3,000 staff at Altice Technical Services—described as not included in the takeover and dependent on SFR—remain a major concern. Negotiations continue, with written proposals due Friday and two further meetings planned before month's end.

- **Brightspeed (BSPEED) – In talks with creditors to raise new capital.** Brightspeed is in discussions with its largest creditors regarding the possibility of raising new money to support the buildout of its consumer fiber internet business, according to the WSJ. Brightspeed's owner, Apollo, is reportedly looking to raise a private asset-backed securitization facility, which could be used to repay a portion of Brightspeed's debt or fund further fiber-network expansion. A key uncertainty is how much of any new ABS financing could ultimately be allocated to capital expenditures rather than debt repayment. Brightspeed's existing debt documents require approximately 70% of ABS proceeds to be used to repay first-out debt, although some creditors believe there may be flexibility to structure the transaction in a way that could circumvent or modify the prepayment requirement, according to the article's sources. Brightspeed has warned that there is substantial doubt about its ability to continue as a going concern as it seeks additional financing to address upcoming debt maturities and other obligations, the report said.

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Relative Value Analysis

Table 1: High Performance Compute

				Moody's /	Amount	Recent Quotes			Next Call									
Coupon	Description	Recomm.	Maturity	S&P	Outst.	Bid	YTW	Spread	Date	YTC	Price	Location	Size	Completion	Tenant	Lease	Amort	Leverage
Meta-Partnered SPVs		**NC**																
Beignet Investor LLC (RPLDCI)																		
6.580%	Sec Nts	NC	30-May-49	NR/A+	27,293.8	93 1/4	7.19%	197bp				LA	2.1 GW	Jun-29	Meta	NNN / 4x5yr	Fully amort	
Sopaipilla Investor LLC (TXEDCI)																		
7.534%	1st lien	NC	30-Nov-48	NR/NR	12,639.5	101 1/3	7.44%	249bp				TX	960 MW IT	Dec-28	Meta	NNN / 4x4yr	Fully amort	
QTS		**NC**																
QTS Thunder Managing Issuer LLC (QTS)																		
S+225	Term Loan B	NC	22-Jul-33	Baa3/NR	3250.0	99 2/9	6.93%	307bp				VA / AZ / OH / TX	494 MW IT	Complete	3 IG Hyperscalers	Various	~7% by maturity	
QTS Fayetteville I Dc1-2 LLC (QTSQST)																		
5.700%	Sr Sec Nts	NC	15-Apr-36	Baa2/NR	4,600.0	88 3/5	7.38%	244bp	15-Oct-35	7.34%	100.00	GA	340 MW IT	Complete	Microsoft	Fixed NNN / 20yr + 15yr	Bullet	
RD Michigan Property Owner I LLC		**NC**																
7.500%	Sec Nts (1st Lien)	NC	30-Mar-45	Baa3/NR	14,000.0	94 2/7	8.10%	296bp	30-Apr-29	9.93%	100.00	MI	1.383 GW	Apr-28	Oracle	NNN / ~17.6y WAL + ext	Fully amort	
Hut 8																		
Hut 8 DC LLC (HUTRBA)																		
6.192%	Sec Nts (1.5 Lien)	NC	15-Nov-42	NR/BBB-	3,250.0	95 1/5	6.68%	160bp	15-May-42	6.62%	100.00	LA	330 MW	Oct-27	Fluidstack (Google)	Fixed NNN / 15y + 3x5yr	Fully amort	8.4x
Beacon Point DC LLC (HUTBPA)																		
6.129%	1st lien	NC	30-Nov-42	Baa2/NR	4,250.0	93 1/8	7.03%	207bp	30-May-42	6.84%	100.00	TX	500 MW	Nov-27	Lambda (Nvidia)	Fixed NNN / 15y + 3x5yr	Fully amort	8.0x
Lambda																		
Lambda Compute II LLC (LAMBCM)																		
S+300	Term Loan B	NC	31-Dec-30	Baa2/NR	926.0	100 5/8	6.63%	283bp										
CoreWeave		**Overweight**																
S+450	DDTL-5	NC	15-Nov-31	Ba2/NR	0.0	100 1/2	8.69%	483bp										4.3x
S+550	DDTL-5.5	NC	2-Sep-31	Ba2/NR	0.0	100 1/8	9.26%	547bp										4.3x
9.250%	Sr Nts	OW	1-Jun-30	B1/B	2,000.0	93 1/2	11.43%	675bp	1-Jun-27	23.90%	104.63							8.0x
9.000%	Sr Nts	OW	1-Feb-31	B1/B	1,750.0	90	11.98%	726bp	1-Feb-28	19.27%	104.50							8.0x
9.750%	Sr Nts	OW	1-Oct-31	B1/B	2,750.0	90 1/8	12.44%	768bp	1-Oct-28	17.07%	104.88							8.0x
TeraWulf		**Underweight**																
WULF Compute (WULF)																		
7.750%	Sec Nts	UW	15-Oct-30	Ba2/BB	3,200.0	103 1/3	6.55%	190bp	15-Oct-27	7.33%	103.88	Upstate NY	523 MW	Dec-26	Fluidstack (Google)	Gross / 10yr + 2x5yr	~40% by maturity	5.1x
Fluidstack		**NC**																
Flash Compute (FLASHC)																		
7.250%	Sec Nts	NC	31-Dec-30	Ba3/NR	1,300.0	99 7/8	7.28%	256bp	31-Dec-27	9.94%	103.63	West TX	240 MW	Sep-26	Fluidstack (Google)	Gross / 25y + short to 15-20y	~30% by maturity	5.9x

Source: Company reports and J.P. Morgan estimates.

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Table 2: High Performance Compute (cont.)

				Moody's /	Amount	Recent Quotes			Next Call									
Coupon	Description	Recomm.	Maturity	S&P	Outst.	Bid	YTW	Spread	Date	YTC	Price	Location	Size	Completion	Tenant	Lease	Amort	Leverage
Cipher Digital		**Overweight**																
Cipher Compute LLC (CIFR)																		
7.125%	Sr Sec Nts (1st Lien)	OW	15-Nov-30	Ba3/NR	1,733.0	101 1/4	6.68%	202bp	15-Nov-27	8.68%	103.56	West TX	300 MW	Feb-27	Fluidstack (Google)	Gross / 10yr + 2x5yr	~40% by maturity	4.5x
Black Pearl Compute (BLKPRL)																		
6.125%	Sr Sec Nts	OW	15-Feb-31	Ba2/NR	2,000.0	99 4/5	6.18%	145bp	15-Feb-28	8.19%	103.06	West TX	300 MW	Mar-27	Amazon	Fixed NNN / 15yr + 3x5yr	~30% by maturity	5.7x
Stringray Compute (STNGRY)																		
6.000%	Secured	OW	15-Jun-31	Ba2/NR	810.0	97	6.62%	187bp	15-Jun-28	9.33%	103.00	West TX	100 MW	May-27	Amazon	Fixed NNN / 15yr + 3x5yr	~30% by maturity	6.6x
Applied Digital		**Overweight**																
Applied Digital Corp (APLD)																		
9.250%	Sec Nts	OW	15-Dec-30	NR/BB-	2,350.0	105 1/8	7.44%	279bp	15-Dec-27	8.21%	104.63	ND	330 MW	Jun-26	CoreWeave (@ IG Box)	Gross / 15yr + 3x5yr	~25% by maturity	7.0x
APLD ComputeCo 2 LLC (PFORGE)																		
6.750%	Sr Sec Nts	OW	15-Mar-31	Ba3/NR	2,150.0	95 1/2	7.94%	322bp	15-Mar-28	11.82%	103.38	ND	280 MW	Apr-27	Oracle	Gross / 15yr + 2x5yr	~20% by maturity	8.1x
APLD ComputeCo 3 LLC (ELNFOR)																		
7.000%	Sr Sec Nts (1st Lien)	OW	15-Jun-31	NR/BB-	1,590.0	95 1/8	8.27%	360bp	15-Jun-28	11.82%	103.50	ND	198 MW	Jul-27	CoreWeave	Gross / 15yr + 3x5yr	~13% by maturity	7.6x
Fleet Data Centers		**NC**																
SV RNO Property Owner 1 (TRACTC)																		
5.875%	Sec Nts	NC	1-Mar-31	Ba1/BB+	3,800.0	90	8.62%	389bp	1-Mar-28	15.38%	102.94	Reno	240 MW	Jun-28	Nvidia	YoC NNN / 16yr + 2x10yr	~10% by maturity	8.5x
PR RNO Property Owner 1 (TRACTD)																		
6.500%	Sec Nts	NC	1-May-31	Ba1/BB	4,585.0	90 3/4	8.98%	424bp	1-May-28	14.50%	103.25	Reno	240 MW	Apr-28	Nvidia	YoC NNN / 16yr + 2x10yr	~9% by maturity	9.4x
Fluidstack / Next Frontier JV		**NC**																
Meridian ARC Holdco LLC (MERIDI)																		
6.250%	Sec Nts	NC	30-Apr-31	Ba2/BB-	5,700.0	94	7.79%	305bp	30-Apr-28	11.91%	103.13	IN	581 MW	Nov-27	Fluidstack (Google)	YoC NNN / 15yr + 3x5yr	~15% by maturity	8.4x
Zenith ARC (ZENARC)																		
8.875%	Sec Nts	NC	31-Aug-31	Ba2/BB	2,250.0	93 1/4	10.65%	589bp	31-Aug-28	14.75%	104.44	IN	200 MW	Nov-28	Jane Street	Fixed NNN / 15yr + 2x5yr	~10% by maturity	8.4x
Edged Compute LLC		**NC**																
7.500%	Sec Nts	NC	30-Apr-31	NR/BB+	1,300.0	93 1/4	9.32%	458bp	30-Apr-28	14.10%	103.75	Chi / Atl	114 MW IT	Dec-27	CoreWeave & Alibaba	Mixed / 15&16yr + 2x5yr	~10% by maturity	7.3x
Core Scientific Finance		**NC**																
7.750%	Sec Nts	NC	15-May-31	NR/BB	3,300.0	97 1/7	8.50%	376bp	15-May-28	11.40%	103.88	Various	900 MW	Jun-27	CoreWeave	Gross / most 12yr + 2x5yr	~25% by maturity	5.6x
SE Cosmos LLC		**NC**																
8.875%	Sr Sec Nts (1st Lien)	NC	1-May-31	NR/BB	999.0	96 5/8	9.79%	506bp	1-May-28	13.53%	104.44	Austin TX	70 MW	Jun-27	SoftBank sub	YoC NNN / 15yr + 10yr	None	7.5x
Elk Grove Village Property LLC		**NC**																
7.500%	Sr Sec Nts	NC	15-Jun-31	Ba3/BB-	900.0	94 7/8	8.84%	409bp	15-Jun-28	12.45%	103.75	Chi	108 MW	Feb-27	CoreWeave	Fixed NNN / 15yr + 2x7yr	~22% by maturity	7.0x
Yondr JK 1 LLC		**NC**																
6.875%	Sr Sec Nts (1st Lien)	NC	30-Jun-31	Ba3/NR	715.0	92 3/8	8.85%	411bp	30-Jun-28	13.10%	103.44	VA	48 MW IT	Oct-28	Oracle	Modified Gross / 15yr + 2x5yr	~8% by maturity	8.5x
Galaxy Helios Data Centers II LLC		**NC**																
9.875%	Secured	NC	1-Aug-31	NR/BB-	3,507.0	98 7/8	10.17%	550bp	1-Aug-28	12.79%	104.94	TX	400 MW	Mar-28	CoreWeave	YoC Gross / 15yr + 2x5yr	~11% by maturity	8.2x

Source: Company reports and J.P. Morgan estimates.

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Table 3: Technology: Hardware / Equipment

Coupon	Description	Maturity	Moody's / S&P	Amount Outst.	Recent Quotes Bid	Recent Quotes YTW	Recent Quotes Spread	Next Call Date	Next Call Price	LTM EBITDA	EBITDA Margin	Debt / EBITDA	Net Debt / EBITDA	EBITDA / Interest
CDW LLC														
4.125%	Sr Nts	1-May-25	Baa3/BBB-	211.3	100	4.86%	52bp			$1,976	8.4%	3.0x	2.8x	9.0x
4.250%	Sr Nts	1-Apr-28	Baa3/BBB-	600.0	98 3/8	5.35%	90bp			$1,976	8.4%	3.0x	2.8x	9.0x
3.250%	Sr Nts	15-Feb-29	Baa3/BBB-	700.0	94 2/3	5.62%	102bp			$1,976	8.4%	3.0x	2.8x	9.0x
2.670%	Sr Nts	1-Dec-26	Baa3/BBB-	1,000.0	99 3/7	5.24%	131bp	1-Nov-26	100.00	$1,976	8.4%	3.0x	2.8x	9.0x
3.276%	Sr Nts	1-Dec-28	Baa3/BBB-	500.0	95 2/5	5.50%	90bp	1-Oct-28	100.00	$1,976	8.4%	3.0x	2.8x	9.0x
3.569%	Sr Nts	1-Dec-31	Baa3/BBB-	1,000.0	89	6.03%	127bp	1-Sep-31	100.00	$1,976	8.4%	3.0x	2.8x	9.0x
**Covered by Erica Spear*														
Coherent														
S+175	Term Loan B B-2	2-Jul-29	Ba1/BB+	1,080.0	100	6.11%	225bp			$1,698	23.9%	1.3x	0.1x	8.9x
5.000%	Sr Nts	15-Dec-29	B1/BB-	990.0	97 5/7	5.77%	112bp	14-Dec-26	102.50	$1,698	23.9%	1.9x	0.7x	8.9x
Dell Inc														
6.020%	Sr Sec Nts (1st Lien)	15-Jun-26	Baa2/BBB	2,486.4	101 2/9	4.71%	60bp	15-Mar-26	100.00	$18,807	12.4%	1.8x	1.2x	11.7x
4.900%	Sr Sec Nts (1st Lien)	1-Oct-26	Baa2/BBB+	1,750.0	100	4.77%	96bp			$18,807	12.4%	1.8x	1.2x	11.7x
6.100%	Sr Sec Nts (1st Lien)	15-Jul-27	Baa2/BBB+	500.0	101	4.71%	54bp	15-May-27	100.00	$18,807	12.4%	1.8x	1.2x	11.7x
7.100%	Sr Nts	15-Apr-28	Baa3/BBB+	300.0	103 2/7	4.93%	47bp			$18,807	12.4%	1.8x	1.2x	11.7x
5.300%	Sr Sec Nts (1st Lien)	1-Oct-29	Baa2/BBB+	1,750.0	100 1/8	5.25%	62bp	1-Jul-29	100.00	$18,807	12.4%	1.8x	1.2x	11.7x
6.200%	Sr Sec Nts (1st Lien)	15-Jul-30	Baa2/BBB+	750.0	102 1/2	5.41%	74bp	15-Apr-30	100.00	$18,807	12.4%	1.8x	1.2x	11.7x
8.100%	Sr Sec Nts (1st Lien)	15-Jul-36	Baa2/BBB+	990.8	113 8/9	6.12%	119bp	15-Jan-36	100.00	$18,807	12.4%	1.8x	1.2x	11.7x
6.500%	Sr Nts	15-Apr-38	Baa3/BBB+	387.8	102 1/4	6.22%	123bp			$18,807	12.4%	1.8x	1.2x	11.7x
5.400%	Sr Nts	10-Sep-40	Baa3/BBB+	264.4	91 3/5	6.31%	127bp			$18,807	12.4%	1.8x	1.2x	11.7x
8.350%	Sr Sec Nts (1st Lien)	15-Jul-46	Baa2/BBB+	645.9	119	6.60%	145bp	15-Jan-46	100.00	$18,807	12.4%	1.8x	1.2x	11.7x
**Covered by Erica Spear*														

Source: J.P. Morgan and company reports.

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Table 4: Technology: Hardware / Equipment (cont.)

Coupon	Description	Maturity	Moody's / S&P	Amount Outst.	Recent Quotes Bid	YTW	Spread	Next Call Date	Price	LTM EBITDA	EBITDA Margin	Debt / EBITDA	Net Debt / EBITDA	EBITDA / Interest
NCR Voyix Corp														
5.000%	Sr Nts	1-Oct-28	B2/B+	650.0	97 5/7	6.20%	161bp			$431	17.0%	2.6x	2.0x	7.1x
5.125%	Sr Nts	15-Apr-29	B2/B+	402.9	97 1/4	6.28%	166bp			$431	17.0%	2.6x	2.0x	7.1x
5.250%	Sr Nts	1-Oct-30	B2/B+	52.1	90	8.21%	351bp	1-Oct-26	101.75	$431	17.0%	2.6x	2.0x	7.1x
Nokia														
4.375%	Sr Nts	12-Jun-27	Ba1/BBB-	500.0	99 3/5	4.93%	73bp			$1,781	8.8%	1.9x	-1.0x	11.7x
6.450%	Sr Nts	15-Mar-29	NR/NR	206.0	100 6/7	6.08%	147bp			$1,781	8.8%	1.9x	-1.0x	11.7x
6.625%	Sr Nts	15-May-39	Ba1/BBB-	500.0	100 2/3	6.54%	153bp			$1,781	8.8%	1.9x	-1.0x	11.7x
Pitney Bowes														
6.875%	Sr Nts	15-Mar-27	B2/B+	380.0	99 2/3	7.07%	308bp	15-Mar-26	100.00	$590	31.6%	3.7x	3.2x	9.7x
7.250%	Sr Nts	15-Mar-29	B2/B+	476.0	100 1/2	6.26%	215bp	15-Mar-27	100.00	$590	31.6%	3.7x	3.2x	9.7x
5.250%	Sr Nts	15-Jan-37	B3/B+	35.8	76 3/4	8.70%	374bp			$590	31.6%	3.7x	3.2x	9.7x
Seagate Technology														
4.091%	Sr Nts	1-Jun-29	Ba3/BB+	430.9	97	5.25%	62bp	1-Mar-29	100.00	$3,213	26.3%	1.2x	0.7x	11.3x
3.125%	Sr Nts	15-Jul-29	Ba3/BB+	99.8	92 1/8	6.18%	155bp			$3,213	26.3%	1.2x	0.7x	11.3x
4.125%	Sr Nts	15-Jan-31	Ba3/BB+	213.2	93 3/5	5.82%	110bp	15-Oct-30	100.00	$3,213	26.3%	1.2x	0.7x	11.3x
3.375%	Sr Nts	15-Jul-31	Ba3/BB+	44.8	86 7/8	6.58%	183bp	15-Jan-27	101.13	$3,213	26.3%	1.2x	0.7x	11.3x
5.750%	Sr Nts	1-Dec-34	Ba3/BB+	327.6	99	5.90%	102bp	1-Jun-34	100.00	$3,213	26.3%	1.2x	0.7x	11.3x
Axon Enterprises														
6.125%	Sr Nts	15-Mar-30	Ba2/BB+	1,000.0	100 3/4	5.80%	118bp	15-Mar-27	103.06	$757	23.5%	2.3x	1.4x	2.7x
6.250%	Sr Nts	15-Mar-33	Ba2/BB+	750.0	100 4/7	6.06%	139bp	15-Mar-28	103.13	$757	23.5%	2.3x	1.4x	2.7x

Source: J.P. Morgan and company reports

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Table 5: Technology: Hardware / Equipment (cont.)

Coupon	Description	Maturity	Moody's / S&P	Amount Outst.	Recent Quotes Bid	Recent Quotes YTW	Recent Quotes Spread	Next Call Date	Next Call Price	LTM EBITDA	EBITDA Margin	Debt / EBITDA	Net Debt / EBITDA	EBITDA / Interest
TTM Technologies														
S+175	Term Loan B	30-May-30	Ba1/BB+	394.7	100	6.17%	231bp			$547	16.2%	0.9x	0.0x	12.5x
4.000%	Sr Nts	1-Mar-29	Ba3/B+	500.0	95 3/4	5.87%	126bp			$547	16.2%	1.8x	0.9x	12.5x
Xerox														
S+400	Term Loan B	19-Nov-29	B2/B-	673.4	76 2/7	18.93%	1,507bp			$771	9.9%	2.0x	1.4x	2.2x
5.000%	Sr Nts	15-Aug-25	B3/B+	388.0	99	7.66%	340bp	15-Jul-25	100.00	$771	9.9%	5.5x	4.8x	2.2x
5.500%	Sr Nts	15-Aug-28	Caa3/D	556.1	57 1/6	39.13%	3,457bp	15-Jul-28	100.00	$771	9.9%	5.5x	4.8x	2.2x
8.875%	Guar Sr Nts	30-Nov-29	Caa3/CCC	500.0	40 1/8	46.39%	4,174bp	30-Nov-26	104.44	$771	9.9%	5.5x	4.8x	2.2x
10.250%	Sec Nts	15-Oct-30	B2/B-	400.0	89 4/7	13.65%	894bp	15-Apr-27	105.13	$771	9.9%	2.0x	1.4x	2.2x
13.500%	Sr Sec Nts (2nd Lien)	15-Apr-31	Caa1/CCC	500.0	68	25.75%	2,101bp	15-Apr-28	106.75	$771	9.9%	2.7x	2.0x	2.2x
4.800%	Sr Nts	1-Mar-35	Ca/CCC	250.0	33 2/3	22.81%	1,791bp			$771	9.9%	5.5x	4.8x	2.2x
6.750%	Sr Nts	15-Dec-39	Ca/CCC	350.0	34	22.56%	1,753bp			$771	9.9%	5.5x	4.8x	2.2x
Western Digital														
4.750%	Sr Nts	15-Feb-26	Ba2/BB	2,300.0	99 1/2	5.31%	122bp	15-Nov-25	100.00	$4,865	37.7%	0.2x	-0.1x	29.5x
2.850%	Sr Nts	1-Feb-29	Ba1/BBB-	500.0	90 3/4	5.56%	150bp	1-Dec-28	100.00	$4,865	37.7%	0.2x	-0.1x	29.5x
3.100%	Sr Nts	1-Feb-32	Ba1/BBB-	500.0	84 3/8	5.91%	172bp	1-Nov-31	100.00	$4,865	37.7%	0.2x	-0.1x	29.5x
Insight Enterprises														
6.625%	Sr Nts	15-May-32	Ba3/BB+	500.0	100 1/2	6.43%	180bp	15-May-27	103.31	$636	7.4%	2.3x	1.7x	6.7x
Zebra Technologies														
6.500%	Sr Nts	1-Jun-32	Ba2/BB	500.0	100 3/4	6.19%	156bp	1-Jun-27	103.25	$1,225	21.0%	2.2x	2.0x	11.3x

Source: J.P. Morgan and company reports.

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Table 6: Technology: Electronic Manufacturing Services (EMS)

Coupon	Description	Maturity	Moody's / S&P	Amount Outst.	Recent Quotes			Next Call		LTM EBITDA	EBITDA Margin	Debt / EBITDA	Net Debt / EBITDA	EBITDA / Interest
					Bid	YTW	Spread	Date	Price					
Flex Ltd.														
4.750%	Sr Nts	15-Jun-25	Baa3/BBB-	592.4	99 3/4	5.82%	152bp			$2,010.0	6.9%	3.0x	1.5x	12.3x
4.875%	Sr Nts	15-Jun-29	Baa3/BBB-	650.0	98 5/9	5.42%	75bp	15-Mar-29	100.00	$2,010.0	6.9%	3.0x	1.5x	12.3x
4.875%	Sr Nts	12-May-30	Baa3/BBB-	650.0	97 1/3	5.68%	100bp	12-Feb-30	100.00	$2,010.0	6.9%	3.0x	1.5x	12.3x
Jabil Circuit														
3.950%	Sr Nts	12-Jan-28	Baa3/BBB-	500.0	98 1/2	5.13%	75bp	12-Oct-27	100.00	$2,136.0	6.4%	1.8x	1.2x	14.5x
3.600%	Sr Nts	15-Jan-30	Baa3/BBB-	500.0	94 1/6	5.53%	87bp	15-Oct-29	100.00	$2,136.0	6.4%	1.8x	1.2x	14.5x
3.000%	Sr Nts	15-Jan-31	Baa3/BBB-	600.0	89 5/7	5.70%	98bp	15-Oct-30	100.00	$2,136.0	6.4%	1.8x	1.2x	14.5x
4.250%	Sr Nts	15-May-27	Baa3/BBB-	500.0	99 7/9	4.51%	42bp	15-Apr-27	100.00	$2,136.0	6.4%	1.8x	1.2x	14.5x

Source: J.P. Morgan and company reports.

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Table 7: Technology: Semiconductors

Coupon	Description	Maturity	Moody's / S&P	Amount Outst.	Recent Quotes Bid	YTW	Spread	Next Call Date	Price	LTM EBITDA	EBITDA Margin	Debt/ EBITDA	Net Debt / EBITDA	EBITDA / Interest
Advanced Micro Devices														
2.375%	Sr Nts	1-Jun-30	A1/A	750.0	90 2/5	5.23%	57bp			$11,540.0	27.9%	0.4x	-0.8x	78.5x
3.924%	Sr Nts	1-Jun-32	A1/A	500.0	93	5.34%	59bp			$11,540.0	27.9%	0.4x	-0.8x	78.5x
**Covered by Erica Spear*														
Amkor Technologies														
5.875%	Sr Nts	1-Oct-33	Ba3/BB	500.0	96 5/6	6.44%	160bp	1-Oct-28	102.94	$1,392.8	18.7%	1.8x	0.0x	18.2x
Micron Technology														
4.185%	Sr Nts	15-Feb-27	Baa3/BBB-	900.0	99	4.76%	76bp	15-Dec-26	100.00	$68,316.0	75.7%	0.1x	-0.3x	297.0x
5.327%	Sr Nts	6-Feb-29	Baa3/BBB-	700.0	101 2/9	4.95%	91bp	6-Nov-28	100.00	$68,316.0	75.7%	0.1x	-0.3x	297.0x
4.663%	Sr Nts	15-Feb-30	Baa3/BBB-	850.0	98 3/7	5.03%	94bp	15-Nov-29	100.00	$68,316.0	75.7%	0.1x	-0.3x	297.0x
**Covered by Erica Spear*														
Microchip Technology														
4.250%	Sr Nts	1-Sep-25	Baa2/NR	1,200.0	99 2/3	4.96%	72bp			$1,469.7	28.7%	3.7x	3.5x	6.9x
5.050%	Sr Nts	15-Mar-29	Baa2/NR	1,000.0	99 5/8	5.21%	60bp	15-Feb-29	100.00	$1,469.7	28.7%	3.7x	3.5x	6.9x
**Covered by Erica Spear*														
NXP BV														
4.400%	Sr Nts	1-Jun-27	Baa2/BBB+	500.0	99 3/5	4.95%	76bp	1-May-27	100.00	$5,106.0	38.7%	2.1x	1.5x	12.8x
**Covered by Erica Spear*														
ON Semiconductor Corp														
3.875%	Sr Nts	1-Sep-28	Ba2/BB	700.0	96 5/7	5.66%	108bp			$1,586.6	25.6%	2.5x	0.0x	25.8x
Sensata Technologies														
4.000%	Sr Nts	15-Apr-29	Ba2/BB+	239.9	97 1/2	5.04%	42bp			$710.4	18.8%	3.4x	2.8x	5.5x
4.375%	Sr Nts	15-Feb-30	Ba2/BB+	450.0	95 2/3	5.78%	112bp	15-Nov-29	100.00	$710.4	18.8%	3.4x	2.8x	5.5x
5.875%	Sr Nts	1-Sep-30	Ba2/BB+	500.0	99 8/9	5.91%	121bp	1-Sep-27	100.00	$710.4	18.8%	3.4x		
3.750%	Sr Nts	15-Feb-31	Ba2/BB+	750.0	92 1/8	5.79%	107bp	15-Feb-27	100.94	$710.4	18.8%	3.4x		
Qorvo Inc														
4.375%	Sr Nts	15-Oct-29	Ba1/BBB-	850.0	95 3/4	5.90%	125bp	15-Oct-26	100.73	$723.2	19.8%	2.1x		
3.375%	Sr Nts	1-Apr-31	Ba1/BBB-	700.0	90 6/7	5.68%	95bp	1-Apr-27	101.13	$723.2	19.8%	2.1x		
**Covered by Erica Spear*														

Source: J.P. Morgan and company reports.



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Table 8: Technology: Software & Services

Coupon	Description	Maturity	Moody's / S&P	Amount Outst.	Recent Quotes Bid	Recent Quotes YTW	Recent Quotes Spread	Next Call Date	Next Call Price	LTM EBITDA	EBITDA Margin	Debt/ EBITDA	Net Debt / EBITDA	EBITDA / Interest
ASGN Incorporated														
4.625%	Sr Nts	15-May-28	Ba3/BB	550.0	96 2/5	6.94%	245bp			$400.8	10.1%	3.6x	3.2x	5.6x
BMC Software														
S+300	Term Loan B-3	30-Jul-31	B2/B	4,245.4	95	9.06%	520bp							
CDK Global Inc														
8.000%	Sr Sec Nts (1st Lien)	15-Jun-29	Caa2/CCC	755.0	56	33.64%	2,902bp	15-Jun-27	100.00					
7.250%	Sec Nts (1st Lien)	15-Jun-29	Caa2/CCC	750.0	54 1/4	34.06%	2,943bp	15-Jun-27	100.00					
Crowdstrike Holdings Inc														
3.000%	Sr Nts	15-Feb-29	Baa2/BBB-	750.0	94 4/5	5.30%	69bp			$1,380.2	25.6%	0.5x	-3.1x	51.8x
Elastic NV														
4.125%	Sr Nts	15-Jul-29	Ba2/BB	575.0	95 3/4	5.76%	113bp			$288.4	16.0%	2.0x	-3.1x	11.5x
Go Daddy Group														
S+175	Term Loan B-3	30-May-31	Ba1/BB	980.0	98 8/9	6.55%	269bp			$1,687.4	33.1%	1.4x	0.7x	11.2x
5.250%	Sr Nts	1-Dec-27	Ba3/BB-	600.0	99 4/7	5.61%	127bp			$1,687.4	33.1%	2.2x	1.6x	11.2x
3.500%	Sr Nts	1-Mar-29	Ba3/BB-	800.0	94 1/4	6.04%	143bp			$1,687.4	33.1%	2.2x	1.6x	11.2x
GrubHub Holdings Inc														
5.500%	Sr Nts	1-Jul-27	B3/B-	500.0	92	9.51%	551bp	1-Jul-25	100.00					
J2 Global Inc														
4.625%	Sr Nts	15-Oct-30	Ba3/BB	460.0	93 2/5	6.49%	178bp	15-Oct-26	101.54	$427.5	32.3%	2.0x	-1.7x	16.5x
Gen Digital														
6.750%	Sr Nts	30-Sep-27	B1/BB-	900.0	100	6.55%	274bp	30-Sep-26	100.00	$2,610.0	51.4%	3.1x	2.9x	4.9x
7.125%	Sr Nts	30-Sep-30	B1/BB-	600.0	101 1/4	5.86%	157bp	30-Sep-26	101.78	$2,610.0	51.4%	3.1x	2.9x	4.9x
Open Text														
S+275	Term Loan B-3	31-Jan-30	Ba1/BBB-	2,173.5	99 1/2	6.33%	237bp			$1,903.2	36.3%	1.3x	0.8x	6.1x
6.900%	Sr Sec Nts	1-Dec-27	Ba1/BBB-	1,000.0	101 3/8	5.63%	132bp	1-Nov-27	100.00	$1,903.2	36.3%	1.3x	0.8x	6.1x
3.875%	Sr Nts	15-Feb-28	Ba3/BB	900.0	97 1/3	5.83%	142bp			$1,903.2	36.3%	3.0x	2.5x	6.1x
3.875%	Sr Nts	1-Dec-29	Ba3/BB	850.0	92 1/4	6.57%	192bp	1-Dec-26	100.00	$1,903.2	36.3%	3.0x	2.5x	6.1x
4.125%	Sr Nts	15-Feb-30	Ba3/BB	900.0	92 1/6	6.72%	205bp	15-Feb-27	100.69	$1,903.2	36.3%	3.0x	2.5x	6.1x
4.125%	Sr Nts	1-Dec-31	Ba3/BB	650.0	88 1/8	6.87%	210bp	1-Dec-26	102.06	$1,903.2	36.3%	3.0x	2.5x	6.1x

Source: J.P. Morgan and company reports.

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Table 9: Technology: Software & Services (cont.)

Coupon	Description	Maturity	Moody's / S&P	Amount Outst.	Recent Quotes Bid	YTW	Spread	Next Call Date	Price	LTM EBITDA	EBITDA Margin	Debt/ EBITDA	Net Debt / EBITDA	EBITDA / Interest
PTC Inc														
4.000%	Sr Nts	15-Feb-28	Ba2/BB	500.0	97 1/2	5.84%	143bp			$1,216.9	41.2%	1.3x	1.0x	18.6x
Rackspace Hosting Inc														
S+275	Term Loan-3	15-May-28	Caa2/CCC+	1,601.5	87 5/6	15.57%	1,171bp			$287.1	10.6%	8.3x	7.9x	2.8x
S+625	Term Loan B-3	15-May-28	B2/B	268.8	101	9.89%	603bp			$287.1	10.6%	1.8x	1.5x	2.8x
3.500%	Sr Sec Nts (1st Lien)	15-Feb-28	Caa3/CCC-	43.9	69 7/8	31.22%	2,681bp			$287.1	10.6%	8.6x	8.3x	2.8x
3.500%	Sec Nts (1st Lien)	15-May-28	Caa2/CCC+	250.3	82 1/4	15.94%	1,145bp			$287.1	10.6%	8.3x	7.9x	2.8x
5.375%	Sr Nts	1-Dec-28	Ca/CCC-	89.4	79	17.11%	1,252bp			$287.1	10.6%	9.7x	9.3x	2.8x
Snap Inc														
6.875%	Sr Nts	1-Mar-33	B1/BB-	1,500.0	97 1/8	7.44%	263bp	1-Mar-28	103.44	$1,022.9	16.1%	3.4x	0.8x	7.1x
6.875%	Sr Nts	15-Mar-34	B1/BB-	550.0	96 3/8	7.52%	266bp	15-Sep-28	103.44	$1,022.9	16.1%	3.4x	0.8x	7.1x
SS&C Technologies														
S+200	Term Loan B-3	9-May-31	Ba1/BB+	3,935.0	100	6.38%	252bp			$2,598.1	39.6%	1.7x	1.5x	10.3x
5.500%	Sr Nts	30-Sep-27	Ba3/B+	2,000.0	99 5/8	5.87%	158bp			$2,598.1	39.6%	3.0x	2.8x	10.3x
6.500%	Sr Nts	1-Jun-32	Ba3/B+	750.0	100	6.46%	183bp	1-Jun-27	103.25	$2,598.1	39.6%	3.0x	2.8x	10.3x
TriNet HR Corp														
3.500%	Sr Nts	1-Mar-29	Ba3/BB	500.0	94 4/9	5.95%	134bp			$471.0	9.6%	1.9x	1.2x	8.7x
7.125%	Sr Nts	15-Aug-31	Ba3/BB	400.0	101	6.53%	196bp	15-Aug-27	101.78	$471.0	9.6%	1.9x	1.2x	8.7x
Twilio Inc														
3.625%	Sr Nts	15-Mar-29	Ba1/BB+	500.0	95 2/3	5.51%	89bp			$1,155.3	20.7%	0.9x	0.1x	30.7x
3.875%	Sr Nts	15-Mar-31	Ba1/BB+	500.0	93	5.68%	95bp			$1,155.3	20.7%	0.9x	0.1x	30.7x
Unisys														
6.875%	Sr Sec Nts	1-Nov-27	B2/BB-	485.0	97	8.18%	417bp	1-Nov-25	100.00	$276.9	14.2%	2.7x	1.6x	3.5x

Source: J.P. Morgan and company reports.

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Table 10: Technology: Fintech / Payment Processors

Coupon	Description	Maturity	Moody's / S&P	Amount Outst.	Recent Quotes Bid	Recent Quotes YTW	Recent Quotes Spread	Next Call Date	Next Call Price	LTM EBITDA	EBITDA Margin	Debt/ EBITDA	Net Debt / EBITDA	EBITDA / Interest
Paysafe Limited														
S+275	Term Loan B	28-Jun-28	B2/B	0.0	96 2/3	9.12%	533bp			$428.8	24.3%	6.1x	5.6x	3.1x
4.000%	Sr Sec Nts	15-Jun-29	B2/B	345.6	85 4/7	10.11%	548bp			$428.8	24.3%	6.1x	5.6x	3.1x
Block Inc														
2.750%	Sr Nts	1-Jun-26	Ba2/BB+	1,000.0	97	5.39%	132bp	1-May-26	100.00	$3,293.9	13.2%	2.4x	-0.2x	25.5x
3.500%	Sr Nts	1-Jun-31	Ba1/BB+	1,000.0	90 3/4	5.76%	102bp	1-Mar-31	100.00	$3,293.9	13.2%	2.4x	-0.2x	25.5x
6.500%	Sr Nts	15-May-32	Ba2/BB+	2,000.0	101	6.20%	214bp	15-May-27	103.25	$3,293.9	13.2%	2.4x	-0.2x	25.5x

Source: J.P. Morgan and company reports.

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Table 11: Telecommunications: Rural, Regional, and National Wireless

Coupon	Description	Maturity	Moody's / S&P	Amount Outst.	Recent Quotes Bid	YTW	Spread	Next Call Date	Price	LTM EBITDA	EBITDA Margin	Debt / EBITDA	Net Debt / EBITDA	EBITDA / Interest
Altice International Sarl USD														
S+500	Term Loan B	29-Oct-27	Caa2/CCC	1,600.0	59 1/4	62.92%	5,906bp			$1,791	37.1%	1.9x	1.4x	3.6x
9.625%	Sec Nts	15-Jul-27	Caa2/CCC	375.0	61 1/4	81.22%	7,700bp			$1,791	37.1%	5.2x	4.8x	3.6x
5.000%	Sr Sec Nts	15-Jan-28	Caa2/CCC	1,200.0	60	48.89%	4,451bp			$1,791	37.1%	5.2x	4.8x	3.6x
5.750%	Sr Sec Nts	15-Aug-29	Caa2/CCC	2,050.0	59 1/2	26.47%	2,184bp			$1,791	37.1%	5.2x	4.8x	3.6x
Altice France USD														
9.500%	Sec Nts	1-Nov-29	Caa1/CCC+	1,333.8	100 5/8	8.86%	457bp	1-Oct-26	101.00	$3,257	31.8%	6.1x	5.3x	2.4x
6.875%	Sr Sec Nts	15-Oct-30	Caa1/CCC+	838.4	96 1/6	7.99%	328bp	1-Oct-26	101.00	$3,257	31.8%	6.1x	5.3x	2.4x
6.500%	Sr Sec Nts	15-Oct-31	Caa1/CCC+	366.0	95 5/8	7.55%	278bp	1-Oct-26	101.00	$3,257	31.8%	6.1x	5.3x	2.4x
6.500%	Sr Sec Nts	15-Mar-32	Caa1/CCC+	1,905.5	95 3/7	7.53%	275bp	1-Oct-26	101.00	$3,257	31.8%	6.1x	5.3x	2.4x
6.875%	Sec Nts	15-Jul-32	Caa1/CCC+	1,524.2	96 1/8	7.71%	291bp	1-Oct-26	101.00	$3,257	31.8%	6.1x	5.3x	2.4x
10.000%	Sr Nts	15-Jan-33	Caa3/CCC-	948.0	93 3/5	11.43%	661bp	1-Oct-26	101.00	$3,257	31.8%	7.4x	6.6x	2.4x
Iliad USD														
7.000%	Sr Sec Nts	15-Oct-28	B1/BB-	900.0	100	6.48%	264bp	15-Oct-26	100.00	$3,791	38.3%	4.2x	3.8x	8.7x
8.500%	Sr Sec Nts	15-Apr-31	B1/BB-	950.0	104 3/5	6.53%	191bp	15-Apr-27	104.25	$3,791	38.3%	4.2x	3.8x	8.7x
7.000%	Sr Sec Nts	15-Apr-32	B1/BB-	850.0	100 1/8	6.96%	230bp	1-Dec-27	103.50	$3,791	38.3%	4.2x	3.8x	8.7x
Telecom Italia														
6.375%	Sr Nts	15-Nov-33	Ba1/BB+	499.2	103	5.84%	99bp			$3,673	25.2%	4.3x	3.0x	4.5x
6.000%	Sr Nts	30-Sep-34	Ba1/BB+	500.0	100 3/7	5.93%	105bp			$3,673	25.2%	4.3x	3.0x	4.5x
7.200%	Sr Nts	18-Jul-36	Ba1/BB+	500.0	108 4/9	6.05%	109bp			$3,673	25.2%	4.3x	3.0x	4.5x
7.721%	Sr Nts	4-Jun-38	Ba1/BB+	500.0	112	6.26%	127bp			$3,673	25.2%	4.3x	3.0x	4.5x

**Covered by Andrew Webb*

Source: J.P. Morgan and company reports.

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Table 12: Telecommunications: Rural, Regional, and National Wireless (cont.)

Coupon	Description	Maturity	Moody's / S&P	Amount Outst.	Recent Quotes Bid	YTW	Spread	Next Call Date	Price	LTM EBITDA	EBITDA Margin	Debt / EBITDA	Net Debt / EBITDA	EBITDA / Interest
T-Mobile														
3.750%	Sr Sec Nts (1st Lien)	15-Apr-27	Baa1/BBB+	3,999.4	99 1/2	4.55%	41bp	15-Feb-27	100.00	$35,909	39.0%	2.2x	2.1x	9.5x
2.050%	Sr Sec Nts (1st Lien)	15-Feb-28	Baa1/BBB+	1,749.2	96	4.93%	52bp	15-Dec-27	100.00	$35,909	39.0%	2.2x	2.1x	9.5x
2.625%	Sr Nts	15-Feb-29	Baa1/BBB+	1,000.0	94 3/7	5.09%	48bp			$35,909	39.0%	2.2x	2.1x	9.5x
3.375%	Sr Nts	15-Apr-29	Baa1/BBB+	2,350.0	95 6/7	5.10%	48bp			$35,909	39.0%	2.2x	2.1x	9.5x
3.875%	Sr Sec Nts (1st Lien)	15-Apr-30	Baa1/BBB+	6,999.2	95 1/3	5.32%	64bp	15-Jan-30	100.00	$35,909	39.0%	2.2x	2.1x	9.5x
2.550%	Sr Sec Nts (1st Lien)	15-Feb-31	Baa1/BBB+	2,499.7	88 5/8	5.47%	75bp	15-Nov-30	100.00	$35,909	39.0%	2.2x	2.1x	9.5x
2.875%	Sr Nts	15-Feb-31	Baa1/BBB+	1,000.0	90	5.47%	75bp	15-Feb-27	100.96	$35,909	39.0%	2.2x	2.1x	9.5x
3.500%	Sr Nts	15-Apr-31	Baa1/BBB+	2,450.0	92 1/6	5.45%	72bp	15-Apr-27	101.17	$35,909	39.0%	2.2x	2.1x	9.5x
2.250%	Sr Sec Nts (1st Lien)	15-Nov-31	Baa1/BBB+	1,000.0	85 2/3	5.46%	70bp	15-Aug-31	100.00	$35,909	39.0%	2.2x	2.1x	9.5x
4.375%	Sr Sec Nts (1st Lien)	15-Apr-40	Baa1/BBB+	2,000.0	82 3/4	6.28%	125bp	15-Oct-39	100.00	$35,909	39.0%	2.2x	2.1x	9.5x
3.000%	Sr Sec Nts (1st Lien)	15-Feb-41	Baa1/BBB+	2,500.0	69	6.29%	124bp	15-Aug-40	100.00	$35,909	39.0%	2.2x	2.1x	9.5x
4.500%	Sr Sec Nts (1st Lien)	15-Apr-50	Baa1/BBB+	3,000.0	75	6.60%	137bp	15-Oct-49	100.00	$35,909	39.0%	2.2x	2.1x	9.5x
3.300%	Sr Sec Nts (1st Lien)	15-Feb-51	Baa1/BBB+	3,000.0	60 4/9	6.57%	132bp	15-Aug-50	100.00	$35,909	39.0%	2.2x	2.1x	9.5x
3.600%	Sr Sec Nts (1st Lien)	15-Nov-60	Baa1/BBB+	1,698.0	59 1/9	6.64%	119bp	15-May-60	100.00	$35,909	39.0%	2.2x	2.1x	9.5x
**Covered by Erica Spear*														
Sprint														
5.152%	Sr Sec Nts (1st Lien)	20-Mar-28	Aa2/NR	643.1	99 7/8	5.24%	80bp			$35,909	39.0%	2.2x	2.1x	9.5x
6.875%	Sr Nts	15-Nov-28	Baa1/BBB+	2,475.0	103 3/4	5.03%	44bp			$35,909	39.0%	2.2x	2.1x	9.5x
8.750%	Sr Nts	15-Mar-32	Baa1/BBB+	2,000.0	114 1/3	5.68%	90bp			$35,909	39.0%	2.2x	2.1x	9.5x

Source: J.P. Morgan and company reports.

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Table 13: Telecommunications: Towers

Coupon	Description	Maturity	Moody's / S&P	Amount Outst.	Recent Quotes Bid	Recent Quotes YTW	Recent Quotes Spread	Next Call Date	Next Call Price	LTM EBITDA	EBITDA Margin	Debt / EBITDA	Net Debt / EBITDA	EBITDA / Interest	Total Debt / TEV
American Tower															
3.375%	Sr Nts	15-Oct-26	Baa2/BBB+	1,000.0	100	4.27%	43bp			$7,277	66.5%	6.2x	5.9x	5.2x	35%
3.550%	Sr Nts	15-Jul-27	Baa2/BBB+	750.0	99	4.69%	46bp	15-Apr-27	100.00	$7,277	66.5%	6.2x	5.9x	5.2x	35%
3.600%	Sr Nts	15-Jan-28	Baa2/BBB+	700.0	98 1/7	5.05%	67bp	15-Oct-27	100.00	$7,277	66.5%	6.2x	5.9x	5.2x	35%
3.950%	Sr Nts	15-Mar-29	Baa2/BBB+	600.0	97	5.20%	59bp	15-Dec-28	100.00	$7,277	66.5%	6.2x	5.9x	5.2x	35%
**Covered by Erica Spear*															
Crown Castle International*															
3.300%	Sr Nts	1-Jul-30	Baa3/BBB	709.3	92 3/7	5.53%	85bp	1-Apr-30	100.00	$2,786	66.9%	8.4x	8.0x	3.0x	18%
2.500%	Sr Nts	15-Jul-31	Baa3/BBB	712.1	86 5/6	5.64%	89bp	15-Apr-31	100.00	$2,786	66.9%	8.4x	8.0x	3.0x	18%
4.150%	Sr Nts	1-Jul-50	Baa3/BBB	493.0	72 4/9	6.43%	119bp	1-Jan-50	100.00	$2,786	66.9%	8.4x	8.0x	3.0x	18%
**Covered by Erica Spear*															
SBA Communications															
3.875%	Sr Nts	15-Feb-27	Ba3/BBB	1,500.0	99 1/2	4.96%	89bp			$1,939	67.5%	6.7x	6.5x	3.7x	10%
3.125%	Sr Nts	1-Feb-29	Ba3/BBB	1,500.0	95	5.37%	77bp			$1,939	67.5%	6.7x	6.5x	3.7x	10%

Source: J.P. Morgan and company reports.

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Table 14: Wireline Telecommunications

Coupon	Description	Maturity	Moody's / S&P	Amount Outst.	Recent Quotes Bid	YTW	Spread	Next Call Date	Price	LTM EBITDA	EBITDA Margin	Debt / EBITDA	Net Debt / EBITDA	EBITDA / Interest
Cogent														
7.000%	Sr Nts	15-Jun-27	B3/B-	300.0	82 1/4	35.50%	3,131bp			$300	31.4%	7.8x	7.2x	1.6x
7.000%	Sr Nts	15-Jun-27	B3/B-	450.0	82	35.97%	3,178bp			$300	31.4%	7.8x	7.2x	1.6x
6.500%	Sr Sec Nts	1-Jul-32	Ba2/B+	600.0	72 1/8	13.59%	880bp	1-Jul-28	103.25	$300	31.4%	5.3x	4.7x	1.6x
Equinix														
2.900%	Sr Nts	18-Nov-26	Baa1/BBB+	600.0	99 2/3	4.49%	58bp	18-Sep-26	100.00	$4,975	50.7%	4.7x	4.2x	8.7x
3.200%	Sr Nts	18-Nov-29	Baa1/BBB+	1,200.0	93 5/6	5.33%	67bp	18-Aug-29	100.00	$4,975	50.7%	4.7x	4.2x	8.7x
**Covered by Erica Spear*														
Frontier Communications														
6.750%	Sr Nts	15-May-27	NR/NR	90.9	100 1/2	5.97%	180bp			$2,422	39.7%	1.5x	1.4x	3.0x
6.860%	Sr Nts	1-Feb-28	Baa2/NR	24.0	100	6.88%	248bp			$2,422	39.7%	1.5x	1.4x	3.0x
6.730%	Sr Nts	15-Feb-28	NR/NR	34.4	101 1/4	5.79%	138bp			$2,422	39.7%	1.5x	1.4x	3.0x
8.500%	1st Mtg Nts	15-Nov-31	NR/NR	47.0	107 1/4	6.81%	205bp			$2,422	39.7%	1.2x	1.0x	3.0x
FiberCop SpA USD														
6.375%	Sec Nts	15-Nov-33	Ba1/BB+	500.0	98	6.73%	188bp			$2,125	56.3%	6.3x	5.0x	3.7x
6.000%	Sec Nts	30-Sep-34	Ba1/BB+	500.0	95	6.80%	192bp			$2,125	56.3%	6.3x	5.0x	3.7x
7.200%	Sec Nts	18-Jul-36	Ba1/BB+	500.0	100 5/7	7.09%	214bp			$2,125	56.3%	6.3x	5.0x	3.7x
7.721%	Sec Nts	4-Jun-38	Ba1/BB+	500.0	102 2/3	7.37%	238bp			$2,125	56.3%	6.3x	5.0x	3.7x

Source: Company reports and J.P. Morgan estimates.

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Table 15: Wireline Telecommunications (cont.)

Coupon	Description	Maturity	Moody's / S&P	Amount Outst.	Recent Quotes Bid	YTW	Spread	Next Call Date	Price	LTM EBITDA	EBITDA Margin	Debt / EBITDA	Net Debt / EBITDA	EBITDA / Interest
Level 3 Communications														
S+275	Term Loan B	29-Mar-32	Ba3/B+	2,400.0	100 2/9	7.05%	319bp			$2,553	39.0%	2.7x	2.5x	3.4x
4.250%	Sr Nts	1-Jul-28	B3/B-	5.7	99 5/8	4.47%	bp			$2,553	39.0%	3.9x	3.7x	3.4x
3.625%	Sr Nts	15-Jan-29	B3/B-	8.5	97 3/8	4.82%	21bp			$2,553	39.0%	3.9x	3.7x	3.4x
4.875%	Sec Nts (2nd Lien)	15-Jun-29	NR/B+	10.9	99 1/2	5.06%	43bp	22-Mar-27	101.16	$2,553	39.0%	3.9x	3.7x	3.4x
3.750%	Sr Nts	15-Jul-29	B3/B-	59.5	94 1/2	5.88%	124bp			$2,553	39.0%	3.9x	3.7x	3.4x
3.875%	Sr Nts	15-Nov-29	B3/B-	53.9	93 7/8	6.02%	137bp	15-Aug-29	100.00	$2,553	39.0%	3.9x	3.7x	3.4x
3.875%	Sr Sec Nts (2nd Lien)	15-Oct-30	NR/B+	24.4	99 1/8	4.10%	bp	22-Mar-27	100.00	$2,553	39.0%	3.9x	3.7x	3.4x
4.000%	Sr Sec Nts (2nd Lien)	15-Apr-31	NR/B+	20.4	91 1/8	6.25%	151bp	22-Mar-27	100.00	$2,553	39.0%	3.9x	3.7x	3.4x
6.875%	Sec Nts (1st Lien)	30-Jun-33	Ba3/B+	2,000.0	100 5/6	6.62%	193bp	30-Jun-28	103.44	$2,553	39.0%	2.7x	2.5x	3.4x
7.000%	Sr Sec Nts (1st Lien)	31-Mar-34	Ba3/B+	2,425.0	101 1/2	6.56%	186bp	31-Aug-28	103.50	$2,553	39.0%	2.7x	2.5x	3.4x
7.500%	Sr Nts	15-Feb-37	B3/B-	1,000.0	97 3/4	7.81%	284bp	15-Aug-31	103.75	$2,553	39.0%	3.9x	3.7x	3.4x
Lumen Technologies (CenturyLink)														
6.875%	Sr Nts	15-Jan-28	Caa1/B	130.7	100 3/5	6.40%	202bp			$2,935	24.8%	4.5x	3.9x	2.9x
6.875%	Sr Nts	15-Jul-28	NR/CCC	53.6	99 3/8	7.24%	270bp			$382	3.2%	5.0x	4.9x	0.4x
4.500%	Sr Nts	15-Jan-29	Caa1/B	299.6	95 1/3	6.68%	207bp			$2,935	24.8%	4.5x	3.9x	2.9x
5.375%	Sr Nts	15-Jun-29	Caa1/B	231.5	95 1/6	7.34%	271bp			$2,935	24.8%	4.5x	3.9x	2.9x
7.750%	Sr Nts	15-Feb-31	NR/CCC	115.9	92 3/5	9.85%	512bp			$382	3.2%	5.0x	4.9x	0.4x
7.600%	Sr Nts	15-Sep-39	Caa1/B	348.8	91 3/7	8.71%	369bp			$2,935	24.8%	4.5x	3.9x	2.9x

Source: J.P. Morgan and company reports.

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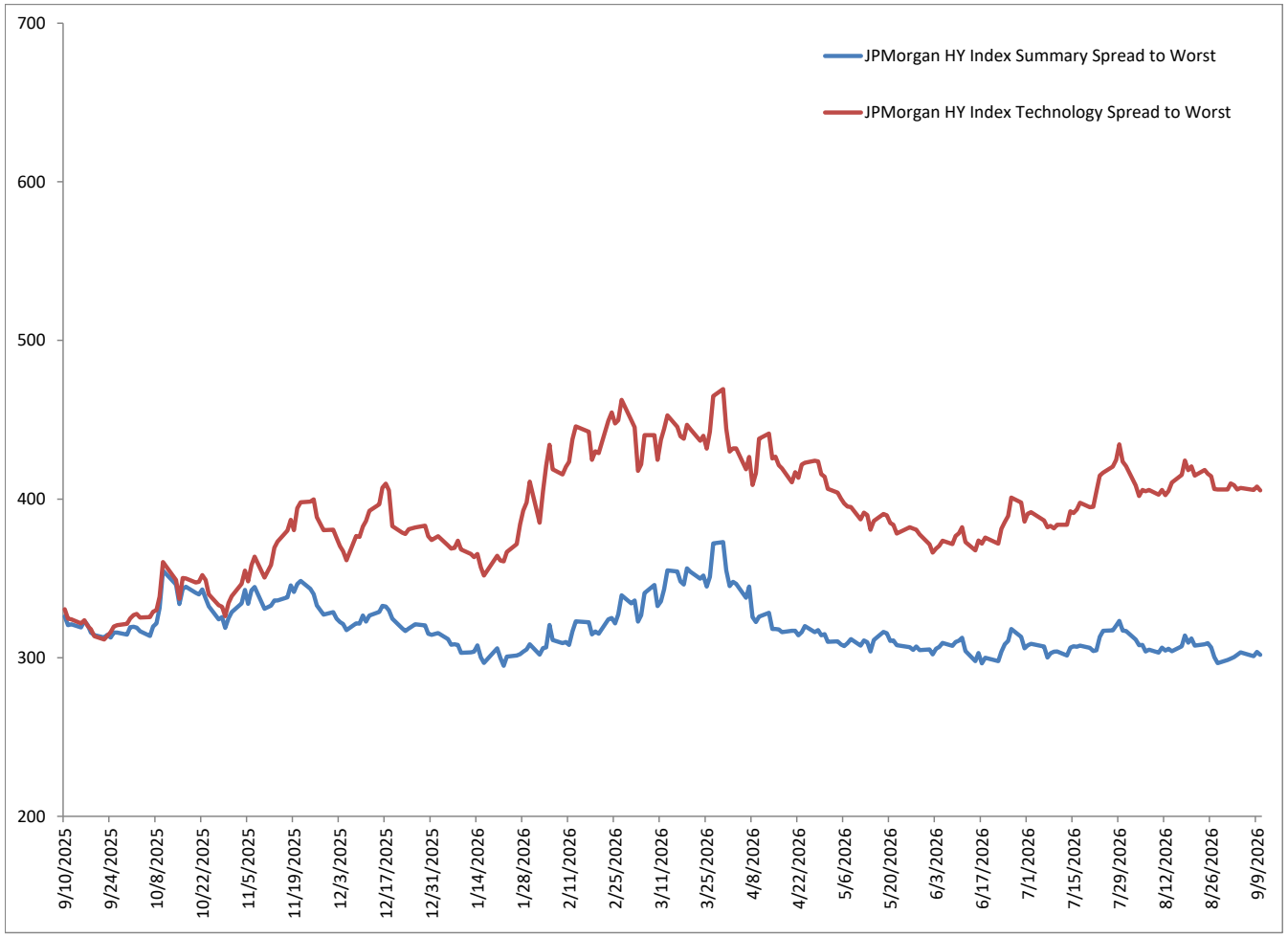
Table 16: Wireline Telecommunications (cont.)

Coupon	Description	Maturity	Moody's / S&P	Amount Outst.	Recent Quotes Bid	Recent Quotes YTW	Recent Quotes Spread	Next Call Date	Next Call Price	LTM EBITDA	EBITDA Margin	Debt / EBITDA	Net Debt / EBITDA	EBITDA / Interest
Uniti Group														
4.750%	Sr Sec Nts (1st Lien)	15-Apr-28	B2/B	90.9	99 1/4	5.24%	78bp			$1,537	43.5%	4.5x	4.5x	2.1x
8.250%	Sr Sec Nts (1st Lien)	1-Oct-31	B2/NR	2,200.0	104	6.80%	216bp	1-Oct-27	104.13	$1,537	43.5%	4.5x	4.5x	2.1x
6.500%	Sr Nts	15-Feb-29	Caa2/CCC	1,110.0	98 5/9	7.16%	255bp			$1,537	43.5%	6.9x	6.9x	2.1x
6.000%	Sr Nts	15-Jan-30	Caa2/CCC	700.0	95 2/3	7.49%	283bp	15-Jan-27	100.00	$1,537	43.5%	6.9x	6.9x	2.1x
Zayo Group														
S+350	Term Loan B	11-Mar-30	B3/B-	3,824.3	100 1/9	7.35%	349bp							

Source: J.P. Morgan and company reports.

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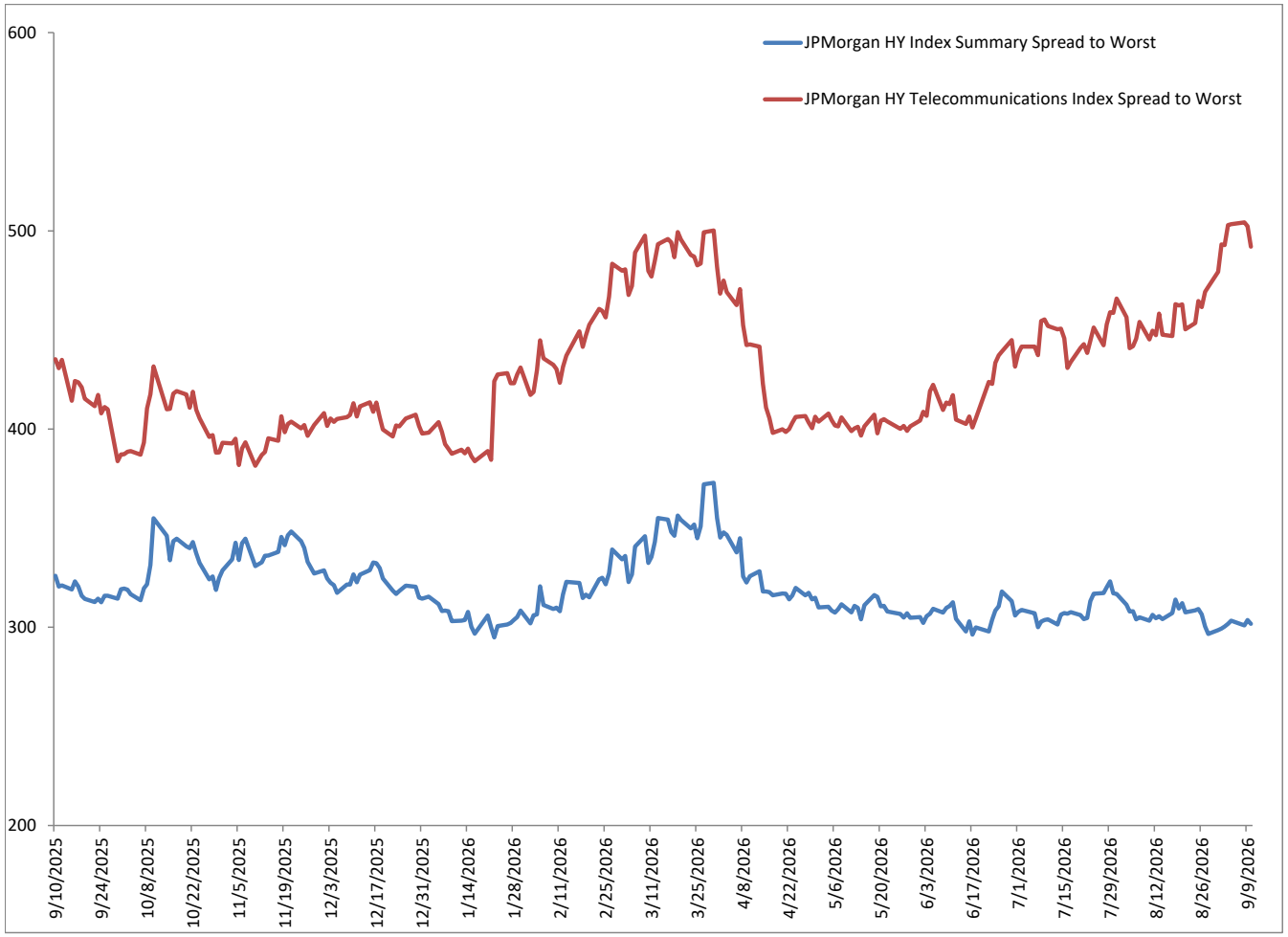
Figure 1: HY Market versus HY Technology – Spread to Worst



Source: J.P. Morgan.

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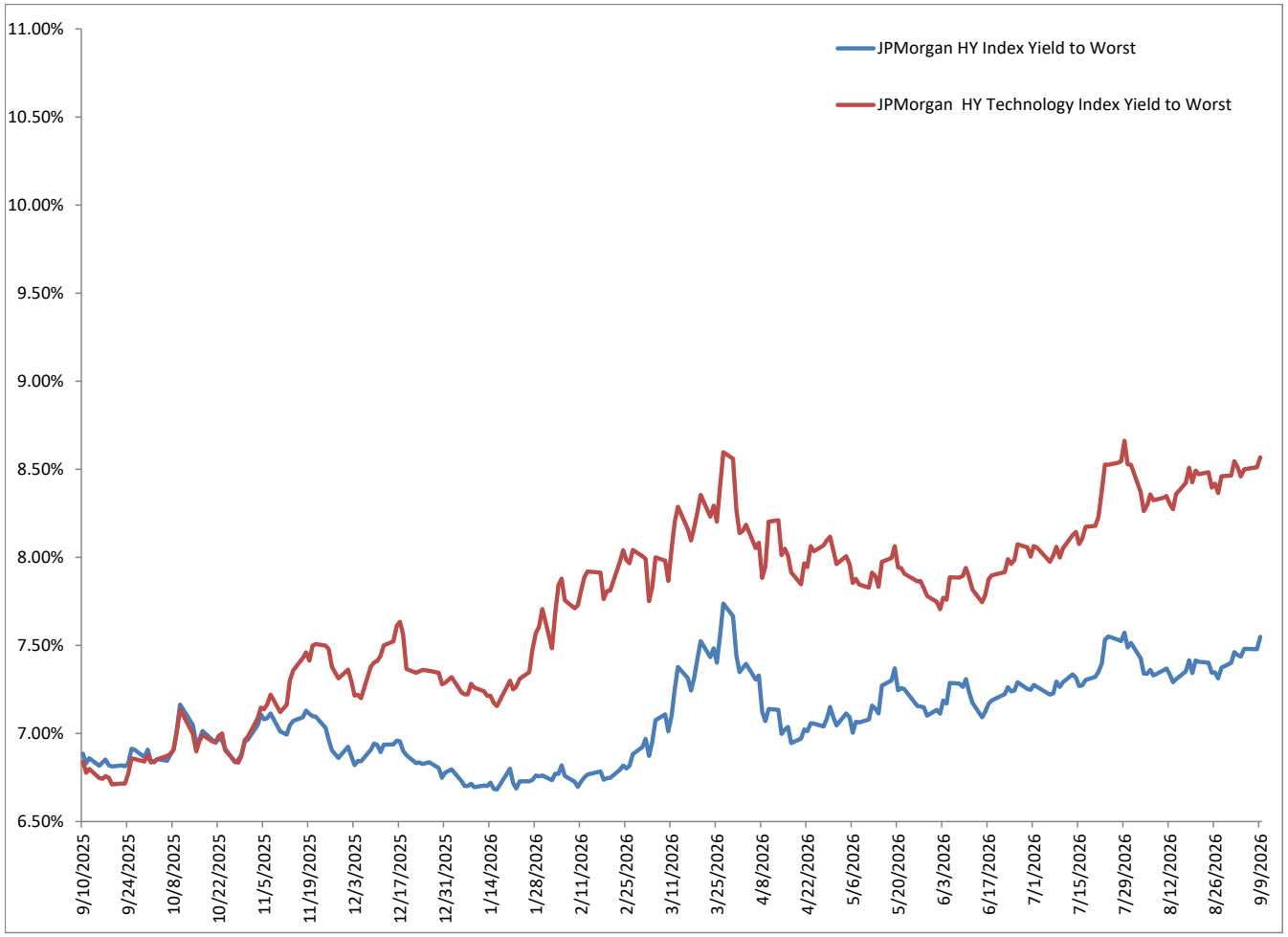
Figure 2: HY Market versus HY Telecommunications – Spread to Worst



Source: J.P. Morgan.

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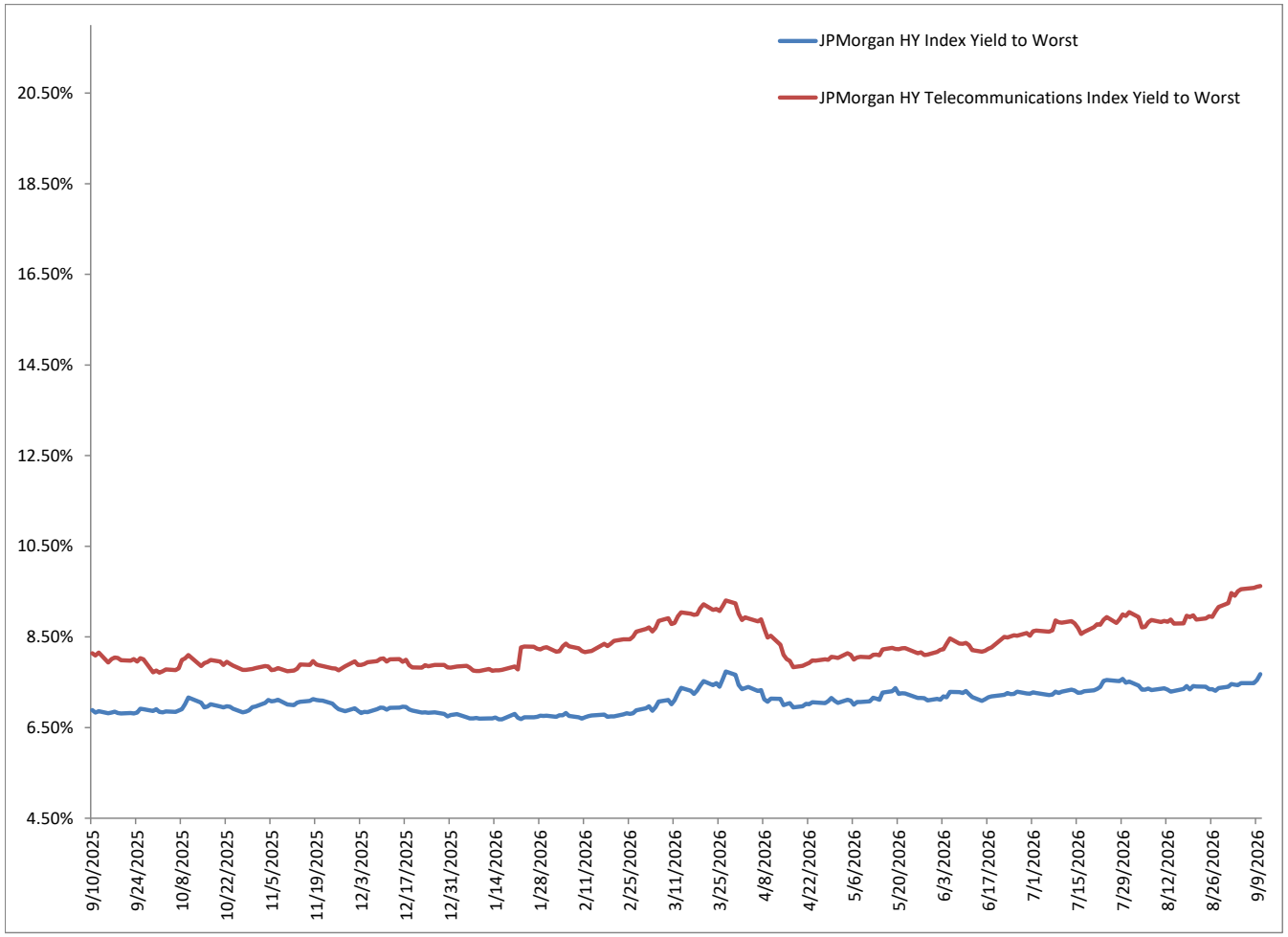
Figure 3: HY Market versus HY Technology – Yield to Worst



Source: J.P. Morgan.

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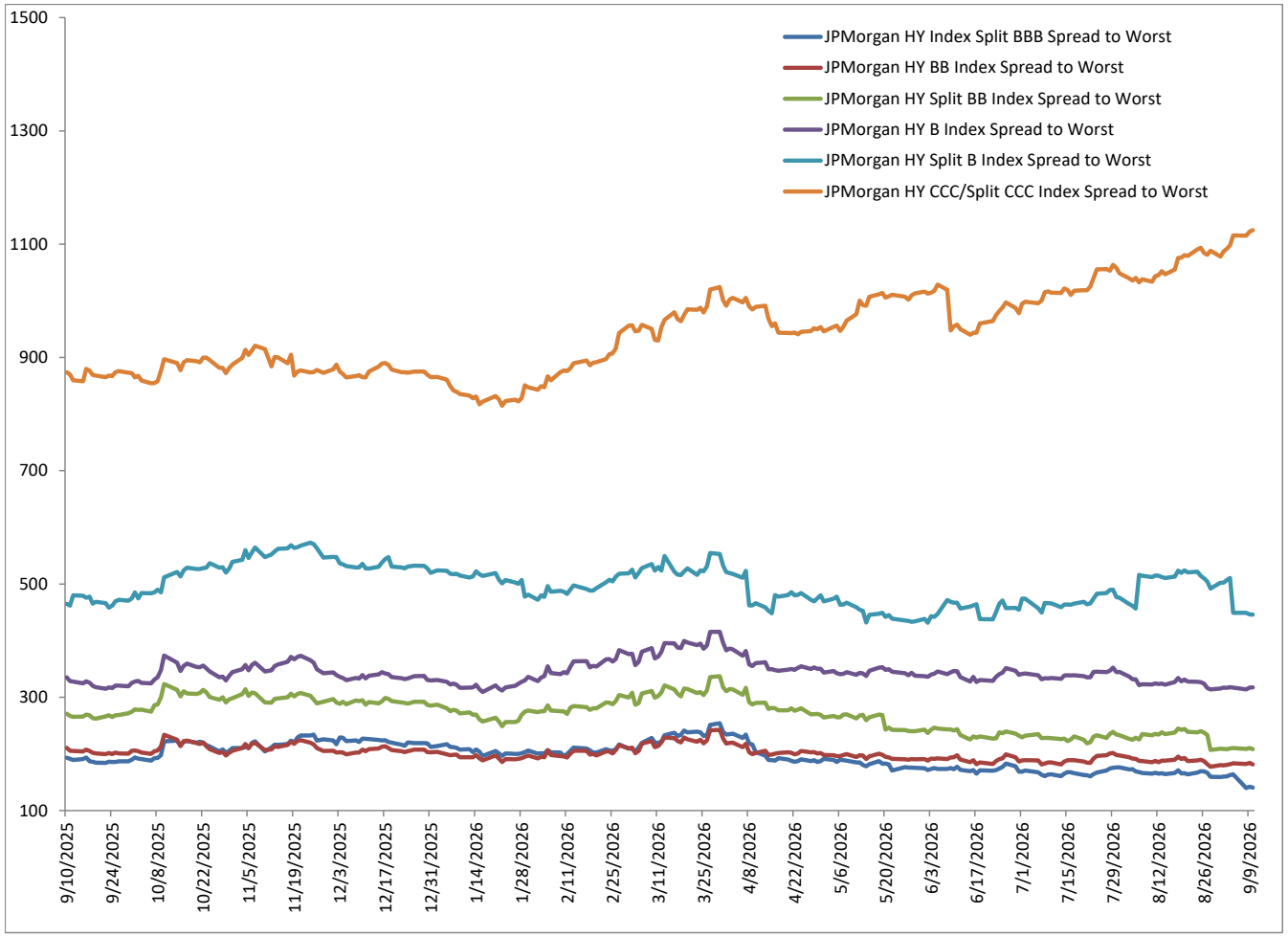
Figure 4: HY Market versus HY Telecommunications – Yield to Worst



Source: J.P. Morgan.

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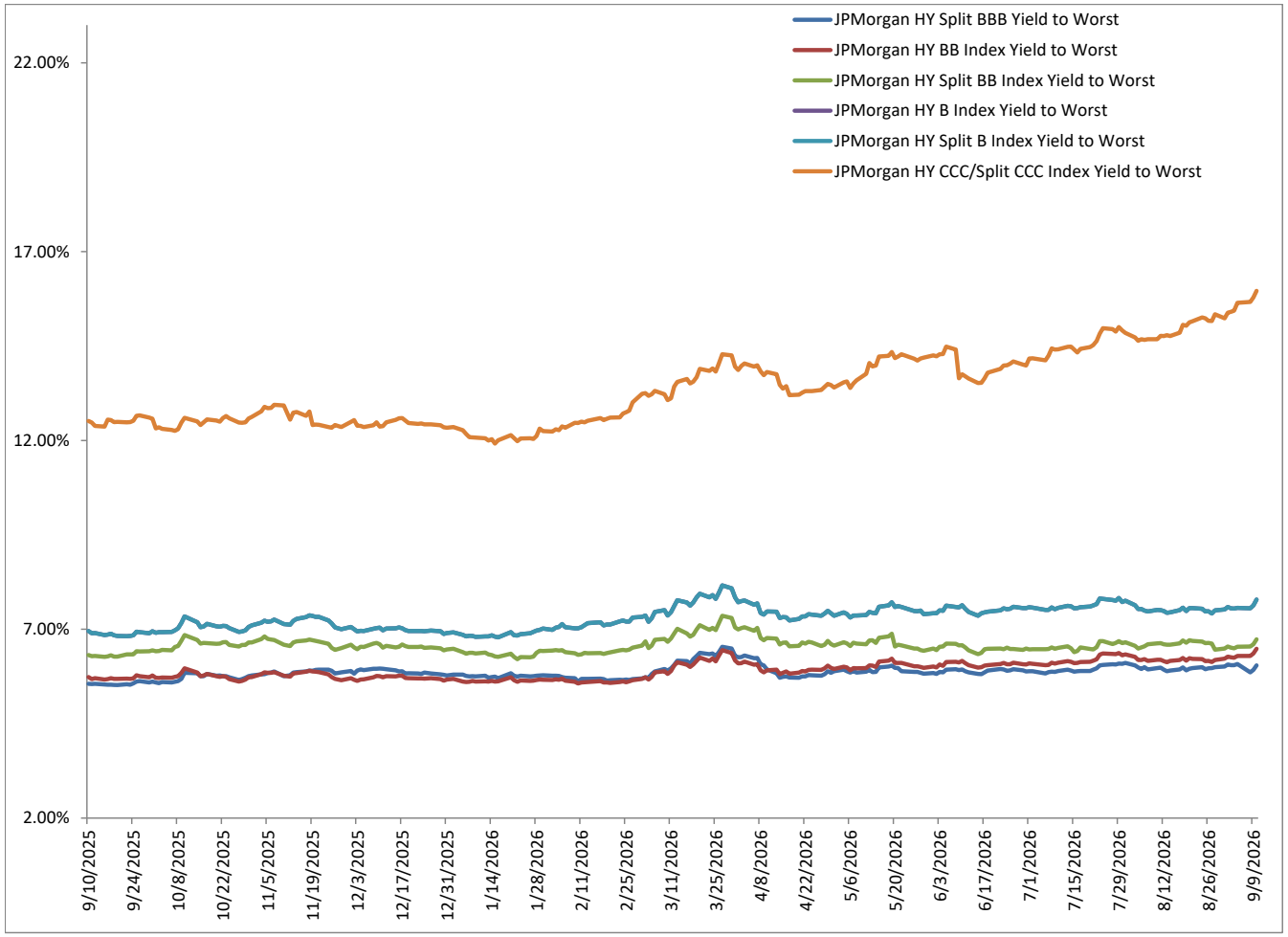
Figure 5: HY Market – Spread to Worst by Rating



Source: J.P. Morgan.

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Figure 6: HY Market – Yield to Worst by Rating



Source: J.P. Morgan.