SEAGATE

MFIF
Minutemen Fixed Income Fund

SEAGATE TECHNOLOGIES (NYSE: STX)

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We recommend an overweight position on Seagate Technology's (STX) 4.875% 2027 senior unsecured notes. Based out of Cupertino, STX is the largest producer of Hard Disk Drives (HDDs) both by revenue and total number of exabytes (EB) shipped, this equates to the company controlling 45% of the mass-capacity storage market by EB shipped. We believe the 2027 notes will tighten for a multitude of technical and fundamental reasons. Concentrated research and development efforts into the reacceleration of aerial density growth rates by utilizing Heat-Assisted Magnetic Recording (HAMR) and mutli-actuator technology will allow for the production ramp up of 18 and 20 terabyte (TB) HAMR HDDs a full year ahead of its competitors, creating a newly formed moat in platform benchmark capacity going forward. Additionally, we believe the geopolitical situation affecting technology manufacturers who derive a bulk of their revenue from China has unjustifiably weighed down STX on a relative basis. Lastly, we believe the sustained price erosion of NAND chips used in Flash Memory and Solid State Drives (SSDs) due to oversupply will decrease average selling prices (ASPs) of Flash Memory and SSD storage offerings leading to margin compression across industry peers who produce HDDs. In our opinion, extremely favorable credit metrics compared with its direct HDD competitor, along with a well-positioned portfolio of Enterprise and Edge Non-Compute HDD offerings during an expected cyclical upswing in mass-capacity storage EB demand will lead to STX's notes due 2027 to trade 15-30 bps tighter.

Figure 1: Capitalization Table

Seagate Technology						
LTM EBITDA	**1,830**					
Outstanding Debt and Leverage Metrics						
Type	**Rate**	**Maturity**	**Debt Outstanding**	**Leverage**	**Price**	**Yield**
Senior Unsecured Term Loan	LIBOR + 162.5	9/16/25	500		97.50	3.89%
Total Senior Loans			500	**0.27x**		
Senior Unsecured Bond	4.250%	3/1/22	500		103.75	2.53%
Senior Unsecured Bond	4.750%	6/1/23	741		105.63	3.08%
Senior Unsecured Bond	4.875%	3/1/24	500		106.70	3.15%
Senior Unsecured Bond	4.750%	1/1/25	750		105.45	3.58%
Senior Unsecured Bond	4.875%	6/1/27	690		105.72	3.98%
Senior Unsecured Bond	5.750%	12/1/34	490		103.62	5.39%
Total Senior Debt			3,671	**2.01x**		
Total Debt			**4,171**	**2.28x**		
Market Capitalization			15,137			
Less: Cash			1,786			
Enterprise Value			17,523	**9.58x**		

Source: Company Filings, Bloomberg

Security Data

Bond Maturity: 6/1/2027
Rating: Baa3/BB+
Rank: Sr. Unsecured
Price: $105.72
YTW: 3.98%
Call Date: 3/1/2027
Coupon: 4.875%
Spread: 236 bps

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Company Description
Seagate, founded in 1979, generates 93% of their revenue from the sale of HDDs, the remaining 7% comes from a combination of SSDs and services. Business segments include Enterprise, Edge Non-Compute, Edge Compute, and Enterprise Data Solutions & SSDs. As shown in Figure 2, STX has been rapidly growing total EB shipments and are expected to surpass 100EB per quarter in 2Q20.

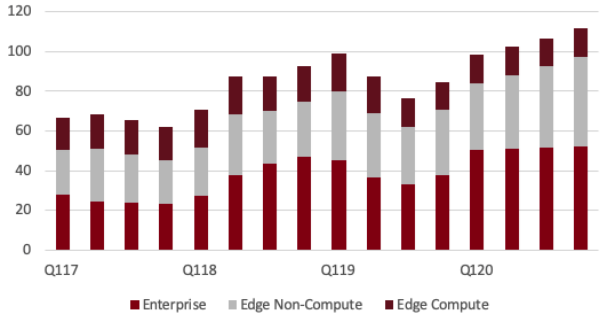
Shifting Focus to Growing HDD End-Markets
STX predicts total HDD storage demand will increase at 17% CAGR from FY20 to FY26, and mass-capacity HDD will account for 90% of total HDDs shipped in FY26 versus 60% today, as STX's TAM expands the company is pivoting towards its growing end markets. Hyperscale cloud customers are demanding high-capacity energy efficient storage, leading to growth in STX's Enterprise Nearline HDDs which account for 48% of STX's EB demand. Shipments increased q/q from 38EB to 51EB in Q120, as shown in Figure 3 Nearline HDDs are projected to grow at 35% CAGR from FY20 to FY22. Additionally, Edge Non-Compute Consumer Electronics, grew at 29% y/y in FY19, which includes surveillance storage and network-attached storage (NAS) will contribute to EB shipments, as illustrated in Figure 3, as consumers increase demand of localized mass-capacity HDD offerings.

New Aerial Density Acceleration Moat
Concentrated research and development efforts in HAMR and MACH.2 dual actuator technologies have proven beneficial and will allow STX to ramp production of 20TB HDDs built on the HAMR platform by the end of FY20. STX's leading competitor in the HDD market is Western Digital Corporation (WDC), WDC generated $8.7B of HDD revenue in the LTM (vs. $9.2B for STX). In Q220 STX will ship over one million 16TB HDDs while ramping production of 18TB HDD products. In comparison, WDC just started ramping 14TB HDDs in Q120. STX's 16TB HDDs will become the capacity benchmark for the industry by the end of FY20 as STX will remain the only company mass-producing them. This leaves WDC to play catchup before their customers switch to STX's larger offerings. At the current rate of production, we believe WDC will not be able to recover ground lost in regards to capacity during this current cyclical upswing in HDD exabyte demand. This will help STX develop a moat in regards to ramping mass-capacity HDD storage. Additionally, as STX shifts from Perpendicular Magnetic Recording (PMR) to HAMR, HDD costs will decline 45% when doubling capacity vs. 30% from the last transition from 8 to 16TB using PMR. Aerial density is projected to grow at 20% CAGR utilizing HAMR versus 10% CAGR using PMR; STX plans on ramping 30TB drives by FY23. HAMR will help STX keep HDD cost down at a similar speed of cost reduction in Flash Memory, which WDC generates $6.9B of its revenues from. As a response, WDC has released MAMR (Microwave-Assisted Magnetic Recording) technology for HDDs but is still behind STX in terabyte production ramping.

Risks

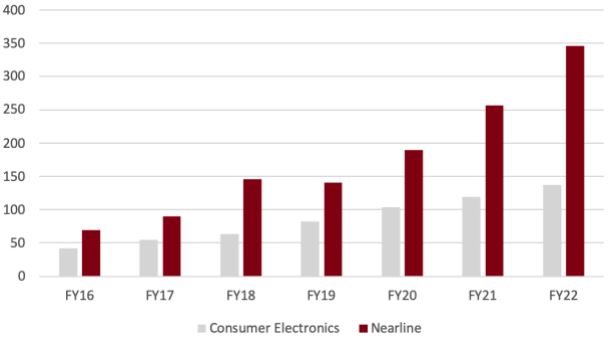
- Expected cyclical growth in mass-capacity EB demand by hyperscale cloud customers are reduced or delayed due to deteriorating macroeconomic conditions causing lower total shipments.
- Competitors quickly develop the technology needed to ramp production of 18TB and 20TB HDDs at a faster than expected pace, making up for the head-start STX has over other HDD players in the space.
- NAND spot prices begin to recover from an industry oversupply at a faster pace than expected to, leading to higher ASPs for SSD and Flash Memory producers which in turn will mitigate ongoing margin compression.

Figure 2: HDD EB Segment Shipments



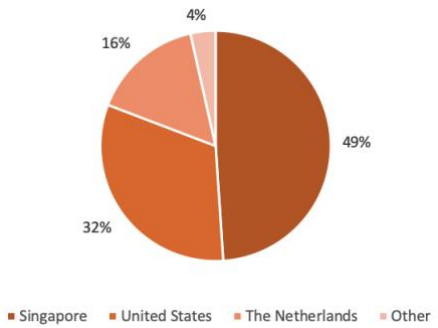
Source: Company Filings

Figure 3: HDD EB Product Shipments



Source: Company Presentations

Figure 4: Revenue by Geography



Source: Company Filings

Figure 5: Comparable Company Metrics

Comps	STX	WDC	MU
Market Cap	15,137	15,934	53,559
Net Debt	2,354	6,964	-1,446
EV	17,491	22,898	52,113
Revenue	9,977	15,581	23,406
EBITDA	1,830	1,050	12,600
FCF	1,279	351	3,409
Debt/EBITDA	2.3x	9.7x	0.5x
Debt/FCF	3.2x	29.1x	1.7x
Credit Rating	Baa3/BB+	Baa3/BB+	Baa3/BB+
Bond Maturity	2027	2026	2027
YTW	3.98%	4.10%	3.53%
Z-Spread	236	239	194

Source: Company Filings, Bloomberg

Management

Dr. David Mosely was appointed to the CEO position and Board of Directors in FY16. Mosely has been at STX for the last 20 years in various roles including COO.

Gianluca Romano, CFO and EVP, joined STX in FY18, before that he was VP of Finance and Accounting at MU. Romano has over 20 years of experience in the industry.

Ravi Naik joined STX in FY16 as CIO and SVP of Corporate Strategy, prior to joining Naik was CIO of SanDisk until its sale to WDC.

Note: WDC's CEO and CTO both stepped down in Q120, after a poor FY19 performance. WDC's CFO stepped down a year ago in Q119.

NAND Oversupply

Both Flash Memory and SSDs use NAND chips to store data, since Q418 there has been a massive industry oversupply which has caused the spot prices of NAND chips to decrease by ~70%. This has led to industry competitors who produce SSDs along with HDDs to experience margin erosion. Gross margins at WDC have decreased from 33% to 19% y/y while operating margins have compressed from 14% to -3%, recovering slightly from -10% in Q419. As NAND spot prices are expected to continue to decline, STX is shielded from industry wide margin compression due to their relatively low exposure to Flash Memory and SSDs.

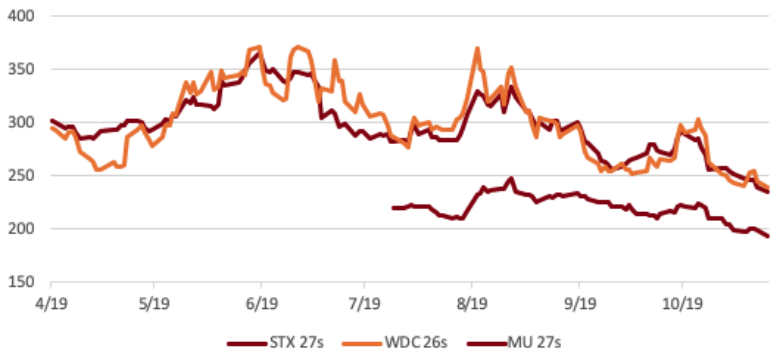
Geopolitical Turmoil

Ongoing trade disputes between the United States and china have led to growing pessimism surrounding chip and storage makers who derive a large percentage of their revenues from China. STX does not explicitly break out their revenues from China but their revenue category "Other" makes up less than 4% of their total revenue. Compared to WDC who receives 23% of their revenue from China, and Mircon Technology (MU) does 15% from China. Figure 4 shows STX's revenue distribution for the FY19. STX management has stated that they do not expect any material impact from tariffs. Additionally, WDC generates over 10% of their revenue from Apple, who is highly exposed to heightened trade tensions.

Relative Value

During Q120 STX proposed a cash tender offer up to $250M, $200M, and $75M for their Senior Unsecured Notes due in 2022, 2023, and 2025 respectively. This tender offered included a buyout provision at $1,030 per bond. During the window of this tender offer, the company reached their tender offer goals on all notes. This refinancing, coupled with STX's far superior credit metrics over their largest competitor, as shown in Figure 5, makes for a favorable case for the 2027 notes to tighten. We believe the bonds could tighten roughly ~15-30bps with respect to WDC's 26s, back to levels it was briefly trading at during Q219.

Figure 6: Z-Spread Data



Source: Bloomberg

Figure 7: Summary Model

Seagate Technology (STX US)										
USD, Millions	**FY17A**	**FY18A**	**FY19A**	**Q120A**	**Q220E**	**Q320E**	**Q420E**	**FY20E**	**FY21E**	**FY22E**
Revenues										
Enterprise	4,070	4,651	4,189	1,160	1,159	1,160	1,161	4,640	5,288	6,028
Edge Non-Compute	3,154	3,132	3,315	799	870	947	1,031	3,646	3,760	3,879
Edge Compute	2,660	2,567	2,058	438	430	421	413	1,702	1,507	1,334
SSD	887	835	828	180	193	207	221	801	777	754
Total Revenue	**10,771**	**11,184**	**10,390**	**2,578**	**2,652**	**2,734**	**2,826**	**10,789**	**11,332**	**11,995**
Cost of Revenue	7,597	7,820	7,458	1,907	1,883	1,941	2,006	7,737	8,046	8,396
Gross Profit	3,174	3,364	2,932	671	769	793	819	3,052	3,286	3,598
Product Development	1,232	1,026	991	255	239	246	254	994	1,020	1,080
Marketing & Administrative	606	562	453	122	106	109	113	450	453	480
Amortization of Intangibles	104	53	23	4	6	6	6	23	23	23
Restructuring and Other, net	178	89	(22)	17	0	0	0	17	17	17
Total Operating Expenses	2,120	1,730	1,445	398	351	362	374	1,484	1,513	1,599
Operating Income	**1,054**	**1,634**	**1,487**	**273**	**418**	**431**	**446**	**1,568**	**1,773**	**1,999**
Interest Income	12	38	84	11	24	24	24	84	84	84
Interest Expense	(222)	(236)	(224)	(55)	(56)	(56)	(56)	(224)	(224)	(224)
Net Interest Expense	(210)	(198)	(140)	(44)	(32)	(32)	(32)	(140)	(140)	(140)
Other, net	(29)	(18)	25	(31)	0	0	0	(31)	(31)	(31)
Other Expenses, net	(239)	(216)	(115)	(75)	(32)	(32)	(32)	(171)	(171)	(171)
Pre-Tax Income	815	1,418	1,372	198	386	399	414	1,397	1,602	1,828
Taxes	43	236	(640)	(2)	19	20	21	58	80	91
Net Income	**772**	**1,182**	**2,012**	**200**	**367**	**379**	**393**	**1,339**	**1,522**	**1,737**
EBITDA Reconciliation										
Net Income	772	1,182	2,012	200	367	379	393	1,339	1,522	1,737
(+) Interest Expense, net	210	198	140	44	32	32	32	140	140	140
(+) Taxes	43	236	(640)	(2)	19	20	21	58	80	91
(+) Depreciation & Amortization	749	598	541	92	159	164	170	493	521	552
(+) Restructuring	178	89	(22)	17	0	0	0	17	17	17
(+) Stock-Based Compensation	137	112	99	26	26	26	26	78	78	78
EBITDA	**2,089**	**2,415**	**2,130**	**377**	**603**	**621**	**641**	**2,125**	**2,358**	**2,615**
Unlevered Free Cash Flow										
CFFO	1,916	2,113	1,761	456	661	682	705	2,247	2,473	2,738
(-) Capital Expenditure	(434)	(366)	(602)	(147)	(151)	(156)	(161)	(468)	(487)	(516)
(+) Interest Expense	222	236	224	55	56	56	56	224	224	224
FCF	**1,704**	**1,983**	**1,383**	**364**	**566**	**582**	**600**	**2,003**	**2,209**	**2,446**
Credit Metrics										
Debt/EBITDA	2.4x	2.0x	2.0x	2.3x	2.3x	2.0x	1.8x	1.9x	1.8x	1.6x
Debt/FCF	2.9x	2.4x	3.1x	3.2x	2.5x	2.2x	2.0x	2.1x	1.9x	1.7x
EBITDA/Interest	9.9x	12.2x	15.2x	12.2x	12.4x	13.9x	16.0x	15.2x	16.8x	18.7x
Debt	5,021	4,819	4,253	4,140	4,140	4,140	4,140	4,140	4,140	4,140
HDD Exabyte Shipments										
Mission Critical	9.5	9.6	12.2	3.2	3.6	4.1	4.6	15.5	19.7	25.0
Nearline	89.9	146.0	140.3	47.4	47.4	47.5	47.5	189.9	256.3	346.1
Total Enterprise	99.4	155.6	152.5	50.6	51.1	51.6	52.2	205.4	276.1	371.1
Consumer Electronics	54.5	63.4	82.1	22.0	24.4	27.1	30.1	103.6	119.2	137.0
Conumer	41.3	46.0	47.4	11.1	12.3	13.7	15.2	52.3	57.5	63.3
Total Edge Non-Compute	95.8	109.4	129.5	33.1	36.7	40.8	45.3	155.9	176.7	200.3
Desktop + Notebook	67.2	73.3	65.4	14.7	14.6	14.4	14.3	57.9	55.0	52.3
Total Edge Compute	67.2	73.3	65.4	14.7	14.6	14.4	14.3	57.9	55.0	52.3
Total Exabytes	**262**	**338**	**347**	**98**	**102**	**107**	**112**	**419**	**508**	**624**

Source: Company Filings, Company Presentations