



Reports on:

Charter Communications, Inc.

Franklin Resources, Inc.

SunOpta Inc.

Charter Communications, Inc.

NASDAQ: CHTR



GICS Sector: Consumer Discretionary
April 2, 2018

Dow Jones Indus:	23,664.19
S&P 500:	2,581.88
Russel 2000:	1,492.53
Index Component:	S&P 500, NASDAQ100

AAF History

Report Type	New
Initially Probed	NA
Last Probed	NA
Trigger	No
Situation	Business Value

Selected Financial Summary (\$MM)

	2014	2015	2016	2017
Revenues:	\$9,108	\$9,754	\$29,003	\$41,581
Operating Income	\$971	\$1,114	\$2,456	\$4,106
Margin (%)	10.7%	11.4%	8.5%	9.9%
EBITDA	\$3,190	\$3,406	\$10,592	\$15,301
Margin (%)	35.0%	34.9%	36.5%	36.8%
Capex	2221	1840	5267	8681
Capex (% of Revenues)	24.4%	18.9%	18.2%	20.9%
Free Cash Flow	\$171	\$547	\$3,319	\$4,093
FCF Yield (%)	0.2%	0.7%	4.0%	4.9%
Net Debt/EBITDA	6.5x	10.5x	5.7x	4.5x
Share Repurchases (MM)	\$19	\$38	\$1,562	\$11,715
EPS	-\$1.88	-\$2.68	\$15.94	\$34.09

Fiscal Year End: December 31

Capitalization and Trading Multiples (\$MM)

Share Price	\$303.87		2015	2016	2017
Diluted Shares (MM)	274.0	EV/EBITDA	44.9x	14.4x	10.0x
Market Cap	\$83,258	P/E	NA	19.1x	8.9x
Debt	\$70,231	P/FCF	152.2x	25.1x	20.3x
Cash	\$621	EV/Sales	15.7x	5.3x	3.7x
Enterprise Value	\$152,868	EV/EBIT	137.2x	62.2x	37.2x

Trading Statistics

Dividend Rate	NA	Avg. Daily Volume (3mo) (MM)	1.6
Dividend Yield	NA	Short % of Float	4%
Payout Ratio	NA		

	High	Low
52-Week	\$402.50	\$303.87
5-Year	\$402.50	\$111.41

Valuation

Intrinsic Value	\$508.46	Time Horizon	YE 2021
Implied Upside	67%	IRR	15%
Hidden Assets	No		
Description	NA		

Share Ownership

	Economic	Voting
Liberty Broadband	20%	25%

Major Shareholders (6/30/17)

Advance/Newhouse	13%
Vanguard	5%
TCI	4%

Clients of Boyar Asset Management, Inc. do not own shares of Charter Communications, Inc. common stock. Clients own 48 shares of Liberty Broadband and 556 shares of GCI Liberty common stock.

Analysts employed by Boyar's Intrinsic Value Research LLC own Charter, Liberty Broadband, and GCI Liberty common stock.

Introduction

Charter Communications ("Charter," "CHTR," or the "Company") is the second-largest cable operator in the US. Charter shares have been a long-term outperformer, rising 420% since the December 2011 announcement that Tom Rutledge would be joining the Company as CEO and 82% since AAF last provided a full-length profile of the Company (via Liberty Broadband) in January 2015. This remarkable performance has been driven in large part by a combination of a successful operational turnaround centered on rebuilding formerly neglected assets and the pursuit of transformative M&A, including through a May 2016 merger with Time Warner Cable. But after edging toward all-time highs following a generally positive 4Q17 earnings release on February 2, Charter shares have declined 22% in recent weeks on little to no Company-specific news. The recent decline likely reflects some combination of diminishing hopes for a sale of the Company in the near term, ongoing turmoil in the pay TV industry over cord cutting, concerns about the 5G wireless threat, and—more recently and perhaps most influentially—marketwide selling pressure on large caps, the NASDAQ 100 Index

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(of which CHTR is a component), and levered stocks (CHTR is 4.5x levered).

It is ironic that the recent declines come despite the onset of a much more favorable regulatory environment and a huge gift from the December 2017 Tax Cut and Jobs Act. Charter is also in the midst of multiple transitions that should unlock faster growth in the coming years. The Company has ramped up investment in the assets it acquired in 2016 to boost network speeds, improve customer service, transition to all-digital cable, and revamp the pricing and packaging go-to-market strategy. This should result in lower capital intensity and improved video subscriber trends in 2018, as well as reduced churn/addition of higher-lifetime-value customers over the long term. The video business is facing incremental pressure from discounted vMVPD offerings in the near term, but the promotional environment could fade, and Charter is also inching into the streaming TV business. More important, we estimate that video will account for <20% of Charter's consolidated revenues, net of programming costs, by 2019. In the meantime, Charter holds a near-monopoly on high-speed Internet on much of its footprint, with ~1 million annual residential net additions (off a current base of 22.5 million subscribers) and ~3.5%-4% annual pricing power likely sustainable for many years to come. Charter's commercial business also continues to grow at or near double-digit rates.

With the recent declines, Charter shares have de-rated from a peak of ~11x EBITDA to ~9x forward (2018E) EBITDA. We project that Charter can grow Adj. EBITDA from \$15.3 billion in 2017 to \$20 billion in 2022. Conservatively assuming no expansion in Charter's forward EV/EBITDA multiple, we estimate that Charter's intrinsic value could exceed \$500/share by year-end 2021 (67% upside). In the interim, Charter already retired 12% of its shares in 2017 and could have the capacity for ~\$28 billion (a third of the current market cap) in additional repurchases over the next 4 years while actually slightly reducing its leverage ratio. Finally, we suspect that Charter is not finished with M&A, and if John Malone's past cable investments are a guide, an eventual sale to a telecom operator at a highly attractive multiple is the most likely endgame.

Note: Please see the appendix at the end of this report for a brief overview of Liberty Broadband and GCI Liberty (formerly Liberty Ventures), two standalone Liberty/John Malone investment vehicles that are principally proxy investments in Charter. The appendix begins on P. 18.

Background

Asset Analysis Focus first profiled Charter indirectly through Liberty Broadband ("LBRD") in January 2015. In November 2014 Liberty Broadband was spun out from another John Malone-controlled vehicle, Liberty Media (which AAF had also profiled over the years), to create a pure-play vehicle for what was then a 26% stake in Charter valued at \$4.4 billion (acquired in May 2013 for \$2.6 billion, or ~\$105 per share, adjusted for the 0.9042-for-1 split in 2016). Charter emerged from bankruptcy on November 30, 2009, and by 2013 its private equity backers had essentially exited after secondary offerings and the transaction with Liberty Media. After the arrival of highly regarded Cablevision COO Tom Rutledge in 2012, Charter initiated a new strategy centered around reinvesting in its long-undermanaged assets and building scale through M&A, beginning with the \$1.6 billion acquisition of Bresnan/Optimum West in July 2013, which added 375,000 customers in four states. At the time of our initial report on Liberty Broadband, Charter had recently lost out to Comcast on the bidding war for Time Warner Cable (TWC) but had salvaged a set of attractive asset sale, swap, and divestiture agreements with Comcast to facilitate approval of the merger and densify the companies' respective footprints.

Much has transpired in the ensuing three-plus years. In somewhat of a surprise, the FCC/DOJ moved to block the Comcast-TWC merger, which created the opportunity for Charter to take a second run at TWC. In April 2015, Charter reached an agreement to acquire TWC for \$79 billion in cash and stock, or 9.1x 2015E EBITDA (8.3x after projected tax and operating synergies). This represented a premium of 48% to TWC's last offer of \$132.50/share in January 2014, reflecting improved sentiment toward the industry as well as the emergence of Altice as a competing bidder, but in time it has proved to be a very compelling price. The TWC announcement followed shortly after Charter agreed to acquire Florida cable company Bright House Networks from Advance/Newhouse for \$10.4 billion, or an attractive 7.6x 2014 EBITDA, pre-synergies. The two deals were completed in May 2016, nearly quadrupling Charter's footprint from 12.9 million cable passings at "Legacy Charter" to 48 million passings at "New Charter."

To help finance the deals, Liberty Broadband purchased 25.7 million New Charter shares for \$5 billion (~\$194/share, split-adjusted). Charter shares are up 82% and Liberty Broadband shares up 85% since we profiled LBRD in January 2015, compared to just a 29% increase in the S&P 500. However, both stocks are

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down 20% or more from recent highs, in part due to dissipated expectations for a sale of the Company in the near term.

Charter Business Description

Charter Communications is the second-largest cable multiple-system operator (MSO) in the US, with a network that passes 50 million homes and businesses. Charter serves 25.6 million unique residential customers, including 16.5 million video, 22.5 million Internet, and 10.4 million voice primary service units (PSUs). Charter averages 1.93 PSUs and \$110 in monthly revenue per residential customer (ARPU). Charter also has 1.6 million small and medium business customers (2.7 million PSUs) and 114,000 commercial service subscribers.

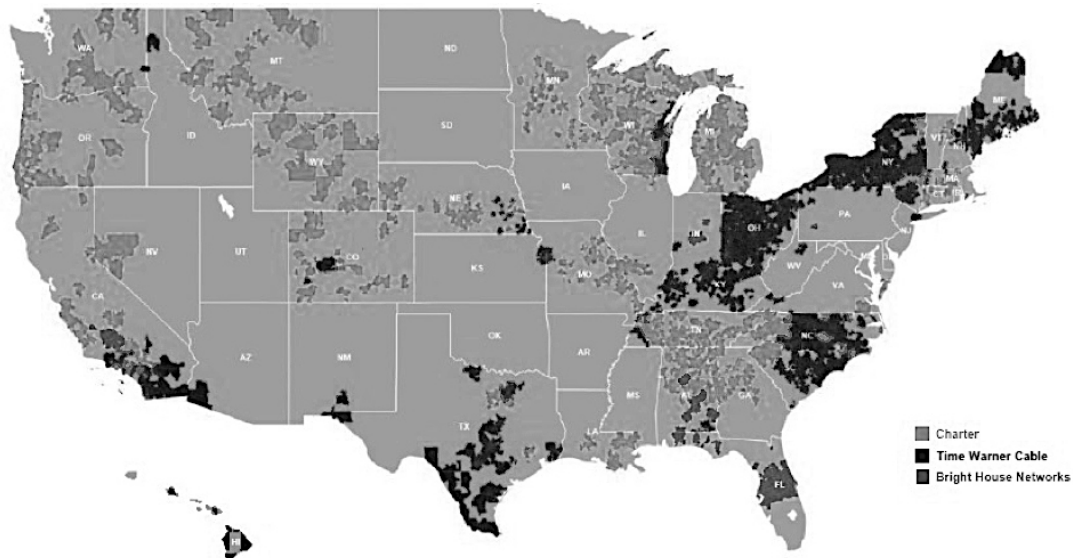
Charter Footprint and Customer Relationships (thousands, Dec. 31, 2017)

Key Market Area	Total Customer Relationships
Carolinas	2,668
Central States	2,870
Florida	2,389
Great Lakes	2,208
Northeast	2,970
Northwest	1,472
NYC	1,334
South	2,085
Southern Ohio	2,093
Texas	2,736
West	4,374

Footprint:	
Video passings	50,066
Internet passings	49,820
Voice passings	49,088
Customers:	
Residential customer relationships	25,639
Video customers	16,544
Internet customers	22,545
<u>Voice customers</u>	<u>10,427</u>
Residential PSUs	49,516
SMB & Enterprise:	
SMB PSUs	1,560
Commercial PSUs	114

Historically, Legacy Charter’s network was not positioned in as dense or high-income DMAs as were those of some of its cable peers, like Comcast or Altice USA, which led Charter to report relatively lower penetration and ARPU rates but which also meant that Charter faced more limited competition. The 2016 acquisitions densified the Company’s cable network, which now includes a presence in 9 of the top 25 DMAs. Charter’s cable footprint is still very attractively situated from a competitive perspective; satellite companies (Dish and DirecTV, which was acquired by AT&T in 2015) have historically been the largest video competitors and telecom companies such as AT&T and CenturyLink the primary Internet service provider (ISP) competition. Charter has faced relatively limited fiber or cable overbuild across its footprint. Charter’s leading competitor is AT&T, which has ~28% wireline overlap with Charter and competes for video subscribers across its footprint in the form of DirecTV’s satellite and Internet streaming packages. AT&T still principally offers inferior copper/DSL-based Internet service, with Charter’s marketed entry-level Internet speeds reaching ~10x-15x AT&T’s. AT&T committed to build out 12.5 million fiber locations within 4 years in conjunction with the DirecTV acquisition and already has extended fiber to 6 million residential passings, with 13-14 million targeted by 2020. Only about 5 million of the fiber passings are expected to overlap with Charter’s network, and there has not been a clearly identifiable financial impact to date. Charter competes with Verizon FiOS fiber or former FiOS networks that were sold to Frontier in another ~12% of its footprint, compared to ~40% FiOS overlap at Altice USA. Charter has some limited overlap with Google Fiber (which has been put on pause) and cable overbuilders such as WideOpenWest (the industry’s largest alternative cable provider, but still quite small at 3.1 million homes passed and 777,000 customers).

New Charter Combined Footprint



Top Quality Management at Charter and Liberty Broadband

An important component of the investment thesis in Charter/Liberty Broadband is the best-in-class management teams at both entities. As noted, Charter CEO and chairman Tom Rutledge (age 63) is widely regarded as the top manager in the cable industry. Prior to joining Charter, he led Cablevision between 2004 and 2011, where he produced record cable penetration rates and helped popularize the triple play package. Mr. Rutledge was blessed with a uniquely attractive cable footprint (high density, high income) at Cablevision, but this does not diminish his accomplishments. At Charter, he has already had staggering success in boosting the Company's market penetration and scale.

Mr. Rutledge's incentives are also closely aligned with those of long-term shareholders. In April 2016, as part of a 5-year contract extension, Mr. Rutledge negotiated the receipt of 2.0 million options with 6-year hurdle strike prices ranging from \$262 per share to \$510 per share. He was also appointed chairman following the completion of the 2016 transactions. Mr. Rutledge is supported by longtime Cablevision colleagues John Bickham (Charter COO, former Cablevision president) and David Ellen (senior EVP at Charter and former Cablevision general counsel) as well as longtime Charter CFO Chris Winfrey.

Liberty Broadband owns ~20% of Charter and has proxy voting rights on former Bright House owner Advance/Newhouse shares that give Liberty ~25% voting control. Liberty Broadband also holds the right to nominate 3 directors to Charter's board. Liberty Broadband Chairman John Malone (6% economic and 47% voting interest in LBRD) serves on the board, and his historical cable industry record is unmatched. LBRD CEO Greg Maffei also serves on the board. He has prior history in the telecom/cable industry, and his incentives are also closely aligned with those of Charter shareholders. Mr. Maffei received 1.5 million LBRD options (Dec. 2018-Dec. 2019 expiration) struck at the money (then \$48) following the separation from Liberty Media and has elected to receive his annual Charter board retainer in equity.

Advance/Newhouse also retains a 13% stake in Charter and has the right to designate two directors.

Network Upgrade, TWC + Bright House Integration Update

After the arrival of Tom Rutledge as CEO, Legacy Charter spent several years rebuilding its network, customer reputation, and go-to-market strategy. Key initiatives included insourcing call centers and technicians, introducing the Spectrum brand, simplifying pricing and packaging, transitioning to an all-digital network, and boosting minimum guaranteed Internet speeds. These initiatives brought incremental ongoing opex and capex, as well as higher customer churn in the near term, but had significant positive impacts, as Legacy Charter's top-line growth rate reached 8% by 2014.

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Charter is in the midst of implementing similar best practices for the acquired TWC and Bright House businesses. It is introducing simplified packaging across its footprint, focused on offering three price tiers, straightforwardly labeled “good, better, best.” Charter is also transitioning the acquired customers off of low-margin basic cable offerings and onto two-way, all-digital set-top boxes (STBs). An all-digital video product enhances encryption, provides customers with higher picture and sound quality, and enables two-way interaction with enhanced on-screen guides and remote DVR/VOD services. It also frees up network capacity, which allows the cable provider to offer more HD channels, on-demand programming, and faster broadband speeds.

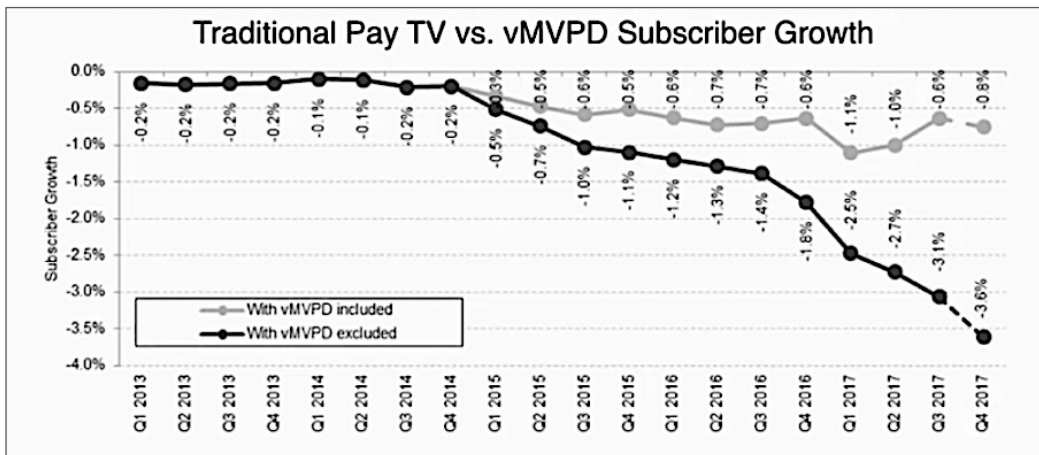
Legacy Charter began upgrading to all-digital in 2013 and had substantially completed the upgrade by 2015, but customers acquired in the 2016 deals were largely still on analog systems. As of year-end 2017, 74% of New Charter’s footprint was transitioned to all-digital, but roughly 30% of the TWC footprint and half of the Bright House footprint was still analog. The all-digital transition has short-term costs such as capital investment in new STBs and increased customer service costs, which can also cause a temporary uptick in subscriber churn. But the transition boosts long-term ARPUs and bolsters the cable operator’s competitive position. The new pricing and packaging transition also creates some short-term ARPU and churn pressure but sets the Company up to earn higher lifetime value from its customers. Overall, approximately 41% of Charter’s customers have been migrated to the new pricing and packaging.

Charter now offers 100 Mbps minimum guaranteed Internet speeds across its footprint, up from 15 Mbps five years ago. In 17% of its footprint, Charter has leveraged DOCSIS 3.1 cable technology standards to boost minimum speeds to 200 Mbps and offer customers the option of up to 1 Gbps services. The speed at which 1 Gbps services are rolled out will depend in part on customer demand, but the Company estimates that the incremental cost will be modest and principally consist of cable modem swaps. According to CEO Rutledge, the Company could ultimately utilize new technology to create up to a 10 Gbps symmetrical network without having to replace many HFC cable lines with fiber.

Assessing Charter’s Outlook in Light of Cord Cutting Developments

Cable TV “cord cutting” remains the proverbial elephant in the room, with related investor fears behind the depressed sentiment toward much of the pay TV investment universe. Without a doubt, the industry is facing secular pressure from evolving consumer preferences and the emergence of robust Internet-delivered “over the top” (OTT) video alternatives. US cable TV household subscribership levels remained roughly flat in the years immediately following the Great Recession, but losses have accelerated in recent years, from ~(-1%) in 2015 to ~(-1.5%) in 2016 and ~(-3.5%) in 2017. With underlying household growth of close to 1% per annum, this translates to a current run-rate annual decline in pay TV household penetration rates of ~400 bps or higher. Television viewership is also showing similar or faster rates of decline, and some traditional multichannel video programming distributors (MVPDs) are resorting to lower ARPU “skinny bundles” and Internet-delivered virtual MVPD (vMVPD) services to retain subscribers as the premium cable bundle frays (“cord shaving”).

Traditional Pay TV vs. vMVPD Subscriber Growth



Source: MoffettNathanson.

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We do not believe that it is realistic to expect an improvement in industry-level cord cutting/shaving trends, but the headline stats can be somewhat misleading. The aforementioned subscriber trends exclude the growing array of vMVPDs, the most prominent of which are Dish Network’s Sling, DirecTV Now from AT&T, Sony’s PlayStation Vue, YouTube TV, and Hulu Plus. According to Nielsen’s latest estimate, there are now ~2.7 million vMVPD households in aggregate. Total vMVPD subscribership is likely well above 4 million, including households that have multiple vMVPD subscriptions and/or that purchase both traditional and vMVPD services. Inclusive of vMVPDs, the rate of pay TV subscriber declines has actually held roughly flat at around (1%)-(1.5%) Y/Y in recent quarters, as illustrated in the preceding chart. Nielsen TV viewership trends are also less unfavorable after accounting for the growing prevalence of time-shifted (on-demand) viewing. When including OTT products, overall consumer video consumption continues to trend upward.

There are strong reasons to believe that Charter, alongside other leading-scale cable systems operators such as Comcast, is best positioned among legacy MVPDs to manage the pay TV decline. In the aggregate, cord cutting almost certainly increases demand for high-speed broadband access, as cable TV viewing is typically replaced by incremental bandwidth-intensive Internet video streaming. Overall consumption of video continues to rise; it is just shifting to what John Malone calls “random access” viewing over the Internet, from a wider range of sources. This particularly helps Charter given its limited overlap with high-speed (fiber-based or cable overbuild) ISP competition. At the same time, Charter’s superior broadband product allows the Company to better retain prospective cord cutters through attractively priced double play and triple play bundles.

These advantages are evident in Charter’s relative subscriber trends. Charter has shed a relatively modest 518,000 video subs over the past 2 years (pro forma), including 292,000 (1.7%) in 2017. This represents ~100 bps average annual decline in Charter’s video subscriber penetration of homes passed by the Company’s cable systems, to 33.9% at year-end 2017. By comparison, the leading MVPDs collectively lost over 3 million traditional video subs in 2017, as shown in the following table. Most of the industry’s recent video losses have been concentrated at the satellite and traditional telecom providers, which can bundle video only with inferior satellite- or copper-based Internet services. Satellite providers DirecTV (AT&T) and Dish Network lost ~1.7 million traditional video subs in 2017 (5%), even after the benefit of intercompany subscriber adds at DirecTV from AT&T’s effort to transition U-Verse subscribers to DirecTV. Overall, the leading telecom providers lost ~900,000 video subs in 2017 or ~9%, excluding Internet-delivered services.¹

Charter, Cable Companies Losing Fewer Video Subs

	Video Subscribers (thousands)		
	<u>YE 2016</u>	<u>YE 2017</u>	<u>% Change</u>
Charter	16,836	16,544	(1.7%)
Comcast	21,488	21,303	(0.9%)
Altice USA	3,535	3,405	(3.7%)
AT&T:			
Satellite (DirecTV)	21,012	20,458	(2.6%)
U-verse	4,253	3,631	(14.6%)
vMVPD (DirecTV Now)	<u>267</u>	<u>1,155</u>	<u>332.6%</u>
AT&T Total	25,532	25,244	(1.1%)
Dish Network:			
Traditional	12,170	11,030	(9.4%)
vMVPD (Sling)	<u>1,501</u>	<u>2,212</u>	<u>47.4%</u>
Dish Network Total	13,671	13,242	(3.1%)
Verizon	4,694	4,619	(1.6%)
Frontier	1,145	961	(16.1%)

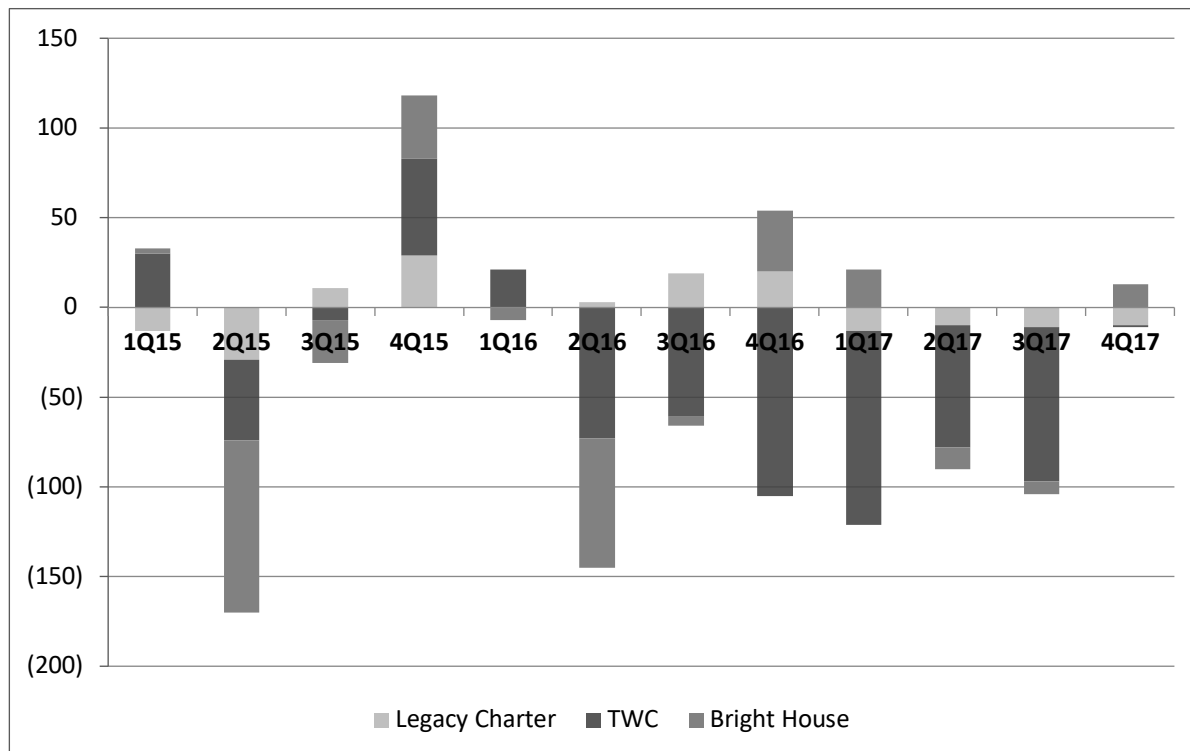
Source: Company filings.

¹ *Advanced Television*, March 13, 2018, <https://advanced-television.com/2018/03/13/us-pay-tv-sheds-1-5m-subs/>.

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Charter’s impressive relative performance comes despite temporarily elevated churn of legacy TWC subscribers as Charter moves the acquired subscribers out of low-margin analog/basic video packages. As illustrated in the following chart, the legacy Charter footprint lost only 44,000 residential video subs in 2017 (80 bps penetration decline) compared to 263,000 legacy TWC video sub losses (130 bps penetration decline). Charter is already roughly halfway through the transition, and although it is too early to call an inflection point, the Company experienced a marked improvement in legacy TWC residential video RSU losses to just 1,000 in 4Q17, compared to 105,000 in 4Q16.

Charter Quarterly Video Subscriber Net Adds (Losses) by Legacy Footprint (thousands)



Charter’s recent outperformance comes despite the growing adoption of vMVPDs that are untethered from consumers’ ISPs. The satellite companies have moved particularly aggressively to offset traditional pay TV subscriber losses by heavily marketing vMVPD products, beginning with Dish’s launch of Sling in 2015 and followed by AT&T’s aggressive marketing of DirecTV Now since having launched it in late 2016. Driven by a desperate attempt to maintain market share, these products are currently priced at limited to negative gross margin for the providers. Charter is not yet meaningfully participating in the vMVPD market, given the challenging relative economics of skinny vMVPD products, but this may change over time. Charter does offer a basic streaming TV service within its cable footprint, and the Company recently (February 2018) unveiled a new “Spectrum TV Choice” streaming product that allows subscribers to receive broadcast channels and a choice of 10 cable channels for ~\$22-\$26 per month, without the requirement of a cable STB. According to Charter, however, ~98% of its subscribers actually still opt for fuller video packages.

The current heavily discounted vMVPD pricing environment is likely to continue in 2018 and beyond, but it may eventually moderate. Furthermore, as the cost of piecing together multiple OTT/vMVPD products on top of a broadband subscription adds up, Charter is well positioned to offer customers a superior value video bundle—whether traditional or Internet streaming. As the OTT/streaming product market continues to rapidly proliferate, this could position the cable provider to again become a “reaggregator” of this content into a value-priced streaming video bundle—potentially in a single bill—much like the traditional cable bundle but with more options. Comcast is ahead of Charter in developing a next-generation video product that aggregates traditional and OTT services with its X1 platform, but Charter will likely follow a similar path. The Company’s scale also allows it to negotiate relatively favorable programming costs with suppliers, and it can offer them location-based

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authentication to limit piracy/password sharing. Charter is also better positioned to provide subscribers with a high-quality streaming experience than competitors by delivering the streaming product over its managed network.

Broadband Business Continues to Boom

Many years ago, John Malone commented that the one thing the cable business needs is a “must-have” Internet streaming video product that will drive consumer demand for high-bandwidth Internet access and, more important, make consumers willing to pay a premium for it. Netflix’s streaming service, which was launched in 2007, has arguably turned into this product as it approaches 65 million subscribers in the US alone. With Hulu and others having followed soon after Netflix’s launch, the array of Internet streaming video products continues to proliferate as even old-world media companies like CBS and Disney race to enter the space. Only cable and full fiber ISPs have been in position to meet this demand, and doing so has required intense capital investment. Charter in particular has been running a capital expenditure budget at industry-high levels for most of the past 6 or 7 years to bring its formerly neglected cable systems up to levels that can satisfy consumers’ ever-increasing bandwidth demands.

Legacy Charter Penetration (Residential + SMB) and Monthly Residential ARPU

	2012				2013				2014			
Penetration:	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
Video Penetration	36.7%	36.1%	35.5%	35.0%	34.7%	34.2%	34.0%	33.9%	34.0%	33.7%	33.5%	33.4%
Internet Penetration	33.0%	33.3%	34.0%	34.4%	35.2%	35.6%	36.4%	37.2%	38.4%	38.9%	39.7%	40.4%
Voice Penetration	18.0%	18.0%	18.5%	18.6%	19.1%	19.6%	19.9%	20.3%	20.7%	21.1%	21.4%	21.7%
Residential ARPU	\$105.01	\$106.08	\$105.69	\$105.92	\$107.33	\$108.71	\$108.68	\$108.12	\$110.29	\$110.81	\$110.81	\$111.52

	2015				2016				2017			
Penetration:	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
Video Penetration	34.6%	34.4%	34.5%	34.7%	34.6%	34.5%	34.5%	34.5%	34.3%	34.1%	33.9%	33.7%
Internet Penetration	41.8%	42.5%	43.6%	44.6%	45.6%	46.2%	46.8%	47.4%	48.3%	48.7%	49.0%	49.3%
Voice Penetration	22.2%	22.6%	22.9%	23.4%	23.6%	23.7%	23.7%	23.8%	23.9%	23.9%	23.9%	23.8%
Residential ARPU	\$109.53	\$110.85	\$110.69	\$111.19	\$110.04	\$111.32	\$111.25	\$110.38	\$109.48	\$111.05	\$111.96	\$111.08

**Note: Penetration figures jump in 1Q 2015 due to a change in the reporting methodology to account for the number of billed units within multiple dwelling units (MDUs).*

The impact of this investment and evolving video consumption patterns on Charter’s broadband business is readily apparent. At Charter’s legacy footprint, residential and SMB Internet penetration has risen dramatically, from 33.0% (~34% under Charter’s current reporting methodology) of homes passed in 1Q12—Tom Rutledge’s first quarter as CEO—to 49.3% at the close of 2017. Inclusive of the benefit from line extensions, this translates to organic Internet PSU growth of ~50% at Legacy Charter since 1Q12.

On a consolidated basis, pro forma for the TWC/Bright House transactions, Charter has continued to post compelling Internet subscriber gains in recent quarters. Charter added 1.2 million Internet PSUs (+5.5%) in 2017, following 1.5 million net adds (+7.3%) in 2016 (pro forma). As illustrated in the following table, Charter’s 2017 broadband market share gains were tops in the industry. The overall pattern is also stark: legacy telecom ISPs are rapidly losing subscribers—only Verizon and AT&T are managing to slow the tide by leveraging fiber in some of their fiber footprints—while the cable MSOs continue to take share in a growing market.

Internet Subscribers (thousands)

		<u>YE 2016</u>	<u>YE 2017</u>	<u>% Change</u>
<u>Cable:</u>	Charter	21,374	22,545	5.5%
	Comcast	22,827	23,863	4.5%
	Altice USA	3,963	4,046	2.1%
<u>Telecom:</u>	AT&T	14,179	14,350	1.2%
	Verizon	7,038	6,959	(1.1%)
	Frontier	4,271	3,938	(7.8%)
	CenturyLink	5,945	5,662	(4.8%)

Looking forward, Charter’s current broadband penetration rate of 48% suggests that the Company still has enough runway to continue to add 1 million-plus broadband PSUs per year for many years to come. Putting a precise figure on Charter’s potential broadband penetration rate at maturity is impossible, but we see ample reason to believe that 60%-plus penetration at maturity is feasible. Charter has limited overlap with fiber-based competition, and consumer bandwidth demand continues to growth at ~50% annually, with no signs of a slowdown. Historical cable companies’ video penetration rates also provide some support for a much higher penetration ceiling. Cablevision under Mr. Rutledge peaked at 69% video penetration in 2006, while Comcast achieved ~55% peak penetration (61% at its legacy footprint). Charter’s long-term broadband penetration rate will depend in part on the ultimate extent to which competitors roll out (or not) fiber or viable 5G, but at this stage telecom ISPs are far less competitive a threat to cable’s Internet business than satellite TV has been to cable TV historically. High-speed Internet is also arguably becoming more of a consumer necessity than cable TV ever was (cable competes against free broadcast TV) and will only become more so in the future.

Wireless Convergence: Risk or Opportunity?

Within the investment community, one of the most frequently voiced concerns regarding the cable industry is that the development of 5G wireless could upend the wireline Internet business. This risk certainly bears continuous monitoring, but in our view the most likely path is a slow convergence of fixed and mobile operators under one roof via partnerships and M&A, with the top cable operators in a far superior negotiating position. Full network convergence (beyond that which has long existed in the most basic sense, such as by device interoperability between Wi-Fi and cellular networks) could take much longer. The technological underpinnings of the proposed 5G standard are beyond our expertise, but 5G remains in the development stage (nor are 5G compatible mobile phones available), and there are many hurdles that will have to be surmounted before wide commercial deployment becomes a realistic possibility. Verizon has announced plans to roll out fixed wireless 5G in-home Internet services in 5 cities by late 2018, but few details have been revealed. Wireless companies have been promoting high-powered, up to 1 gigabit wireless/fixed wireless services with isolated trials and press releases since at least 2010 (including in conjunction with the rollout of 4G/LTE and prior standards), but creating enough spectral capacity to support wide-scale usage and meet ever-increasing bandwidth demands remains a major hurdle. What’s more, 5G connections’ use of higher-frequency bands of the spectrum introduces new propagation issues with interference from weather, buildings/walls, and even trees, cars, and the like. 5G commercialization will require massive network densification, which involves widespread deployment of small cells and fiber backhaul. The required investment could be enormous, and the prospective return remains uncertain.

Several factors suggest that the wireline cable/fiber network owners should remain in a strong position to navigate this development. Cable companies already have valuable infrastructure for developing viable, potentially far more cost-effective 5G networks locally (widely deployed Wi-Fi routers/radios and coaxial/fiber networks). As it currently stands, according to Frost & Sullivan, ~60% of all mobile data is expected to be offloaded onto Wi-Fi networks in 2018 (Charter CEO Rutledge has claimed 80%). The value of cable assets to 5G is evident in Sprint’s (~85% controlled by Softbank) recent partnership agreement with Altice USA. Altice received a full mobile virtual network operator (MVNO) agreement, and in exchange Altice “will leverage its network to support Sprint’s network densification efforts and establish a differentiated network operating model going forward.” Sprint and Softbank have long been touting the mass deployment of small cells as their path to

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5G leadership but have run into massive operational and cost hurdles to date. Their partnership suggests that they see cable partnership as a key to success.

While telecom companies continue to promote 5G in the media, cable operators are actually beginning to encroach into the traditional wireless business via MVNO arrangements. The domestic wireless business remains much more competitive and less profitable than the cable business, with 4 national mobile operators plus numerous low-cost resellers (MVNOs). For these reasons, Charter's management has not rushed into the wireless business, with CEO Rutledge generally less excited by the prospect than John Malone. An MVNO relationship is the easiest path to entry, and Charter (as well as Comcast) received a mobile virtual network operator (MVNO) reseller agreement with Verizon Wireless as part of the sale to Verizon of wireless spectrum owned by a consortium of cable companies in late 2011. In 2016 both Comcast and Charter announced that they would activate their MVNO reseller agreement with Verizon. Charter expects to launch its wireless product in mid-2018.

MVNO arrangements are rarely particularly profitable for the reseller, and the details of the Verizon agreement remain under wraps. Comcast reported a \$480 million EBITDA loss from wireless in 2017 and expects the loss to increase by \$200 million in 2018. Charter is at an earlier stage of development and has not announced any figures but will likely burn a modest amount of cash on the business in 2018. But there are strong strategic and financial rationales for cable's entry into wireless. The addition of wireless and "quadruple play" bundles can significantly reduce customer churn and improve lifetime customer value even if the wireless business is not profitable on a standalone basis. More important, in our view, successfully building out a wireless subscriber base should materially increase Charter's strategic optionality as well as its M&A value. As Charter gains wireless subs, it also gains negotiating leverage with Verizon and other potential network providers. For other potential acquirers (such as Sprint/Softbank), the potential to port Charter's wireless subscribers onto the acquirer's network would be a huge source of synergies—some of which Charter shareholders should capture immediately in a deal premium.

In addition to outright M&A, cable companies could band together to develop Wi-Fi-first wireless networks, to jointly acquire a wireless company, or even to build a challenger wireless network from scratch (although this last is less likely). In fact, in May 2017, Charter and Comcast entered into a 1-year "Wireless Operational Cooperation Agreement" under which the companies will explore cooperation with regard to billing and operating platforms, technical standards, device logistics, and so forth. The companies also agreed not to enter into wireless transactions without each other's consent. This agreement is straight out of John Malone's old cable playbook, which long emphasized cooperation between cable companies on standards and the like. According to some reports, it followed an extended period of broader strategic discussions between Mr. Malone and Comcast CEO/chair Brian Roberts. It is unclear whether anything material has emerged from the agreement to date beyond the leveraging of common back-office infrastructure, but that it has not been flagged by the DOJ/FCC is a positive sign.

Putting the Pieces Together: Is Charter's Growth Engine Intact?

Charter has amassed an impressive track record of revenue growth at or near industry-leading levels during much of Mr. Rutledge's tenure. The Company's broad strategy has been to first upgrade the product (network speed, customer service, new pricing and packaging, etc.) and then to achieve high-single-digit annual revenue growth via a combination of mid-single-digit customer relationship growth and low- to mid-single-digit price increases. Results have broadly followed as expected. Total revenue growth at legacy Charter accelerated from 4.2% in 2012 to 5.0% in 2013 and 8.2% in 2014 as the effects of the Company's strategy (digital transition, network and customer service upgrade, new pricing and packaging, etc.) took hold. Charter continued to post very solid top-line growth of 7.1% in 2015 and 6.8% in 2016 on its legacy footprint. However, legacy Charter revenue growth slowed to 4.6% in 2017 due to fewer customer net additions and flat residential ARPU, which principally reflects video cord cutting. At the same time, growth in the TWC and Bright House footprints remains below trend as the Company implements the new pricing and packaging strategy. Revenue growth was 3.6% in the TWC footprint and 4.1% at Bright House in 2017. Company-wide revenue growth was just 3.9% in 2017 compared to 7.0% in 2016 (pro forma).

Legacy and New Charter Key Financial Metrics (\$MM)

	<u>Legacy Charter</u>				<u>New Charter (Pro Forma)</u>		
	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Total Revenue	8,017	8,419	9,108	9,754	37,394	40,023	41,581
<i>growth</i>	4.2%	5.0%	8.2%	7.1%	5.0%	7.0%	3.9%
Adj. EBITDA	2,864	2,948	3,190	3,406	13,004	14,464	15,301
<i>growth</i>	1.3%	2.9%	8.2%	6.8%	2.1%	11.2%	5.8%
Margin	35.7%	35.0%	35.0%	34.9%	34.8%	36.1%	36.8%

The recent results beg the question of whether the Company's growth strategy is broken as we enter a new era characterized by cable cord cutting and a maturing broadband market. In our estimation, the Company is not facing secular decline but rather is in a transitional stage as the acquired assets are integrated and the business model evolves from a videocentric one to one in which broadband Internet is the dominant profit generator. A return to 7%-8% annual revenue growth may not be realistic in the coming years, but ~4% looks achievable under conservative assumptions. Parsing the 2017 figures, the decline in advertising (11%) and other revenue (2.5%) contributed a greater than 50 bps headwind to overall revenue growth. The advertising decline should reverse in 2018 (another political year), creating a ~50 bps tailwind to consolidated revenue growth.

Residential services revenue actually grew by 4.1% in 2017, slightly faster than overall revenue growth, driven by 11% growth in Internet revenue. Residential customer relationships grew by a healthy 3.4% to 25.6 million due to Internet penetration gains as well as 1.8% growth in homes passed. However, residential ARPU was basically flat at ~\$110/month, essentially all due to cable cord cutting and continued secular pressure on the wireline telephony (voice) business. It is impossible to truly isolate the relative revenue/ARPU contributions of each of Charter's residential services given the accounting leeway in allocating bundled subscription revenue to the various lines, but based on Charter's allocation, video accounted for exactly 50% of residential revenue in 4Q17, while Internet contributed 43%. Notably, on a service line basis, video ARPU grew 3.4% in 2017 (+1.9% in 2016) and Internet ARPU grew 4.5% in 2017 (+5.6% in 2016), suggesting that pricing power within the core video and Internet services is not the issue per se but rather simply the loss of video subs—especially lower-value basic video subs at TWC—and voice revenues.

Revenue Growth Projections

Looking forward, as voice and video become smaller contributors to Charter's top line, revenue trends should stabilize and even reaccelerate upward. Residential broadband adoption is still <80% of households nationally in the US but is increasing by roughly 100-200 bps per year and should continue to creep toward ~85%-90%. Charter has a long runway to continue to expand its cable network footprint by ~1%-2% per year from a combination of household formation/in-fill and modest line extension buildouts. Combined with continued market share gains, this implies that roughly 1 million annual residential Internet PSU net additions could be sustainable. We project annual Internet ARPU growth as slowing from 4.25% in 2018 to 3.6% by 2022. This translates to ~8% Internet revenue growth in 2018 or ~400 bps contribution to total residential revenue growth, with the contribution roughly stable over time as Internet overtakes video as the principal revenue driver. There could be some distortions in Charter's revenue lines depending on the Company's accounting allocations, but Charter's monthly Internet ARPU of just \$54 appears far below the market-bearing price. Standalone Internet pricing is also higher than when bundled, so Charter could actually see faster Internet ARPU growth if more customers opt for broadband-only packages, a move that would blunt the overall residential ARPU impact from cord cutting. For reference, AlticeUSA reported residential Internet ARPU growth of ~9% in 2017, and Comcast reported ~4% growth.

We attempt to take a conservative approach in projecting the evolution of Charter's video business. Mr. Rutledge continues to publicly voice confidence that, once the transitions are complete, Charter can continue to grow its video base in a declining pay TV environment, but this could be a challenge. We do not project that the TWC/Bright House footprints experience the same improvement in video subscriber trends that Legacy Charter recorded over 2014-2016 following the pricing and packaging changes. Instead, we project only a modest improvement in TWC and Bright House video PSU loss trends in 2018, as well as above-inflation video ARPU

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growth due to the digital transition/new packaging. (Video ARPU increased 5.1% Y/Y in the latest quarter.) Thereafter, we project Charter's residential video business as continuing to experience accelerating PSU net losses while ARPU growth also deteriorates, producing residential video revenue declines beginning in 2020.

Charter Revenue Growth Model (\$MM except monthly ARPU)

	Pro Forma		Actual	AAF Projections				
	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018E</u>	<u>2019E</u>	<u>2020E</u>	<u>2021E</u>	<u>2022E</u>
Residential:								
Video PSU Net Adds	(52)	(226)	(292)	(259)	(324)	(431)	(514)	(557)
Internet PSU Net Adds	1,510	1,463	1,171	1,116	1,008	970	916	910
Video ARPU	\$ 78.42	\$ 80.53	\$ 83.23	\$ 86.98	\$ 89.81	\$ 91.83	\$ 92.75	\$ 93.67
Internet ARPU	\$ 48.43	\$ 51.13	\$ 53.41	\$ 55.68	\$ 57.91	\$ 60.22	\$ 62.51	\$ 64.76
Revenue								
Video	16,029	16,390	16,641	17,133	17,376	17,351	16,998	16,566
Internet	11,295	12,688	14,105	15,437	16,793	18,179	19,615	21,114
<u>Voice</u>	<u>2,842</u>	<u>2,905</u>	<u>2,542</u>	<u>2,213</u>	<u>1,879</u>	<u>1,555</u>	<u>1,274</u>	<u>1,039</u>
Residential Revenue	30,166	31,983	33,288	34,782	36,047	37,086	37,887	38,718
<i>growth</i>	NA	6.0%	4.1%	4.5%	3.6%	2.9%	2.2%	2.2%
SMB	3,009	3,409	3,686	4,056	4,333	4,633	4,957	5,307
<u>Enterprise</u>	<u>1,818</u>	<u>2,025</u>	<u>2,210</u>	<u>2,376</u>	<u>2,530</u>	<u>2,682</u>	<u>2,829</u>	<u>2,971</u>
Commercial Revenue	4,827	5,434	5,896	6,432	6,863	7,315	7,787	8,278
<i>growth</i>	NA	12.6%	8.5%	9.1%	6.7%	6.6%	6.5%	6.3%
Ad Sales	1,524	1,696	1,510	1,691	1,471	1,677	1,459	1,634
<u>Other</u>	<u>877</u>	<u>910</u>	<u>887</u>	<u>905</u>	<u>923</u>	<u>941</u>	<u>960</u>	<u>979</u>
Total Revenue	<u>37,394</u>	<u>40,023</u>	<u>41,581</u>	<u>43,811</u>	<u>45,305</u>	<u>47,019</u>	<u>48,093</u>	<u>49,610</u>
<i>growth</i>	5.0%	7.0%	3.9%	5.4%	3.4%	3.8%	2.3%	3.2%

Lest we forget, Charter's commercial business (SMB and enterprise) continues to be a strong growth driver, with SMB revenue up 8.1% and enterprise up 9.1% in 2017. Charter's commercial penetration remains relatively low, supporting continued above-average growth for years to come. Even assuming a moderation in growth, commercial customers could contribute ~15% of Charter's total revenue within a few years. Putting these factors together, we project that Charter can continue to grow the top line by ~3.5% per annum, on average, even under the pressures of a worsening environment of cord cutting and slowing Internet pricing inflation. One should also remember that Charter is putting more emphasis on attracting and maintaining customer relationships with longer lifetime value than on maximizing near-term pricing power. Following we briefly highlight several realistic opportunities for incremental revenue growth beyond those embedded in our projections. In the next section we analyze the potential for margin expansion to drive outsized EBITDA growth even with only ~3%-3.5% medium-term annual revenue growth.

Potential Upside to Revenue Growth Projections:

- The December 2017 rollback of net neutrality rules could increase cable companies' broadband pricing power, including through the implementation of usage-based pricing and/or network access fees.
- Rationalization of the current vMPVD pricing environment.
- Acquisition/retention of cord cutters via new skinny bundles and Internet streaming TV.
- Successful introduction of a fatter bundled Internet-delivered video product or a vMPVD product outside the cable footprint.
- Introduction of mobile wireless services (expected in 2H 2018).

Decoding Relative Margins and Projecting EBITDA Growth

With video revenue growth evaporating, the next key question is how this will impact profitability. Crucially, video customer losses should have a far lesser impact on Charter's consolidated profitability than on its consolidated revenue. Pay TV programming costs have been growing at double-digit annual rates across the industry for many years, denting MVPD gross margins. Charter had a temporary reprieve in 2016 (+7.4% pro forma programming cost growth) due to synergies from its acquisitions, which generally allowed Charter to migrate subs to TWC's lower programming rate card. But programming costs were up 10.2% in 2017, or ~12% on a per-sub basis. As a result, we estimate that Charter's monthly net revenue per video sub declined to just ~\$32 in 2017, as illustrated in the following table. Charter has leeway in accounting for bundled service revenues, as noted, and Charter's programming expense line likely also includes some Enterprise programming costs. Even so, these figures should provide a reasonable approximation of the net revenues generated by video subscribers.

Analyzing Pro Forma Charter Revenue and Cost Drivers (\$MM except monthly)

		<u>2015</u>	<u>2016</u>	<u>2017</u>
Residential Video ARPU	\$	78.37	80.53	83.23
	<i>growth</i>		2.8%	3.4%
Residential Video Revenue		16,029	16,390	16,641
	<i>growth</i>		2.3%	1.5%
Programming Costs		8,953	9,614	10,596
	<i>growth</i>		7.4%	10.2%
Video Net Revenue		7,076	6,776	6,045
Implied Video Gross Margin %		45.3%	42.6%	37.9%
Programming ACPU		42.90	46.20	51.68
	<i>growth</i>		7.7%	11.9%
Implied Video Net ARPU		35.48	34.33	31.56
Costs to Service Customers	\$	7,852	7,924	7,780
Cost Per Customer Relationship (monthly)		26.59	25.74	24.24

The implications are stark: Internet services could generate in excess of 2x the revenue per subscriber of video services by 2019, net of video programming costs, and the gap should only widen as Internet ARPU grows faster than video ARPU and as programming cost inflation continues. Charter's residential Internet PSU count surpassed its video sub base in 3Q 2013 and now stands at 22.5 million versus 16.5 million. Thus, after backing out programming costs, Internet services already accounted for more than 60% of residential net revenues in 2017. We estimate that this figure could approach 75% by 2020—this despite the likelihood of MVPDs' finally beginning to see some moderation in programming expense growth on a per-sub basis going forward as the ongoing viewership declines begin to be reflected in affiliate fees. For example, Viacom will become the first major cable network in memory to experience a decline in affiliate fees as contract renewals catch up with years of ratings declines. Uptake of skinnier bundles will also reduce programming inflation, although this will be offset by lower video margin dollars. Internet revenue also entails some basic connection costs but nothing comparable to video programming. Also of critical importance, pay TV carries far higher costs to service customers than does Internet services due to higher truck rolls required for cable installation, equipment changes, service issues, etc. These costs should decline materially as more customers move to Internet-only offerings—which in many cases customers can self-install.

Putting these dynamics together, Charter's margin expansion and operating profitability growth potential are quite compelling, even in a moderately accelerating cable cord cutting environment. Overall, Charter's pro forma Adj. EBITDA margins have already expanded from 34.8% in 2015, prior to the mergers, to 36.1% in 2016 and then to 36.8% in 2017. A large portion of this reflects merger-related synergies. In addition to the one-off benefit to programming expense growth from the merger in 2016, Charter recorded an absolute decline in costs to service customers in 2017, with the cost per customer relationship declining by 5.4% to <\$24/month. This

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comes despite the insourcing of customer service functions, suggesting that cost savings should be sustainable going forward as video-related customer service costs continue to moderate. Other expenses also declined in 2017, principally due to integration synergies from corporate cost savings.

Looking forward, we project costs to service customers as declining by ~3%-3.5% per customer relationship annually, translating to roughly flat annual costs, as a result of the transition to a less service-intensive Internet business. Service costs declined by 6% on a per-customer basis in 2017, and we project video losses to accelerate, so this expense projection could prove conservative. We project programming cost growth per video PSU as decelerating by ~150 bps per annum and other costs as growing at ~1% per annum. Combined with the aforementioned revenue projections, we estimate that Charter's Adj. EBITDA could exceed \$20 billion and that its Adj. EBITDA margins could reach 40.9% by 2022. Our forecasts do not directly include wireless revenues and expenses, it being too early to forecast, but we would expect the net benefit to be at least neutral to EBITDA by 2022 and hopefully quite positive.

Projecting Charter's Cost Growth and Adj. EBITDA (\$MM except monthly)

	Pro Forma		Actual	AAF Projections				
	2015	2016	2017	2018E	2019E	2020E	2021E	2022E
Total Revenue	<u>37,394</u>	<u>40,023</u>	<u>41,581</u>	<u>43,811</u>	<u>45,305</u>	<u>47,019</u>	<u>48,093</u>	<u>49,610</u>
<i>growth</i>		7.0%	3.9%	5.4%	3.4%	3.8%	2.3%	3.2%
Costs & Expenses:								
Programming	8,953	9,614	10,596	11,517	12,298	12,872	13,191	13,256
<i>growth</i>		7.4%	10.2%	8.7%	6.8%	4.7%	2.5%	0.5%
ACPU	\$ 42.90	\$ 46.20	\$ 51.68	\$ 56.85	\$ 61.68	\$ 66.00	\$ 69.62	\$ 72.41
<i>growth</i>		7.7%	11.9%	10.0%	8.5%	7.0%	5.5%	4.0%
Regulatory, Connectivity, Produced Content	2,065	2,093	2,064	2,085	2,105	2,127	2,148	2,169
<i>growth</i>		1.4%	(1.4%)	1.0%	1.0%	1.0%	1.0%	1.0%
Costs to Service Customers	7,852	7,924	7,780	7,804	7,826	7,825	7,808	7,771
<i>growth</i>		0.9%	(1.8%)	0.3%	0.3%	(0.0%)	(0.2%)	(0.5%)
Marketing	2,309	2,368	2,420	2,474	2,530	2,587	2,645	2,705
<i>growth</i>		2.6%	2.2%	2.3%	2.3%	2.3%	2.3%	2.3%
Transition Costs	72	156	124	62	31	-	-	-
Other Expense	3,139	3,404	3,296	3,296	3,329	3,362	3,396	3,430
<i>growth</i>		8.4%	(3.2%)	0.0%	1.0%	1.0%	1.0%	1.0%
Total Opex	24,390	25,559	26,280	27,238	28,120	28,773	29,188	29,331
<i>growth</i>	-	4.8%	2.8%	3.6%	3.2%	2.3%	1.4%	0.5%
Adj. EBITDA	13,004	14,464	15,301	16,573	17,185	18,246	18,905	20,279
<i>growth</i>	2.1%	11.2%	5.8%	8.3%	3.7%	6.2%	3.6%	7.3%
<i>Margin</i>	34.8%	36.1%	36.8%	37.8%	37.9%	38.8%	39.3%	40.9%

We also see upside to EBITDA margins if Charter gets more aggressive with cost cutting. Charter has clearly already realized some merger-related savings, but we believe that substantial incremental savings potential remains beyond the figures embedded in our projections. Looking to cable competitors' margins provides some context. Altice, known for stringent cost cutting, has made stunning improvements to the former Cablevision's Adj. EBITDA margins: expansion from ~28% in 2014 to 41% (43% company-wide) in 2017. There is some debate about whether these savings are completely sustainable, and, as discussed, Charter has adopted a strategy focused on long-term customer value rather than on maximizing short-term margins. But some of Altice's cost initiatives, such as zero-based budgeting and an emphasis on fully Internet-based

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customer marketing and servicing, self-install, and the like should be imitable at Charter. We would also note that Comcast's communications segment margins already hover at ~40%-41%.

Balance Sheet & Free Cash Flow

Essentially since Tom Rutledge and then John Malone and Liberty joined the Company, the central tenet of the Charter investment thesis has been long-term, levered equity free cash flow growth and share shrink—a familiar John Malone playbook. Charter is still in the early to middle stages of the cash flow transformation as the Company has had to massively ramp its capex in recent years to boost its network quality and then integrate the acquisitions.

Charter Capital Expenditures (\$MM)

	Legacy Charter				Pro Forma New Charter		
	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Pro Forma CapEx:							
Customer Premise Equipment	826	854	1,082	582	2,650	2,761	3,385
Scalable Infrastructure	407	362	455	523	1,702	2,009	2,007
Line Extensions	196	221	176	194	977	1,005	1,176
Upgrade/Rebuild	220	185	167	128	594	610	572
<u>Support Capital</u>	<u>167</u>	<u>232</u>	<u>341</u>	<u>413</u>	<u>1,046</u>	<u>1,160</u>	<u>1,541</u>
<u>Total CapEx</u>	<u>1,816</u>	<u>1,854</u>	<u>2,221</u>	<u>1,840</u>	<u>6,969</u>	<u>7,545</u>	<u>8,681</u>
o/w All-Digital Transition	–	88	410	–	NA	NA	NA
o/w Commercial Services	269	300	242	260	260	824	1,298
o/w Transition					115	460	489
Total CapEx % Revenue	22.7%	22.0%	24.4%	18.9%	18.6%	18.9%	20.9%

Prior to the acquisitions, Charter's capital expenditures peaked in 2014 at \$2.2 billion, or 24.4% of revenue. On a consolidated basis, New Charter's capex has steadily increased from \$7.0 billion (18.6%) in 2015 to \$8.7 billion (20.9%) in 2017. This is far above the spending rate of its cable peers (Comcast ~15%, Altice USA ~12%), but 2017 is likely to have been Charter's near-term capex peak as network upgrade and transition-related expenditures decline. Charter management has forecasted capital intensity (capex as % of revenue) to be "a bit lower" in 2018 and to decline on an absolute basis in 2019. A relatively conservative estimate of Charter's medium-term capex run rate is probably ~17% of revenue. The shift from principally a video-driven to an Internet-driven business model could also offer some dramatic capex relief in the longer term. Customer premise equipment (CPE) was Charter's largest capex bucket, at \$3.4 billion in 2017, with much of it related to the continued rollout of all-digital, two-way video STBs. This should decline materially as consumers shift to Internet video streaming and boxless smart TVs or third-party devices (AppleTV, Roku, etc.). Over the longer term, Charter's level of capital spending is likely to depend on the evolution of competitors' fiber buildouts and consumer bandwidth demands, but as noted, Charter has a relatively low-cost roadmap to offering 1 Gbps services.

From a cash flow and capital deployment perspective, Charter's strategy is already taking hold. Charter produced \$3.3 billion of free cash flow in 2017—still a modest amount relative to Charter's share price (<4% yield) but on a strong upward trajectory from \$2.7 billion in 2016 and \$547 million in 2015. Charter management/board have clearly perceived a discount in the Company's share price in 2017, so they used the opportunity to retire a whopping \$13.2 billion of shares (12.1% of diluted shares outstanding) in 2017 (average price \$347), including 4.3% of shares in 4Q17 alone, as the price dropped. This took leverage up to 4.5x EBITDA, at the high end of the Company's 4.0x-4.5x target leverage ratio. But the Company has taken advantage of the current rate environment to extend its maturities to an average of 11.5 years with only a 5.4% average borrowing cost and 87% at fixed rates.

Looking forward, Charter's FCF should continue to expand rapidly, driven by the combination of EBITDA growth, capex rationalization, and its tax shield. Charter has a huge tax shield from net operating loss carryforwards (\$10.9 billion gross value) and depreciation and amortization of acquired assets with stepped-up tax bases, and the Company does not expect to be a material cash taxpayer until at least 2021. Its tax rate

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should remain low thereafter (~24%-25%) as incremental NOLs become unrestricted and Charter reaps the benefits of the recently passed tax reform act. We estimate roughly flat free cash flow in 2018, expanding rapidly thereafter to exceed \$5.7 billion (~\$30/share) by 2022 even as Charter becomes a full cash taxpayer and capex assuming that capex remains elevated at 17.5% of revenue. By comparison, Comcast and Altice spend ~15% and ~12% of cable revenue on capex, respectively.

Charter Cash Flow Projections (\$MM)

	<u>2016*</u>	<u>2017</u>	<u>2018E</u>	<u>2019E</u>	<u>2020E</u>	<u>2021E</u>	<u>2022E</u>
Adj. EBITDA	14,464	15,301	16,573	17,185	18,246	18,905	20,279
Capex	(7,545)	(8,681)	(9,069)	(8,834)	(8,934)	(8,657)	(8,682)
% Revenue	18.9%	20.9%	20.7%	19.5%	19.0%	18.0%	17.5%
Adj. EBITDA - Capex	6,919	6,620	7,504	8,351	(8,934)	(8,657)	(8,682)
OCF	8,041	11,954	12,341	12,717	13,629	13,850	14,471
Free Cash Flow	2,716	3,273	3,272	3,883	4,695	5,194	5,789
FCF/Share (avg. DSO)	\$ 9.92	\$ 11.03	\$ 12.51	\$ 16.16	\$ 21.15	\$ 25.23	\$ 30.76
Share Repurchases	(1,562)	(11,715)	(8,241)	(6,636)	(7,647)	(6,202)	(10,684)
Net Debt	60,212	69,610	74,579	77,332	80,284	81,293	86,188
Leverage	4.2x	4.6x	4.5x	4.5x	4.4x	4.3x	4.25x

*2016 Adj. EBITDA and capex figures are pro forma.

With leverage at the top of Charter's target range, the Company has somewhat less firepower for share repurchases in 2018. But the combination of FCF and incremental debt capacity from Adj. EBITDA expansion should still allow Charter to spend ~\$8 billion on share repurchases in 2018. We estimate that the Company could shrink its diluted share count by another 27% between 2018 and 2021 while slightly de-levering the balance sheet, even if the annual average repurchase price reaches ~\$425 by 2021. Particularly in light of management's high visibility into the progression of the business strategy and details of M&A conversations, we view heavy share repurchase activity around the current price as an extremely attractive avenue for capital deployment.

Valuation and Conclusion: Sum-of-the-Parts Discount Has Widened

After the recent declines, Charter's forward valuation now stands at or near the lowest levels since the TWC/Bright House merger agreements were completed, at just over 9x 2018E EV/EBITDA. This comes despite the recent passage of tax reform, which substantially improves Charter's long-term EBITDA to FCF conversion and therefore should support EV/EBITDA multiple expansion. Although the current valuation multiple is still higher than those of cable peers and indeed is at the higher end of precedent transactions, Charter offers, in our view, a unique opportunity to invest in a highly scaled pure play cable company with assets that are in the midst of a powerful transformation. The bulk of the synergies from the 2016 three-way combination and strategic realignment are yet to be realized, setting up Charter for faster growth in the coming years. Over the longer term, we expect that the transition to a revenue model principally driven by broadband will unlock higher pricing power, margins, and growth that is currently being obscured by the industry-wide pay TV challenges and the TWC/Bright House digital transition. Charter shares also offer the opportunity to invest alongside a best-in-class CEO and board/shareholders who have clearly demonstrated confidence that the stock is worth far more than the current price. They appear to have made the strategic choice to allow the aforementioned transformations to play out over the coming years, all the while repurchasing large chunks of Charter shares, before reevaluating strategic alternatives with the potential for a far higher exit price.

In estimating Charter's intrinsic value, we look out to 2021-2022 to get a better idea of Charter's normalized FCF and EBITDA levels. We estimate that Charter's Adj. EBITDA could expand from \$15.3 billion in 2017 to \$20.2 billion by 2022. Assuming no EV/EBITDA multiple expansion (and actually a modest contraction), we estimate that Charter's intrinsic value could reach \$500/share by year-end 2020. This equates to a roughly market-level 17.5x P/FCF multiple, which we believe is reasonable for a near-monopoly business with utility-like demand, long-term pricing power, and best-in-class management. Of course, Charter has been the subject of rampant M&A speculation in recent years, and as we detail in the following section, a sale of the Company may

Charter Communications, Inc.

be less likely in the near term but remains a high probability catalyst for incremental upside for long-term shareholders.

Charter Communications Intrinsic Value Estimate (\$MM)

	<u>YE 2021E</u>
Adj. EBITDA (NTM)	20,279
Assumed Multiple	<u>9.0x</u>
Enterprise Value	182,515
<u>Net Debt</u>	<u>(81,293)</u>
Equity Value	100,223
DSO	199.1
Intrinsic Value Per Share	\$ 508.46
P/FCF (NTM)	17.5x
Current Price	\$ 303.87
Implied Upside	67%
IRR	15%

M&A Outlook

In our view, M&A between wireless and cable companies is the most rational/logical step toward mobile/wireless convergence. Dr. Malone, always in favor of “cooperation” over competition, is a strong supporter of this path, which offers huge prospective synergies and eliminates the need for overlapping spending on networks, customer acquisition, etc. His European cable investment vehicle Liberty Global (last profiled by *Asset Analysis Focus* in February 2017) is further along this strategic path toward convergence, which provides a valuable blueprint. Liberty Global has been dancing around a full-scale merger with Vodafone for years but has shown a level of patience that should be appreciated by long-term shareholders. In the meantime, Liberty Global has been selectively selling/merging certain national cable assets into wireless companies at very attractive premiums (~11x EBITDA).

M&A rumors have also been circling Charter for years, and John Malone and Liberty Broadband CEO Greg Maffei have been quite public about the interest. Last November, Dr. Malone coyly said, “And all this noise about everybody wants to buy Charter, you know, everybody wants to have some deal to try—well, it’s actually true.” He noted that they have held discussions with four parties interested in acquiring Charter: Sprint/Softbank, Verizon, Altice, and a fourth unnamed party—in all likelihood, Comcast. To date, they have suggested that nothing has been attractive enough to bring to Charter’s board. Verizon is arguably the most viable and perhaps the most appealing, with leading scale and best-in-class wireless assets. Verizon has sold off much of its wireline assets over the years, most recently in California, Florida, and Texas to Frontier in 2016, which should smooth the regulatory path. Verizon CEO Lowell McAdams has gone on record as saying that a tie-up with Charter makes “industrial sense.” But Softbank also has deep pockets, and Masayoshi Son has shown limitless appetite for M&A. Sprint CEO Claire stated last November that they had reached “advanced negotiations [to buy Charter] . . . but their management team felt they could go at it on their own.” Most recently, in March 2018, there were unconfirmed reports that Sprint/Softbank acquired just under 5% of Charter in the open market.

Cable consolidation also remains a higher-risk (from an antitrust perspective) but not entirely unrealistic prospect. Altice has expressed interest in Charter, but Liberty/Charter appear justifiably disinterested in trading large amounts of stock for a smaller position in a more highly levered entity. (Altice USA is running at ~6x leverage.) In a less probable, but not impossible, turn of events, Comcast could revisit a merger with Charter if the FCC/DOJ under the Trump Administration would be more lenient than when Comcast attempted to acquire TWC in 2014.

Risks

Risks that Charter may not achieve our estimate of the Company’s intrinsic value include, but are not limited to, the following:

Charter Communications, Inc.

- General economic weakness impacting the Company's businesses.
- Continued or accelerating price competition from vMVPD and OTT services.
- Lack of deceleration in programming cost inflation or loss of valuable programming carriage arrangements.
- Incremental fiber competitive buildouts.
- Wireless startup losses or encroachment from 5G wireless.
- Regulatory changes impacting cable industry dynamics.
- Inability to generate expected synergies from integrating acquisitions.
- Lack of rationalization of capital expenditures.
- Excessive balance sheet leverage limiting financial flexibility.
- Loss of key personnel.

Analyst Certification

Asset Analysis Focus certifies that the views expressed in this report accurately reflect the personal views of our analysts about the subject securities and issuers mentioned. We also certify that no part of our analysts' compensation was, is, or will be, directly or indirectly, related to the specific views expressed in this report.

Appendix: Investing in Charter through Liberty Entities

Liberty Broadband (LRBDA/LBRDK)

In prior AAF issues, we have expressed our positive views of Charter through the Liberty Broadband proxy. In this issue, we chose Charter itself as the focus of our report, because Liberty Broadband, being essentially a pure play investment in Charter, might not meet some investors' liquidity requirements. Furthermore, in all likelihood, Liberty Broadband's share performance will not deviate substantially from Charter's. (LBRDA increased 85%, versus 82% appreciation at Charter, since our last full report in January 2015.) Perhaps most important, Liberty Broadband shares currently trade at a relatively modest 6% discount to NAV, near the lower end of their historical range.

Liberty Broadband NAV Analysis (\$MM)

CHTR Equity @ Current Market Value	\$	16,431
<i>Diluted Ownership Percentage</i>		19.7%
TruePosition	\$	—
Cash	\$	81
<u>Debt</u>	\$	(500)
Net Asset Value	\$	16,012
Diluted Shares Outstanding:		
Class A		26.3
Class B		2.5
<u>Class C</u>		<u>154.0</u>
Diluted Shares Outstanding		182.7
LBRD Estimated Net Asset Value Per Share	\$	87.64
Current Share Price (LBRDA)	\$	82.47
Implied Upside to Current NAV		6%
Implied Upside to NAV @ CHTR 2021E Intrinsic Value		77%

Charter Communications, Inc.

The modest discount at LBRD leaves us fairly ambivalent about the preferred investment vehicle. Hereafter we highlight some of the possible merits and risks of Liberty Broadband versus those of Charter. One other factor to note is that Liberty’s ownership is currently capped at 26% of diluted shares (versus 20% currently) but could rise to a maximum of 35% depending on any permanent reduction in Advance/Newhouse’s shareholdings (1:1 ratio). Given Charter’s prolific share repurchase activity, Liberty Broadband could reach this cap in the next few years and thereafter be forced to participate in share repurchases pro rata. Liberty’s shareholder agreement also includes preemptive rights for capital raising/M&A transactions for 5 years.

<u>Positives/Upside</u>	<u>Risks/Downside</u>
<ul style="list-style-type: none"> • Invest alongside Malone and Maffei • Incremental upside vs. CHTR if NAV discount is closed (e.g., via combination with CHTR) • Potential for LBRD to negotiate a premium to NAV or a more tax-efficient (e.g., all-stock) structure if Charter is acquired • LBRD could pursue incremental value-accretive opportunities on its own (stock repurchase, M&A, etc.) 	<ul style="list-style-type: none"> • Lower trading liquidity and voting rights than with direct CHTR investment and incremental G&A • Discount might not close or could widen in the interim (e.g., Liberty Sirius: ~30% discount) • Potential tax liability related to LBRD’s lower cost basis in Charter shares • Potential for a decline in correlation between CHTR and LBRD stock performance, especially if LBRD combines with GCI Liberty

GCI Liberty (GLIBA)

Another Liberty/John Malone vehicle for playing Charter, this one more derivative, is GCI Liberty (GLIBA). GCI Liberty was known as Liberty Ventures before its full separation (from a tracking stock to an independent, asset-backed corporation) from Liberty Interactive (thereupon renamed Qurate Retail Group) was completed on March 8, 2018. GCI Liberty includes a collection of minority investments acquired by Liberty Interactive over the years as Liberty deployed excess cash. GLIBA’s largest assets are direct or indirect investments in Charter. Liberty Ventures/GLIBA purchased 42.7 million Liberty Broadband Class C (LBRDK) shares in May 2016 at LBRD’s then-estimated NAV (based on Charter’s trading price) of \$56.23/share in order to help fund Liberty Broadband’s incremental investment in Charter in conjunction with the TWC/Bright House mergers. Charter also includes minority investments in LendingTree (TREE; ~26% stake publicly valued at \$1 billion) and eVite (private).

In April 2017 Liberty Ventures agreed to acquire Alaskan cable and wireless operator General Communications (GCI) at a \$1.12 billion equity value, paid in the form of \$944 million in newly issued GLIBA stock and \$172 million in 7% preferred non-convertible shares. The deal closed in conjunction with the separation from Liberty in March 2018 and valued GCI at a \$2.7 billion enterprise value, translating to 9.3x 2016 EBITDA (\$288 million) and 8.8x 2017 Adj. EBITDA (\$305 million). This is a full valuation, and Liberty Ventures diluted its existing shareholders (GCI obtained 23% equity in the new entity) in using its undervalued stock to complete the GCI deal. But the merger agreement created the legal path for Ventures to complete a tax-free separation from Liberty Interactive and has been a catalyst for closing the discount to NAV. Liberty Ventures shares surged 17% in the days following the announcement, and we estimate that the discount to NAV at GLIBA—which reached ~50% in Liberty Ventures’ earlier days—has narrowed to ~14%.

GCI Liberty NAV Analysis (\$MM)

	<u>NAV @ Market Prices</u>	<u>NAV @ LBRD, CHTR 2021E Intrinsic Value</u>
GCI EV @ Deal Price or 8.5x NTM EBITDA	2,678	3,005
LBRDK (42.7MM shares)	3,552	5,710
CHTR (5.4MM shares)	1,641	2,746
TREE (3.2MM shares)	1,038	1,038
Other Assets	40	40
<u>GLIB Cash</u>	<u>466</u>	<u>100</u>
Gross Asset Value	9,415	12,677
GCI Debt	1,393	1,393
Margin Loan	1,000	634
<u>LIC Indemnity on Charter Exchangeables</u>	<u>283</u>	-
Total Debt	2,676	2,027
<u>Preferred Shares</u>	<u>172</u>	<u>172</u>
NAV	6,567	10,478
DSO	109.5	110
NAV Per Share	\$ 59.97	\$ 95.26
Current Price - LVNTA	\$ 51.74	\$ 51.74
Discount	(14%)	(46%)
Upside	16%	84%
Upside @ LBRDK Current NAV	19%	

Although the NAV discount has narrowed, GLIBA is still an attractive discounted Charter derivative. Given the disconnect between Charter's current share price and our estimate of intrinsic value, as well as Liberty Broadband's discount to NAV, it could be argued that GLIBA really represents a *triple* discount Charter derivative. We estimate that GLIBA has 19% upside to NAV assuming that LBRDK shares are fully valued at current NAV, that TREE is valued at the current trading price, and that GCI is valued at the transaction price. The current market value of GLIBA's stakes in LBRD and CHTR is \$5.2 billion compared to GLIBA's market cap of \$5.7 million, meaning that GLIBA shares should have a beta of approximately 0.9 relative to CHTR share price movements (~0.9% price movement for every 1% change in CHTR share price). Looking out to year-end 2021, based on the Charter intrinsic value estimate previously detailed and assuming zero discount to NAV at LBRD, modest expansion in GCI's value, and ~\$300 million in debt paydown, GLIBA's NAV could reach \$95/share, or 84% above the current share price. This assumes no appreciation in LendingTree shares, which already trade at a weighty valuation.

GLIBA has a relatively straightforward path toward a combination with Liberty Broadband, which could help close the GLIBA discount—though it is unlikely to eliminate it. LBRD CEO and GLIBA chairman Greg Maffei has stated that a combination could be initiated even before the typical 1-year safe harbor waiting period, given common ownership. GLIBA (or a merged GLIBA/LBRD) also has some firepower with which to close—or at least capitalize on—the discount to NAV via share repurchases. GCI should produce ~\$150 million in unlevered cash flow (EBITDA less capex) in 2018, although about half of this will cover interest expense. But GLIBA should have another ~\$1.2 billion in cash and marketable securities (TREE stake valued at \$1.0 billion) that could provide additional liquidity, and GLIBA could also borrow further against CHTR/LBRDK shares. The GLIBA board has authorized an initial \$650 million repurchase program (11% of the current market cap), but timing is uncertain. Over the longer term, GLIBA's risks and potential opportunities are similar to LBRD's in relation to prospective M&A activity at Charter. The additional assets complicate the scenarios, but GCI could be an attractive target for Charter or for an acquirer of Charter given the synergy potential, and TREE could be spun/sold to simplify the structure.

CHARTER COMMUNICATIONS, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(dollars in millions, except share data)

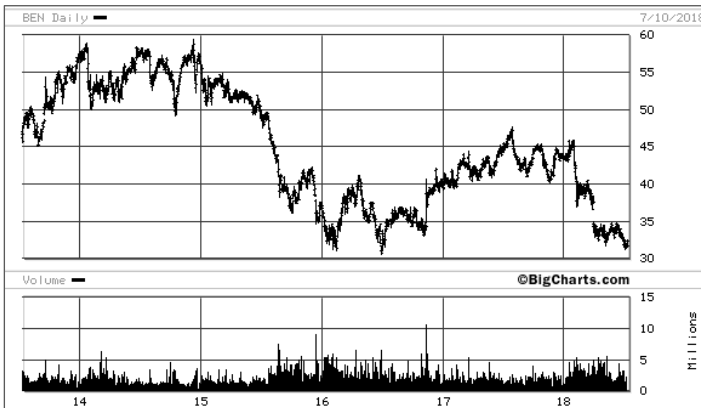
ASSETS	December 31, 2017	December 31, 2016
Current assets:		
Cash and cash equivalents	\$621	\$1,535
Accounts receivable, less allowance for doubtful accounts of \$113 and \$124, respectively	1,635	1,432
Prepaid expenses and other current assets	<u>299</u>	<u>333</u>
<i>Total current assets</i>	2,555	3,300
Investment in cable properties:		
Property, plant and equipment, net of accumulated depreciation of \$18,077 and \$11,103, respectively	33,888	32,963
Customer relationships, net	11,951	14,608
Franchises	67,319	67,316
Goodwill	<u>29,554</u>	<u>29,509</u>
<i>Total investment in cable properties, net</i>	142,712	144,396
Other noncurrent assets	1,356	1,371
TOTAL ASSETS	\$146,623	\$149,067
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Accounts payable and accrued liabilities	\$9,045	\$7,544
Current portion of long-term debt	<u>2,045</u>	<u>2,028</u>
<i>Total current liabilities</i>	11,090	9,572
Long-term debt	68,186	59,719
Deferred income taxes	17,314	26,665
Other long-term liabilities	2,502	2,745
Shareholders' equity:		
Class A common stock; \$.001 par value; 900 million shares authorized; 238,506,059 and 268,897,792 shares issued and outstanding, respectively	—	—
Class B common stock; \$.001 par value; 1,000 shares authorized; 1 share issued and outstanding	—	—
Preferred stock; \$.001 par value; 250 million shares authorized;		
Preferred stock; \$.001 par value; 250 million shares authorized; no shares issued and outstanding	—	—
Additional paid-in capital	35,253	39,413
Retained earnings	3,832	733
Accumulated other comprehensive loss	<u>(1)</u>	<u>(7)</u>
<i>Total Charter shareholders' equity</i>	39,084	40,139
Noncontrolling interests	<u>8,447</u>	<u>10,227</u>
TOTAL SHAREHOLDERS' EQUITY	47,531	50,366
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	\$146,623	\$149,067

Franklin Resources, Inc.

GICS Sector: Financials
July 2, 2018

NYSE: BEN

Dow Jones Indus:	24,307.18
S&P 500:	2,726.71
Russel 2000:	1,655.09
Index Component:	S&P 500



Capitalization and Trading Multiples (\$MM)

Share Price	\$31.61		2016	2017
Diluted Shares (MM)	545.5	EV/EBITDA	3.5x	3.6x
Market Cap	\$17,243	P/E	10.8x	10.5x
Net cash/Inv.*	\$8,764	P/FCF	9.9x	9.6x
		EV/Sales	1.3x	1.3x
		Price/Book	1.4x	1.5x
Enterprise Value	\$8,480			

Trading Statistics

Dividend Rate	\$0.92	Avg. Daily Volume (3mo) (MM)	3.4
Dividend Yield	2.9%	Short % of Float	5.1%
Payout Ratio	N/A		

	High	Low
52-Week	\$47.28	\$31.61
5-Year	\$58.84	\$30.67

Valuation

Intrinsic Value	\$55	Time Horizon	2020
Implied Upside	74%		
Hidden Assets	Yes		
Description	BEN owns 2.1 million square feet of real estate (buildings) including its corporate HQ in San Mateo, California. Various JVs are also hidden assets.		

Share Ownership

	Economic
Johnson Family	~40%
Vanguard	4.9%
SSgA Funds Management	3.5%
MFS	3.2%

Clients of Boyar Asset Management, Inc. own 4,674 shares of Franklin Resources, Inc. common stock at a price of \$35.10 a share.

Analysts employed by Boyar's Intrinsic Value Research LLC own shares of BEN common stock.

AAF History

Report Type	Update
Initially Probed	February 27, 2009
Last Probed	September 15, 2016
Trigger	
Situation	Business Value; Consumer Franchise

Selected Financial Summary (\$MM)

	2015	2016	2017	TTM
Revenues:	\$ 7,949	\$ 6,618	\$ 6,392	\$ 6,413
Operating Income	\$3,028	\$2,366	\$2,264	\$ 2,259
Margin (%)	38.1%	35.7%	35.4%	35.2%
EBITDA	\$3,125	\$2,453	\$2,345	\$2,337
Margin (%)	39.3%	37.1%	36.7%	36.4%
Capex	\$69	\$98	\$75	\$90
Capex (% of Revenues)	0.9%	1.5%	1.2%	1.4%
Free Cash Flow	\$2,341	\$1,751	\$1,805	\$1,734
FCF Yield (%)	14%	10%	11%	10%
Net Cash/Inv.	\$9,200	\$9,600	\$10,400	\$10,400
Share Repurchases (MM)	\$1,060	\$1,308	\$1,060	\$1,250
EPS	\$3.29	\$2.94	\$3.01	\$1.20

Fiscal Year End: September

Overview

Shares of Franklin Resources, Inc. ("Franklin," "BEN," or "the Company") initially performed well after AAF last profiled them in September 2016, however they have fallen out of favor recently (down ~25% from recent highs) and are now 3% lower since that last update (adjusted for a recent \$3 a share special dividend) compared with a 26% increase in the S&P 500. The disappointing share price performance since our last report reflects a number of factors, including the continued underperformance of value-oriented investment strategies, the generally poor recent performance of BEN's products compared with its peers', the ongoing flow of funds into passive investment strategies, and regulatory uncertainty. As a testament to the negative sentiment surrounding the shares, we note that just one of the 15 sell-side analysts following the Company currently rates its shares as a buy.

Although value stocks have been underperforming growth stocks for several years now, these periods of underperformance have always proven to be cyclical rather than secular. Furthermore, we would not be surprised if value

stocks were to begin outperforming, and we note that a rising interest rate environment bodes well for the future performance of value shares. Since there tends to be a strong correlation between fund performance and fund flows, the prospect for future value stock outperformance is encouraging. The shift from active management to passive strategies might be more worrisome, given that it looks to be more structural in nature, though we would not be surprised if the current headwinds associated with passive investing were to shift to tailwinds in a different market environment. There have been significant inflows into passive strategies such as ETFs in recent years, and many of these products have yet to encounter a bear market. How these products will perform in challenging market environments is an unknown, but we doubt the result will be pretty. Another overhang on Franklin's shares has been the uncertainty surrounding the promulgation of the Department of Labor's fiduciary rule, but a recent appeals court decision (March 2018) vacated the rule (the ruling has not yet become effective), which should go a long way toward minimizing the fund outflows associated with brokers' compliance with the rule given the movement toward fee-based offerings.

Asset managers have historically been great businesses generating strong returns and cash flow, and Franklin Resources is no exception. At the risk of preaching to the choir, we believe that it's worth reiterating the Company's attractive merits, which can be overlooked during times of uncertainty or cyclical challenges. Franklin generates strong and largely recurring revenues, commands outsized profitability (~35% operating margins), and produces robust levels of free cash flow thanks to its low capital requirements. (Capex as a percentage of revenue has averaged just 1.2% of revenues during the past 3 years.) The Company's strong free cash generating abilities have enabled it to return a significant amount of value to shareholders over the years. In fact, since the beginning of FY 2007, BEN has returned \$15.1 billion to shareholders via repurchases and dividends/special dividends, representing 87% of its current market cap and an astonishing 178% of its current enterprise value. Returns to shareholders will likely continue to be robust thanks to the Company's newfound liquidity, the result of the new U.S. tax law. Lower federal taxes will bolster BEN's already robust FCF, while favorable repatriation will enable Franklin to deploy its outsized cash hoard (~\$8.5 billion in net cash and investments post special dividend representing ~50% of BEN's current market cap), the majority of which has been held outside of the U.S. Indeed, in addition to its recent special dividend payment, Franklin also increased its quarterly payout by 15% (\$0.92 a share annual dividend; yield: 2.9%) in February of this year and in April BEN increased its repurchase authorization by 80 million shares, for a total authorization of 96 million shares, or ~18% of the Company's outstanding shares.

Following a decline of more than 25% in its share price from recent 52-week highs, BEN now trades at just 1.2% of its assets under management (AUM), representing a significant discount to industry precedent transactions, which have occurred at 2.7% of AUM, on average, over the past ~10 years. In our view, Franklin should command a premium valuation that reflects its strong brands (Franklin, Templeton, Mutual Series, etc.), favorable long-term investment track record, global reach, and future growth opportunities. Nevertheless, in determining our valuation we have applied a discounted 2.5% multiple to our 2020E AUM, resulting in an intrinsic value of \$55 a share, representing 74% upside from current levels. We continue to believe that Franklin would be an attractive target for a larger financial services firm. In addition, if shares continue to languish, we would not be surprised if the founding Johnson family (~40% stake) were to try to take the company private.

History¹

The company now known as Franklin Resources was founded in 1947 in New York by Rupert H. Johnson Sr., who ran a successful retail brokerage firm out of an office on Wall Street. He named his firm after U.S. founding father Benjamin Franklin, who epitomized the ideas of frugality and prudence so central to saving and investing. The Company's first line of mutual funds, Franklin Custodian Funds, was a series of conservatively managed equity and bond funds designed to appeal to most investors.

After Rupert Sr. retired, his son Charles B. Johnson (Charlie) took over as president and chief executive officer in 1957 at age 24. There were only a handful of employees at that time, and the funds had total AUM of \$2.5 million. By the early 1960s, with the Company growing slowly in a market dominated by large insurance companies, Charlie took on a number of roles at the Company, including mutual fund manager, wholesaler, and accountant. In his early years as CEO, Charlie often pitched in by answering busy phone lines, greeting callers

¹ To view our last full report on Franklin Resources—which includes, among other things, an expanded description of the Company's history—please visit http://boyarvaluegroup.com/bvg-pdf/FranklinResources_BEN_2016.pdf.

Franklin Resources, Inc.

with: “Franklin shareholder services, this is Charlie. How can I help you?” Charlie’s brother Rupert Johnson Jr. joined the Company in 1965.

Franklin went public in 1971 with AUM of approximately \$250 million; today, the Company manages \$733 billion. The growth in the Company’s asset base over the years has been attributed to both organic growth and acquisitions. In particular, the following notable acquisitions have not only helped bolster assets, but also expanded the Company’s presence with regard to product type and geography:

- 1988: L.F. Rothschild Fund Management
- 1992: Templeton, Galbraith & Hansberger (global/emerging markets)
- 1996: Heine Securities Corporation (investment advisor to Mutual Series Fund, Inc.)
- 2000: Bissett (Canada: equity and fixed-income funds)
- 2001: Fiduciary Trust (high net worth)
- 2003: Darby (emerging markets, private equity, mezzanine finance)
- 2010: Rensburg Fund Management (UK)
- 2012: Balanced Equity Management (Australia)
- 2013: Heyman y Asociados (Mexico)

In addition to these acquisitions, the Company has stakes in a number of managers outside the U.S., including China Life Franklin Asset Management and Vietcombank Fund Management.

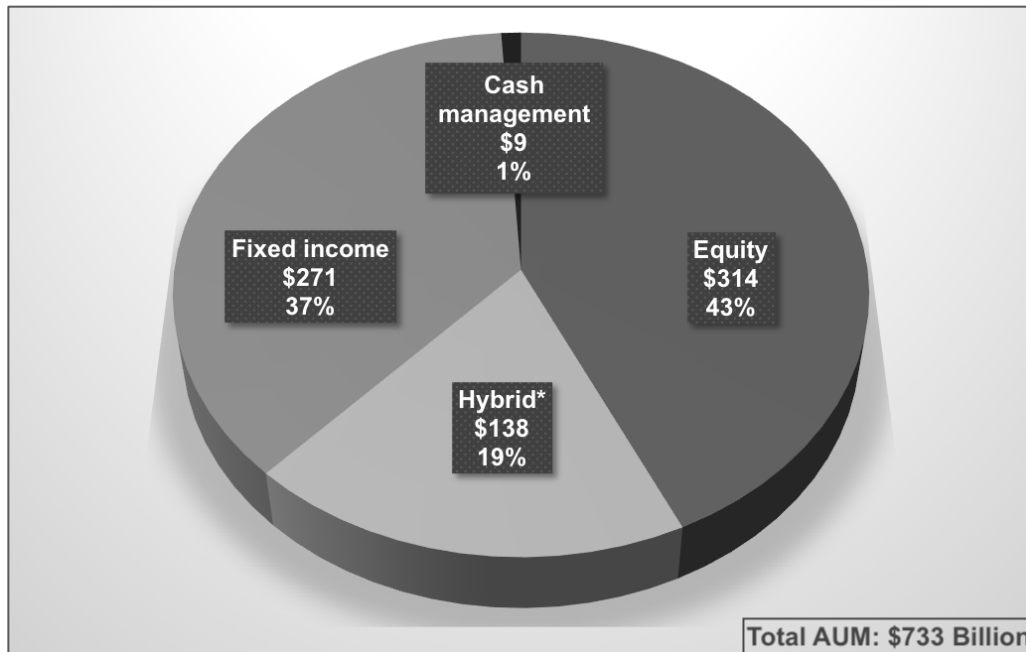
In June 2013, Charlie Johnson, who had been working at Franklin for 56 years and who had served as a board member since 1969, stepped down as chairman, a position he had held since 1999. Charlie was succeeded as Franklin’s chairman by his son, Greg, who has also served as the Company’s CEO since 2004. Franklin has experienced good, though somewhat uneven, growth in AUM under Greg’s leadership, with AUM increasing from \$362 billion at the end of FY 2004 to \$921 billion at the end of 2Q FY 2014. However, AUM have been under pressure in recent years due to a number of factors, including investor redemptions associated with poor investor performance within a number of the Company’s large funds/strategies, the ongoing shift of assets into passive strategies, and regulatory uncertainties. In May 2018, Franklin’s AUM totaled \$733 billion, down about 20% from peak 2014 levels and slightly below the \$740 billion of AUM that Franklin Resources reported when we last featured the shares in *AAF*’s summer 2016 double issue.

The Johnson family continues to have a significant presence and influence over operations at Franklin Resources, with members of the family currently owning ~40% of outstanding shares. Greg’s sister Jenny was appointed BEN’s president in 2015, and brother Charles rejoined the Company’s board in 2013. Although family control does have its benefits, enabling the Company to make decisions that are in the best interests of its long-term success, it also has some drawbacks. Specifically, a number of high-ranking executives have left the firm over the years, ostensibly due to the Company’s structure (no clear path to a position as president or CEO). The most recent high-profile executive departure came in 2017, when Vijay Advani left the firm to join TIAA as that company’s president and COO after more than 20 years at Franklin Resources.

Business Overview

Franklin Resources provides global and domestic investment management to retail, institutional, and sovereign wealth clients in over 180 countries. The Company offers its investment services under a number of brands, including Franklin, Templeton, Mutual Series, Bissett, Fiduciary Trust, Darby, Balanced Equity Management, and K2. Franklin currently has 9,400 employees, including over 650 investment professionals with expertise across a wide range of asset classes and a strong emphasis on risk management. Notably, the Company boasts approximately 100 risk analysts in 19 locations among its employee base, a fact that helps differentiate it from its peers. In addition to its investment management operations, the Company provides a variety of services, including fund administration, sales, distribution, marketing shareholder servicing, and trust, custody, and other fiduciary services. The Company’s specialized teams give it expertise across all asset classes, including equity, fixed income, alternative, and custom solutions. As of May 2018, BEN had \$733 billion in AUM, with about 50% of the total invested in global/international equity and fixed-income strategies. The following provides a breakdown by investment objective:

BEN AUM by Investment Objective (\$B)



*Note: Hybrid includes asset allocation, balanced flexible, alternative, and income mixed funds.

Retail investors account for approximately 75% of the Company's AUM, with institutional investors accounting for the balance (~25%). Franklin boasts strong global distribution, and its global client base is a distinguishing feature of its business relative to its U.S. asset management peers. As of March 2018, approximately 35% of Franklin's assets were derived from non-U.S. investors.

In September 2017, Franklin Resources' U.S. funds (including its open-end and closed-end funds and its insurance products trust) accounted for \$421.4 billion of AUM (56% of the total), with the top five funds responsible for about 25% of total AUM. The Company's three largest cross-border funds (investment funds principally domiciled in Luxembourg and registered for sale in 41 countries) represented about 8% of AUM: the Templeton Global Bond Fund, the Templeton Global Total Return Fund, and the Templeton Growth (Euro) Fund. The following table summarizes the Company's largest U.S. funds:

Franklin Resources Fund Summary - June 2018

Mutual Fund	Ticker	AUM (\$b)	Type	Morningstar Overall Rating	YTD	Rank in Category (%):					
						1 Year	3 Year	5 Year	10 Year	15 Year	
Franklin Income Fund	FKINX	\$83.4	Hybrid	★★★	June 2018	43%	56%	24%	24%	19%	3%
					Shaded	N/A	6%	56%	10%	17%	5%
Templeton Global Bond Fund	TPINX	39.9	Fixed Income	★★★★	June 2018	38%	96%	89%	42%	6%	2%
					Shaded	N/A	98%	94%	56%	3%	2%
Franklin Mutual Global Discovery	TEDIX	22.3	Equity	★★★	June 2018	61%	96%	90%	80%	41%	22%
					Shaded	N/A	57%	59%	46%	23%	17%
Franklin Rising Dividends	FRDPX	18.6	Equity	★★★	June 2018	77%	60%	54%	77%	42%	62%
					Shaded	N/A	2%	65%	74%	52%	7%
Franklin Mutual Shares Fund	TESIX	15.8	Equity	★★	June 2018	83%	97%	91%	91%	66%	71%
					Shaded	N/A	13%	38%	13%	67%	53%

Note: AUM as of September 30, 2017.

Shaded amounts reflect rankings when last we profiled Franklin, in September 2016.

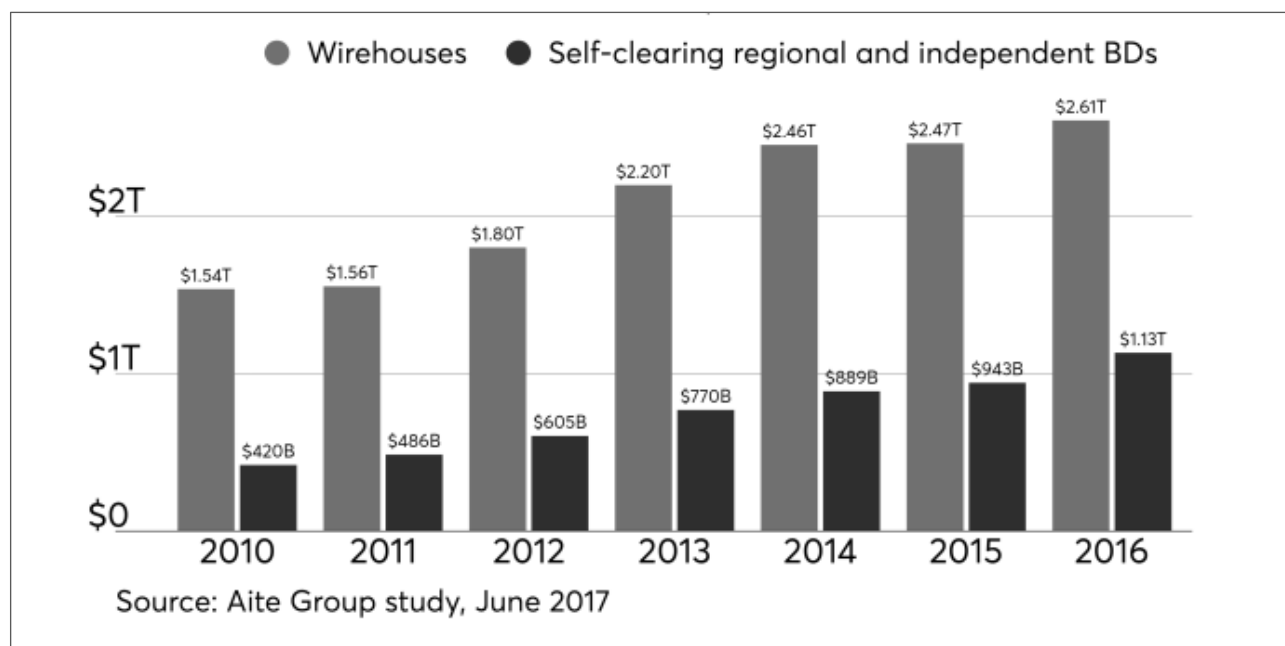
Franklin Resources, Inc.

Since we last profiled the Company's shares, BEN's peer group rankings (according to Morningstar) have been mixed, with some funds improving performance in certain periods even as others have seen a deterioration of performance in key time frames. Although performance has been mixed, a couple of items are worth highlighting: First, the long-term performance of Franklin's two largest funds remains extremely favorable. Second, the 3-year performance of the Company's largest fund, the Franklin Income Fund, has improved materially. Accordingly, we would not be surprised if these factors portended future inflows, as the 3-year performance figure is often a key consideration when evaluating a fund purchase.

Recent Developments

- DOL Update:** Uncertainty associated with the promulgation of the Department of Labor's fiduciary rule not only has been an overhang on Franklin's shares but also has pressured its fund flows. However, the recent appeals court decision to vacate the rule (the ruling has yet to become effective) should go a long way toward improving Franklin's fund flows or at least minimizing outflows. Although the industry is migrating toward more fee-based solutions and away from commission-based products, and although the SEC is contemplating its own best interest rule, the decision to strike down the rule should enable brokers/advisers to continue holding funds for clients that were targeted by the rule. Although firms that have decided to comply with the stricter fiduciary rule are unlikely to roll back their standards, Franklin has been investing in capabilities (personnel, systems, etc.) in order to provide solutions to fee-based advisors. The capabilities required to serve a traditional commission-based broker are different from those required to serve a fee-based advisor, and Franklin has had to bolster its resources to serve this channel. While doing so has required meaningful investment, we believe that it should enable Franklin to emerge as a stronger entity and help it capitalize on the future growth of fee-based accounts. Fee-based accounts at the major wirehouses have been growing strongly and accounted for 39% of assets (\$2.6 trillion) at the end of 2016, up from \$1.54 trillion in 2010. What's more, these accounts are expected to represent over 50% of assets by 2027, according to industry researcher Aite Group.

Fee-Based Accounts by Broker Asset Channel



- Edinburgh Partners Acquisition:** In January 2018, Franklin Resources announced the acquisition of U.K.-based equity manager Edinburgh Partners (acquisition expected to close in the first half of calendar year 2018), which invests in global and emerging markets equities. Edinburgh employs a value discipline, and Franklin's management has stated that given BEN's value bias, they believe the addition of the manager to their stable to be a prudent move in the current environment. Although the transaction is not very material in terms of size, with Edinburgh managing just \$10 billion in assets, the acquisition is

strategic for a number of reasons: First, the transaction should bolster Franklin's distribution capabilities in the UK, since there is currently no overlap between the two companies. Second, the transaction provides Franklin with some key investment personnel, as Edinburgh's CEO, Sandy Narin, was named chairman of the Templeton global equity group as part of the transaction and will be overseeing the group's more than \$100 billion of assets. Mr. Narin is a familiar face at Franklin, as he is one of its notable alumni. Between 1990 and 2000, Mr. Narin was EVP/director of research at the Templeton Global Equity Group. Mr. Narin is expected to report to Stephen Dover, a longtime Franklin employee who was appointed head of the firm's equities business in May 2017.

- **New Tax Law Provides Impetus for Outsized Returns to Shareholders:** Thanks in part to provisions in the new U.S. tax law, Franklin has stepped up returns to shareholders. In April 2018, the Company paid a \$3 a share special dividend, which came on the heels of a 15% increase in its quarterly payout in February. During the quarter ending March 31, 2018, Franklin accelerated its share repurchases, buying back \$433 million of its shares, significantly more than the \$224 million of repurchases the Company has completed, on average, during each quarter over the past 2 years. Franklin has historically held a significant amount of excess cash on its balance sheet, a large portion of which has been trapped outside the U.S. On March 31, 2018, Franklin reported \$10.4 billion of net cash and investments on its balance sheet. However, the recently enacted U.S. tax law is a boon for companies, such as Franklin, that have a large overseas cash balance. Although Franklin is incurring a large \$1.1 billion tax liability—a one-time transition tax on its post-1986 undistributed foreign subsidiaries earnings—it is able to bring back its cash held outside the U.S. (a large portion of its \$10.4 billion in net cash/investments held as of March 2018) tax-free. Although the \$1.1 billion liability is not insignificant, Franklin is able to spread payment of the liability out over 8 years beginning in 2019 (8% in each of the first 5 years, 15% in year 6, 20% in year 7, and 25% in year 8). As a result of Franklin's newfound liquidity, we expect repurchases to be robust going forward, and it should be noted that the recent accelerated buyback occurred for only a portion of the most recently completed quarter. With more favorable repatriation rates going forward under the new territorial system, we would not be surprised if returns to shareholders were to remain robust for the foreseeable future.

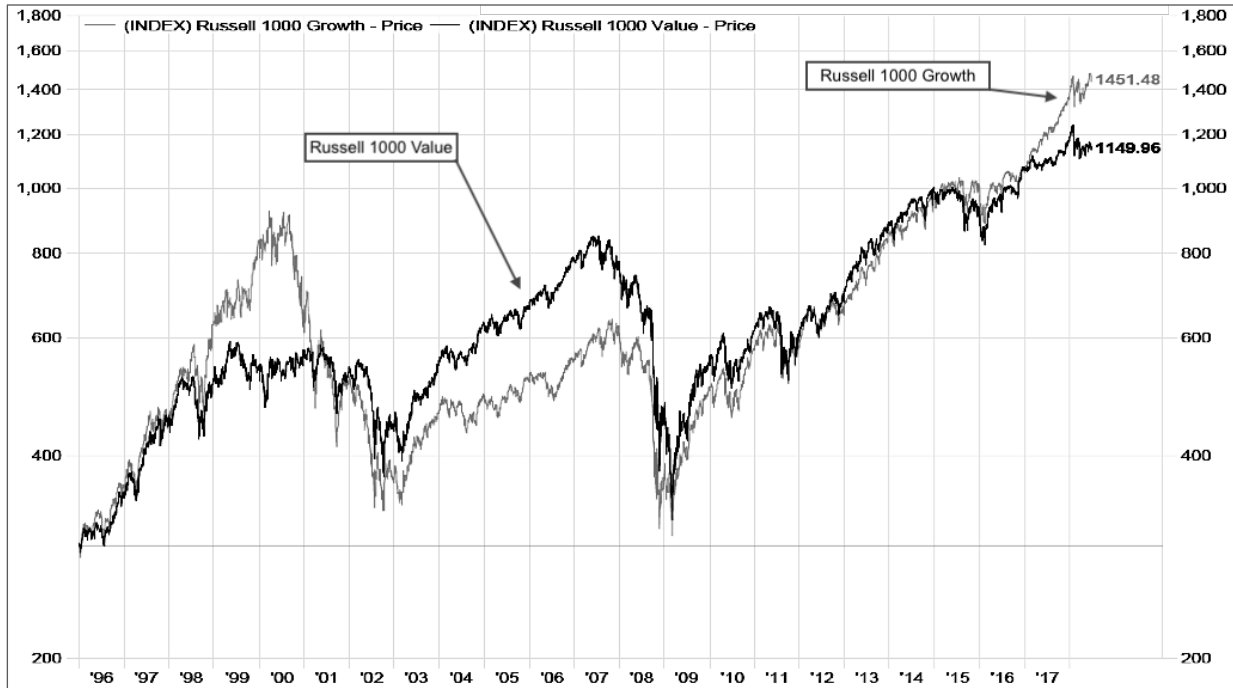
Value vs. Growth; Active vs. Passive

Franklin Resources has been battling a number of significant headwinds in recent years, including the underperformance of its predominantly value-oriented investment strategies compared with growth strategies, the underperformance of its funds relative to peers, and the ongoing migration of assets into passive strategies. While the tide has been going against Franklin Resources for a number of years, there is reason to be hopeful that recent headwinds could pivot to tailwinds in the coming years.

Value vs. Growth

Although value and growth stocks generally kept pace with each other in the wake of the 2008/2009 financial crisis, growth stocks have meaningfully outperformed value stocks by a wide margin over the past ~4 years. The outperformance of growth strategies tends to have an adverse impact on fund flows into Franklin Resources' strategies, given the Company's value investment philosophy bias. A majority of Franklin's assets (both equity and fixed-income) are managed with a value-oriented investment philosophy. Nevertheless, we believe that the current value weakness is a cyclical, rather than a secular, phenomenon, as it is not uncommon for periods of value or growth outperformance to last for multiple years. As illustrated in the following graphic, value stocks have actually underperformed growth stocks during several prior periods, including during the dot-com bubble (1998 to 2000) and from about 2015 to the present.

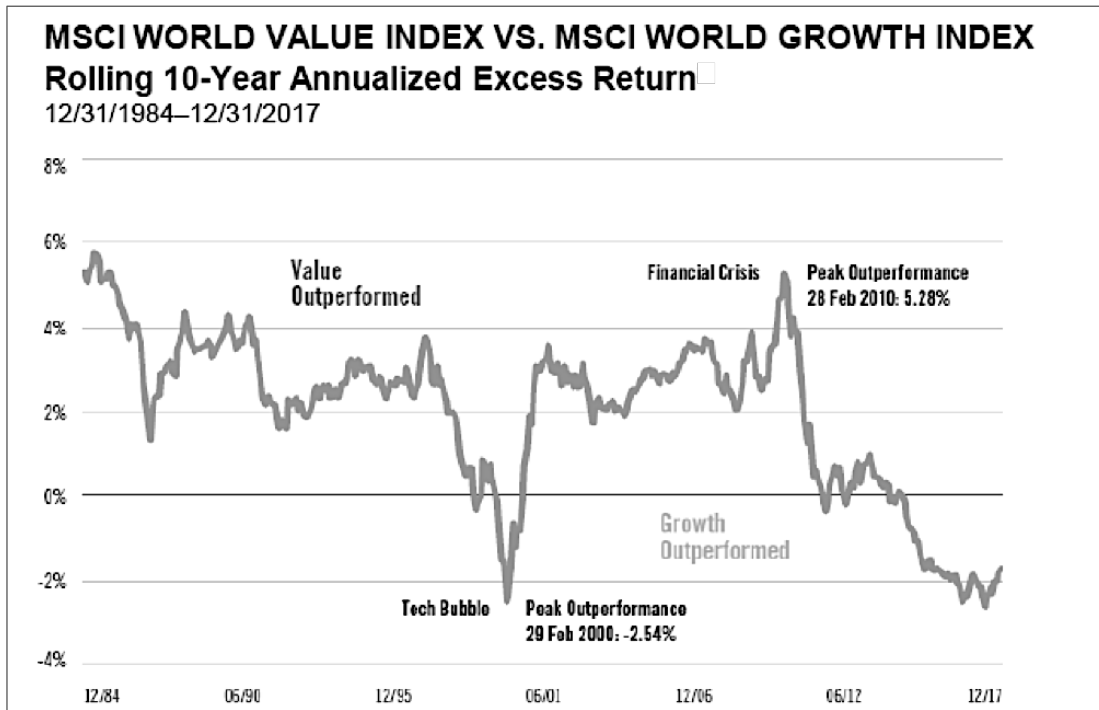
Russell 1000 vs. Russell 1000 Growth



Source: FactSet.

The underperformance of value stocks is not a U.S. phenomenon, having also been experienced globally during this same time period. Given Franklin’s strong global presence, based on AUM and its client base, it’s not surprising that its fund flows have been adversely impacted. The following graphic compares value versus growth on a global basis.

Value Underperforming Globally



Source: Franklin Resources 2Q FY 2018 earnings commentary.

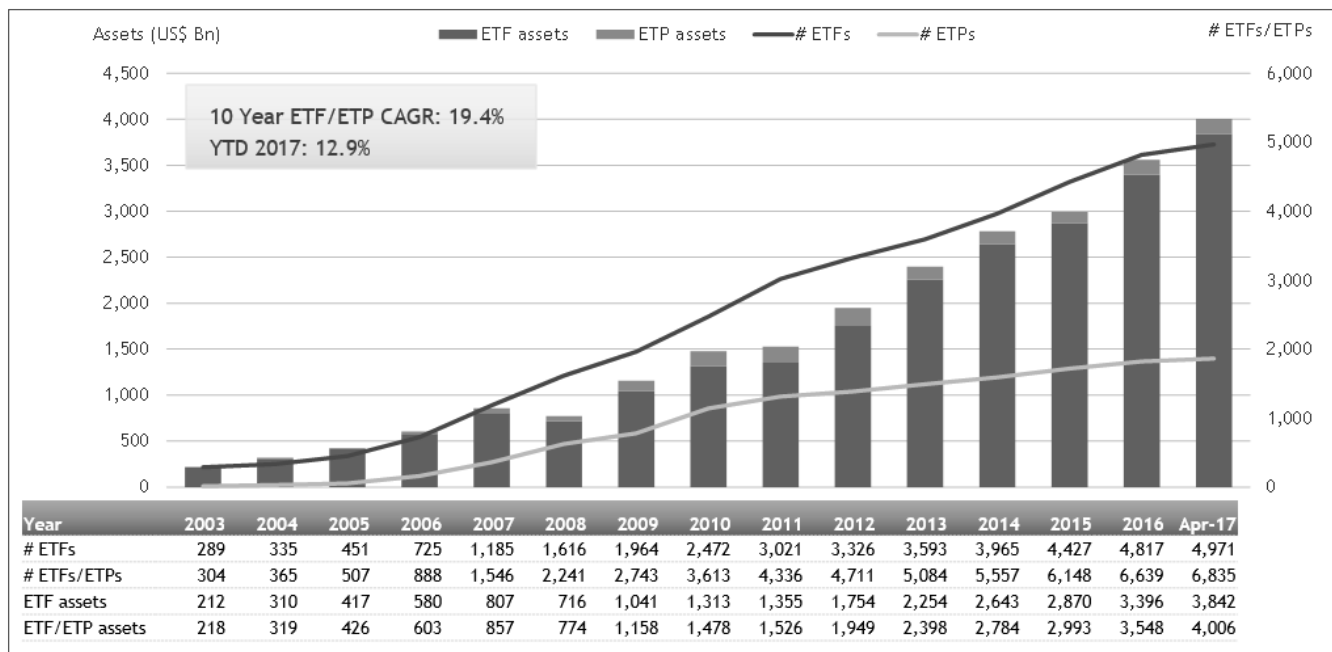
Franklin Resources, Inc.

Particularly telling about the preceding two charts are the long periods of outperformance that value strategies have experienced during past cycles. Based on recent performance trends, many investors currently expect growth stocks to continue their upward trajectory indefinitely. However, history has clearly shown that styles come in and out of favor. From 2000 to about 2008, when value investing was last in vogue, Franklin Resources’ AUM expanded significantly, increasing from \$246 billion at the end of FY 2001 to \$646 billion at the end of FY 2007.

Although value stocks have lagged growth stocks, many of Franklin’s strategies have also been underperforming their respective benchmarks, helping to magnify the amount of outflows that the Company’s funds/strategies have experienced. The prospect for ongoing interest rate increases going forward, an environment which tends to bode well for value-oriented investors as a whole, should be beneficial to Franklin given its particular exposures. For example, the Franklin Income Fund is overweighted with energy stocks and has a large absolute exposure to financial services stocks, both of which should do well in a rising interest rate environment.

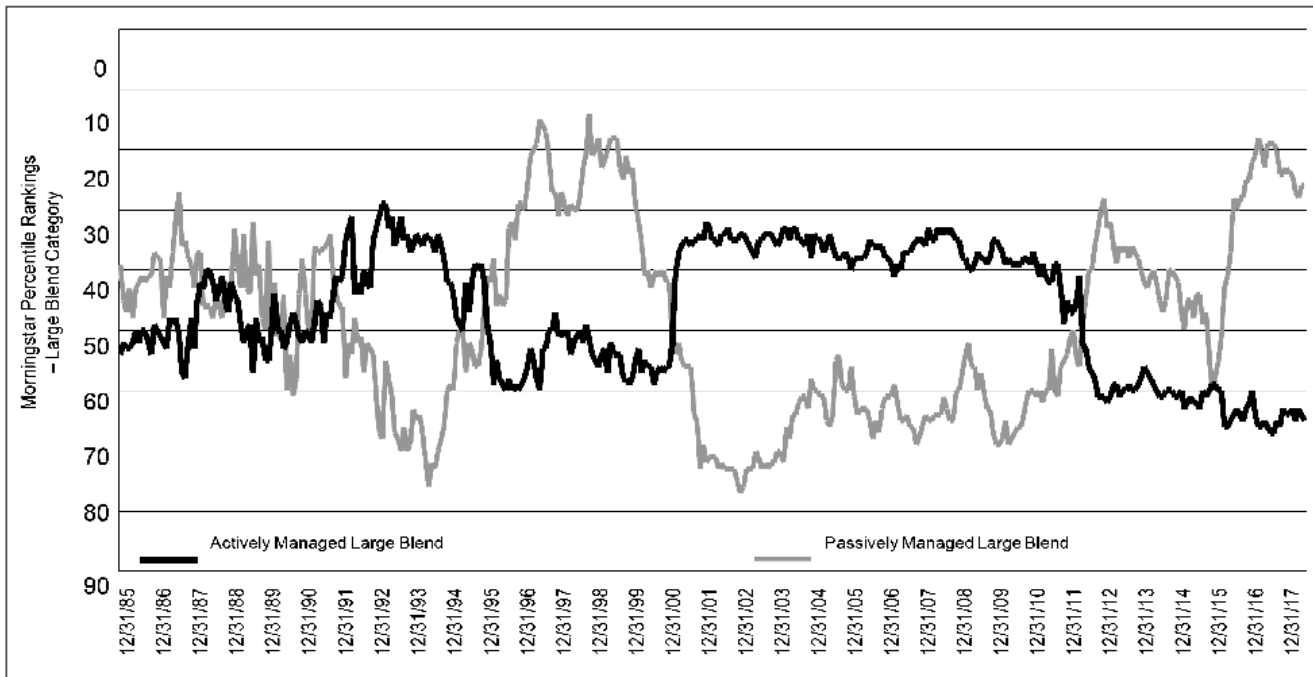
Active vs. Passive

Assets invested in passive strategies have experienced strong growth in recent years. In the U.S., approximately 41% of assets are held in passively managed funds, approximately double the amount invested in such funds just 9 years ago. According to data from Morningstar, passive strategies outperformed active ones in 7 of the past 8 years, through 2017. Given the outperformance of passive strategies, it should come as no surprise that flows into passive products have been strong. As illustrated in the following chart, passive products surpassed \$4 trillion as of April 2017. (In early 2018, the dollar value invested in ETF/ETPs surpassed \$5 trillion.)



Although the outperformance of passive strategies in recent years may prompt some investors to proclaim the “death of” active management, active and passive performance trends tend to be a cyclical phenomenon (similar to the performance of value and growth strategies over time). As illustrated in the following chart, which compares the performance of active large-cap funds with S&P 500 index funds, there have been many distinct periods when active strategies have outperformed passive ones.

Active vs. Passive Investing: Rolling Monthly 3-Year Periods, 1985-2017



Source: Morningstar Direct via M&G Investments, January 2018.

Accordingly, we would expect the outperformance of passively managed products to reverse itself at some point during the coming years. When the trend does reverse, the benefit for active managers could be significant, as fund flows tend to follow performance. It is also worth noting that the meaningful amount of growth into passive products just mentioned has occurred in a relatively benign and upward-trending equity market. Accordingly, many of the “managers” of passive products have yet to face a significant market correction or economic shock. If history is any guide, the performance of major indices, after being led by a few high profile stocks similar to today’s environment, during the early 2000s was abysmal. When a reversal occurs during this cycle, we believe it could portend well for active managers.

At present, it looks like we could be at an inflection point for active management outperformance. According to a recent study by B of A Merrill Lynch, 68% of managers have been outperforming their benchmark thus far during 2018. The resurgence in active managers follows improvement in active manager performance during 2017, when approximately 43% of active managers outperformed their benchmark, according to data from Morningstar—up from the 26% of active managers that outperformed during 2016.

Growth Opportunities

- **Alternative Investments:** Franklin currently owns 82% of K2, which is a hedge fund solutions provider that offers and supports alternative investments and multi-asset solutions platforms for institutional and other qualified investors. Although the business initially faced some challenges after BEN acquired it in 2012, it is producing solid results now, and management recently noted that it is currently attracting \$500 million in net inflows on a quarterly basis.
- **Liberty Shares:** Although active management will likely be the core of Franklin’s business for the foreseeable future, the Company is not ignoring broader industry trends. Through its Franklin LibertyShares business, BEN currently offers 38 ETFs in Canada and Europe, including 16 regional and country-specific funds launched in the U.S. BEN recently launched a Smart-Beta Multi-Factor Emerging Markets product in Europe (making it the first company to do so) that increased its ETF presence in the region. As a testament to the Company’s ETF capabilities, no ETF sponsor has previously managed to develop locally listed ETFs in the U.S., Canada, and Europe in such a short time.

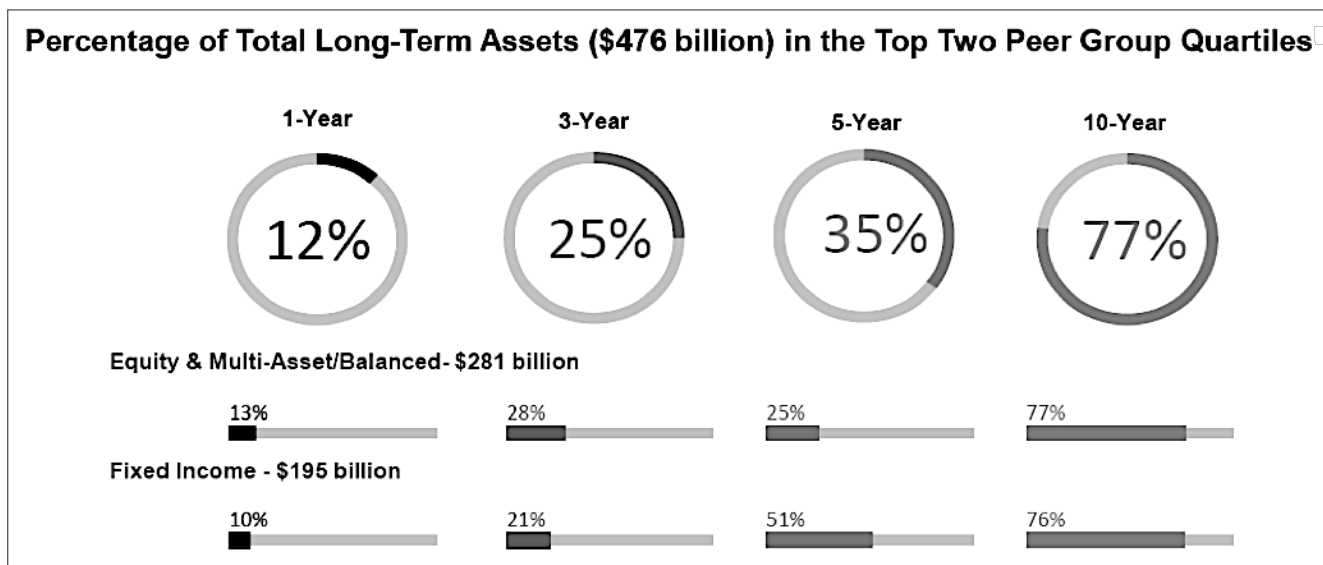
Franklin Resources, Inc.

- **Growth Strategies:** While Franklin is viewed largely as a value manager, it does have exposure to growth investing strategies. Although its growth strategies represent the minority of its assets, it is worth noting that several of its U.S. equity funds have posted strong results versus their peers over the 3-, 5-, and 10-year periods.
- **Emerging Markets:** Franklin has a presence in a number of fast-growing and promising emerging markets, including India and China. While these markets are currently not very material to the Company’s overall results, BEN recently noted that fund sales and demand for its products have remained strong. Within China, Franklin recently stated that it has upgraded its license in Shanghai, and management expects that region to be a sizable market for the Company going forward.

Recent Results

The investment performance of Franklin’s U.S. and cross-border mutual funds has been mixed, with most trailing 3-year and 10-year aggregates improving modestly, although the 1-year and 5-year time frames continue to be challenged. As illustrated by the following chart, the Company’s 10-year track record relative to its peers is impressive, though the other time frames are somewhat uninspiring (as of March 31, 2018).

Franklin Resources’ Long Term Investment Performance is Very Strong

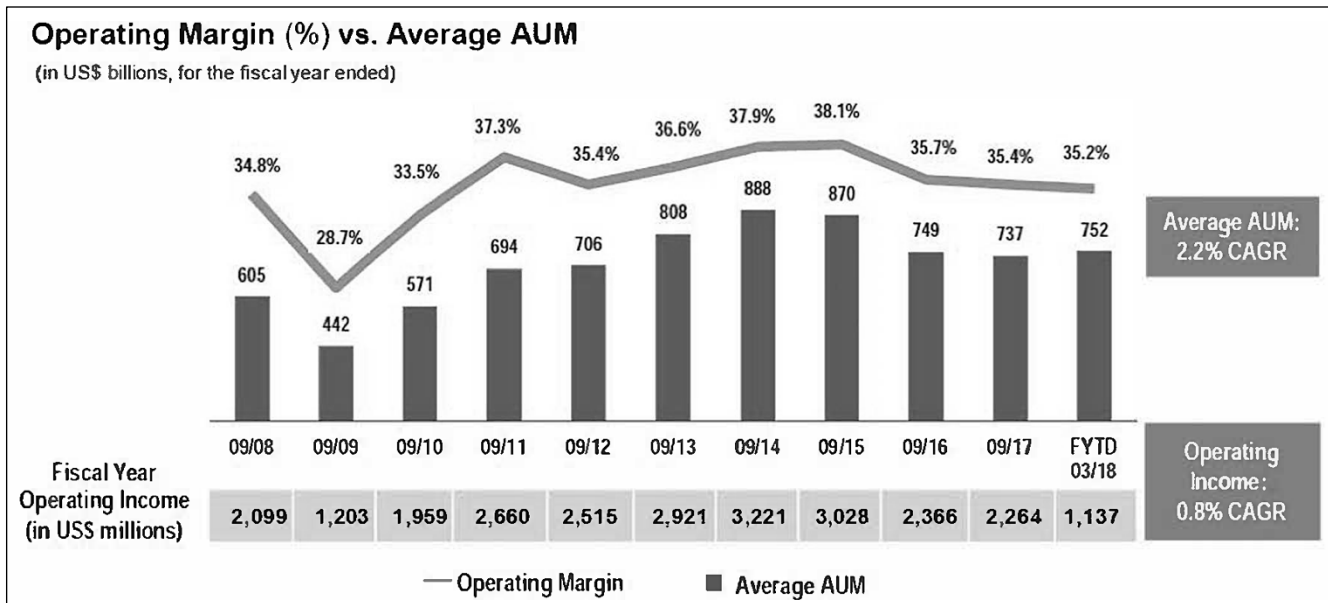


Source: Franklin Resources’ 2Q FY 2018 earnings commentary.

Due in part to the weak performance numbers posted by its funds, Franklin has continued to experience outflows. During the most recent quarter, long-term outflows increased to \$10 billion, but Franklin’s net flows on a year-to-date basis have improved from the prior-year period.

Although Franklin continues to invest in its business, it continues to keep a close eye on costs, as AUM have yet to return to prior peak levels. Thanks to this expense discipline, Franklin has begun to see its operating margin stabilize at its lower AUM base.

Franklin Resources Operating Margin vs. AUM

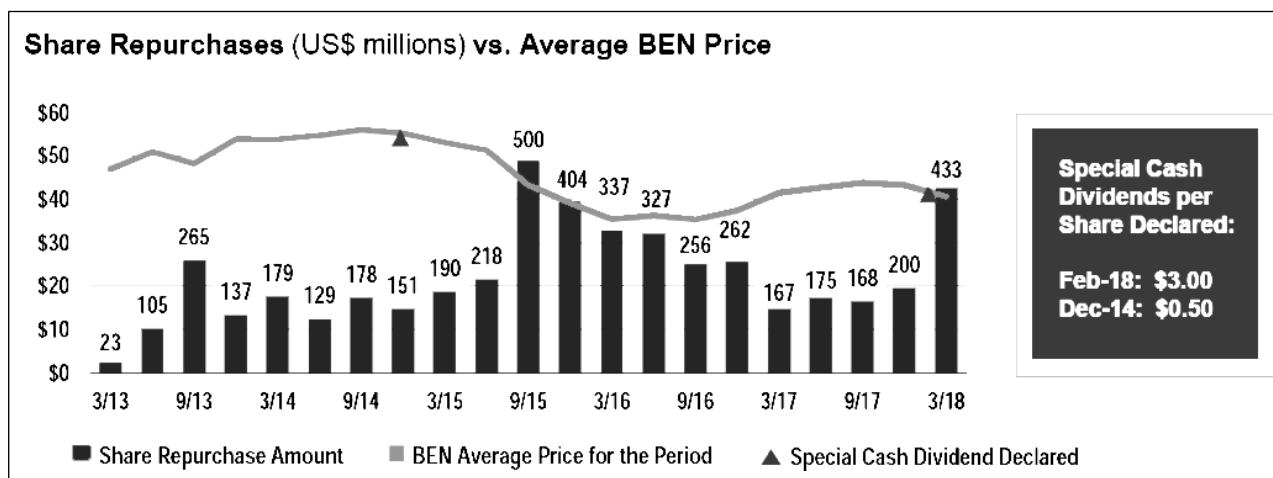


Source: Franklin Resources 2Q FY 2018 earnings commentary.

Balance Sheet, Free Cash Flow, and Capital Allocation

Franklin has historically maintained a very strong balance sheet, which is a function of a number of factors, including the Company’s outsized free cash flow generation, large family ownership, conservative heritage, and meaningful international presence, the latter of which has heretofore presented repatriation issues. These factors have also enabled the Company to return significant value to shareholders via dividends and share repurchases. Since the beginning of FY 2017, Franklin has returned \$15.1 billion to shareholders via repurchases (\$10.5 billion) and dividends/special dividends representing 87% of its current market cap and 178% of its current enterprise value. As discussed earlier, in the wake of the new tax law, Franklin has paid a special dividend, increased its regular dividend by 15% to \$0.92 a share (yield: 2.9%) and accelerated its pace of share buybacks. It should be noted that \$433 million of stock repurchased during the quarter ending March 2018 were significantly above the \$224 million average in each of the preceding 8 quarters and that the most recent quarter only represented a partial quarter of elevated repurchase activity.

Franklin Resources Share Repurchase Summary



Source: Franklin Resources 2Q FY 2018 earnings commentary.

Franklin Resources, Inc.

The Company's newfound liquidity in terms of increased free cash flow generation (because of lower federal income tax rates) and a more favorable repatriation environment should enable the Company to sustain its outsized returns to shareholders. As illustrated in the table below, Franklin generates strong levels of annual free cash. While there has been some volatility in the Company's free cash flow, it is worth noting that Franklin's cash flow from operations is somewhat understated because it reflects items that would not normally be seen as operating activities. (For example, if Franklin funds a seed investment or new product, the item is reflected in the operating portion of the cash flow statement rather than the investing portion.)

Franklin Resources: Free Cash Flow Summary (\$MM)

	<u>FY</u> <u>2010</u>	<u>FY</u> <u>2011</u>	<u>FY</u> <u>2012</u>	<u>FY</u> <u>2013</u>	<u>FY</u> <u>2014</u>	<u>FY</u> <u>2015</u>	<u>FY</u> <u>2016</u>	<u>FY</u> <u>2017</u>	<u>6 Mos FY</u> <u>2018</u>
Net cash provided by operating activities	\$1,651.0	\$1,621.8	\$1,066.2	\$2,035.7	\$2,138.0	\$2,252.0	\$1,727.0	\$1,135.4	\$897.0
<u>Additions of property and equipment, net</u>	<u>(\$57.4)</u>	<u>(\$131.7)</u>	<u>(\$78.4)</u>	<u>(\$62.2)</u>	<u>(\$53.1)</u>	<u>(\$68.8)</u>	<u>(\$97.6)</u>	<u>(\$74.9)</u>	<u>(\$43.7)</u>
Free Cash Flow	\$1,593.6	\$1,490.1	\$987.8	\$1,973.5	\$2,084.9	\$2,183.2	\$1,629.4	\$1,060.5	\$853.3
Net impact of increase/decrease in trading securities	\$143.0	\$518.4	\$780.8	\$211.5	\$563.1	\$157.8	\$121.9	\$744.8	\$11.9
Adjusted Free Cash Flow	\$1,736.6	\$2,008.5	\$1,768.6	\$2,185.0	\$2,648.0	\$2,341.0	\$1,751.3	\$1,805.3	\$865.2
Capex/Sales	1.0%	1.8%	1.1%	0.8%	0.6%	0.9%	1.5%	1.2%	1.4%

Although shareholder-friendly initiatives will likely consume a large amount of BEN's future excess capital, M&A could become more likely now that the potential universe of acquisition opportunities has increased. As a result of the new tax law, Franklin is now able to more closely consider domestic opportunities without having to worry about the impacts of a hefty repatriation tax. At the end of the most recent quarter (March 2018), BEN held about \$3.6 billion of excess cash, a figure that excluded \$3.6 billion in cash held for regulatory purposes.

Valuation

At current levels, we believe that Franklin Resources trades at an extremely attractive valuation. Adjusting for the payment of BEN's recent special dividend and backing out the Company's large cash balance, we estimate that shares are trading at just 1.2% of the its most recently reported AUM (May 2018). This represents an ~44% discount to the level at which precedent industry transactions have occurred (~2.7%).

Selected Precedent Industry Transaction - Asset Managers

<u>Date</u>	<u>Target</u>	<u>Acquirer</u>	<u>AUM (MM)</u>	<u>Price (MM)</u>	<u>% AUM</u>	<u>Misc.</u>
2017	Aberdeen Asset Management	Standard Life	\$383,600	\$4,670	1.2%	
2017	Fortress Investment Group	SofftBank Group	\$69,600	\$3,300	4.7%	
2017	Sentry Investments	CI Financial	\$15,000	\$615	4.1%	
2017	One Path Pensions and Investments	IOOF Holdings	\$18,700	\$770	4.1%	
2017	Old Mutual Global Investors' Single Strategy	TA Associates and Management	\$34,300	\$800	2.3%	
2017	Aletti Gestielle	Anima Holding	\$21,100	\$810	3.8%	
2017	Guggenheim Investments' ETF Business	Invesco	\$36,700	\$1,200	3.3%	
2017	Focus Financial Partners	Stone Point Capital and KKR	\$110,000	\$1,400	1.3%	
2016	Janus Capital Group	Henderson Global Investors	\$195,000	\$2,600	1.3%	Fundamental Equity represented ~50% of Janus AUM
2016	Santander Asset Management	Banco Santander	\$183,000	\$2,600	1.4%	Implied price based on 50% stake acquired
2015	First Eagle Investment Management	Blackstone/Corsair	\$100,000	\$4,000	4.0%	Implied price based on majority stake
2014	Nuveen Investments	TIAA-CREF	\$221,000	\$6,250	2.8%	
2014	Quilter Cheviot	Old Mutual	£16,700.0	£585.0	3.5%	
2013	Epoch Investment Partners	TD Bank	\$25,900	\$668	2.6%	
2011	Neuberger Berman	Management	\$183,000	\$2,480	1.4%	Implied price based on purchase of 48% stake
2011	American Century Investments	CIBC	\$112,000	\$2,075	1.9%	Implied price based on purchase of 41% stake
2011	Gartmore Group	Henderson Global Investors	\$25,700	\$520	2.0%	
2010	DundeeWealth	Scotiabank	\$83,000	\$2,805	3.4%	Implied price based on purchase of 82% stake
2010	Artemis Investment Management	AMG and Artemis Management	\$16,100	\$400	2.5%	
2010	Rensburg Sheppards	Investec	\$18,400	\$623	3.4%	Implied price based on purchase of 53% stake that Investec did not already own
2008	J. & W. Seligman	Ameriprise Financial	\$18,000	\$440	2.4%	
2008	Phillips, Hager & North	Royal Bank	\$68,000	\$1,340	2.0%	
2008	Monte Paschi Asset Management	Clessidra	\$34,000	\$585	1.7%	
2008	Psagot Investment Management	Apax Partners	\$31,900	\$822	2.6%	Implied price based on purchase of 76% stake
2007	Jupiter Asset Management	TA Associates and Management	\$37,000	\$1,440	3.9%	
2007	Marsico Capital Management	Thomas Marsico	\$94,000	\$2,700	<u>2.9%</u>	
Average:					2.7%	

Sources: Cambridge International Partners Inc. via Pensions and Investments; Others

Based on our assumption that the Company's AUM will increase at just a 2.5% annual rate over the next 2 years, and valuing BEN at a discounted 2.5% of AUM, we derive an intrinsic value for the Company of \$55 a share, representing 74% upside from current levels.

Franklin Resources, Inc. - Estimate of Intrinsic Value

	<u>Value (\$MM)</u>
BEN @ 2.5% of Estimated 9/30/2020 AUM	\$19,478.6
Net Cash and Investments FY 2020E	\$8,444.7
Tax Act Liability (Full Amount)	<u>(\$1,120.7)</u>
Equity Value	\$26,802.5
Shares Outstanding FY 2020E	486.7
Per Share	<u>\$55.07</u>
Implied Upside to Estimate of Intrinsic Value	74.2%

Additional components of our valuation include:

- **Revenue:** Although we are forecasting an ~2.5% annual increase in BEN's AUM over the next 3 years, we project revenue to increase at a slightly lower rate due to our assumption of modest fee compression.
- **Margins:** We project that Franklin's operating margins remain in the mid-30s percentage range though this assumption could prove conservative should AUM increase from current levels.
- **Share Repurchases:** We project that Franklin deploys \$3.4 billion over the next 3 years (FY 2018-FY 2020) toward share repurchases, buying back ~83 million shares at an average price of ~\$40 a share.
- **Tax Act Liability:** We have applied the full amount of the Company's Tax Act liability in determining our valuation, however the present value of this liability is much lower. In our view, this represents a conservative approach.
- **Excess Real Estate:** We have not ascribed any value to the Company's various real estate holdings (2.1 million square feet of office space including its headquarters in San Mateo, California) though this could provide an additional source of value and financial flexibility.

The following table illustrates BEN's valuation at various AUM multiples and growth rates:

9/30/20 AUM		<u>Annual Growth in AUM (FY 2019 and FY 2020)</u>							
Projected Amount (\$MM)		\$644,342	\$687,574	\$732,500	\$779,143	\$827,525	\$877,665	\$929,586	
%	of Assets Under Management		<u>-5.0%</u>	<u>-2.5%</u>	<u>0.0%</u>	<u>2.5%</u>	<u>5.0%</u>	<u>7.5%</u>	<u>10.0%</u>
		1.0%	\$27.81	\$28.84	\$29.93	\$31.06	\$32.24	\$33.47	\$34.75
		1.5%	\$34.34	\$35.85	\$37.42	\$39.06	\$40.78	\$42.57	\$44.43
		2.0%	\$40.88	\$42.85	\$44.91	\$47.07	\$49.32	\$51.66	\$54.11
		2.5%	\$47.41	\$49.85	\$52.41	\$55.07	\$57.86	\$60.76	\$63.79
		3.0%	\$53.95	\$56.86	\$59.90	\$63.08	\$66.40	\$69.86	\$73.47
		3.5%	\$60.48	\$63.86	\$67.39	\$71.08	\$74.94	\$78.96	\$83.15
		4.0%	\$67.02	\$70.86	\$74.88	\$79.09	\$83.47	\$88.05	\$92.83

Should the value versus growth pendulum or the active versus passive pendulum shift in Franklin's favor, our intrinsic value estimate will likely prove extremely conservative. If Franklin's shares continue to languish, we would not be surprised if Franklin were to become the subject of a takeover or if the founding Johnson family were to make a run for the entire company. We believe that Franklin represents an attractive target for a financial services firm given its well established brands, favorable long-term investment track record,

Franklin Resources, Inc.

and robust global distribution. Moreover, the Johnson family's ~40% stake, coupled with BEN's strong balance sheet, could help facilitate a management buyout.

Risks

The Company's primary risks include, but are not limited to, the following:

- Outflows of assets from the Company's investment strategies could pressure operating results and adversely impact BEN's valuation.
- The prospect that the Company's primary value-oriented investment strategy remains out of favor for an extended period.
- Ongoing industry fee pressure as assets continue to migrate from active managers to low-cost passive strategies.
- Unfavorable regulation could have an adverse impact on the distribution of the Company's products.
- Poor investment performance associated with the Company's key investment strategies.
- Prospects for future M&A activity could destroy value if BEN is not able to properly integrate acquisitions.
- BEN's various growth initiatives, including liquid alternatives, ETFs, and smart beta investment strategies, could fall short of expectations.
- The prospect for unfavorable corporate governance policies by the controlling Johnson family.
- The loss of key investment personnel or investment teams, which could potentially negatively impact the Company's AUM. Indeed, the recent "retirement" of emerging markets guru Mark Mobius, who has since started his own firm, could have an adverse impact on the Company's AUM.

Analyst Certification

Asset Analysis Focus certifies that the views expressed in this report accurately reflect the personal views of our analysts about the subject securities and issuers mentioned. We also certify that no part of our analysts' compensation was, is, or will be, directly or indirectly, related to the specific views expressed in this report.

FRANKLIN RESOURCES, INC.
CONSOLIDATED BALANCE SHEETS
(Unaudited; in millions, except share and per share data)

ASSETS	March 31, 2018	September 30, 2017
Cash and cash equivalents	\$8,545.4	\$8,523.3
Receivables	765.4	767.8
Investments (including \$449.5 and \$440.0 at fair value at March 31, 2018 and September 30, 2017)	1,579.0	1,393.6
Assets of consolidated investment products		
Cash and cash equivalents	181.1	226.4
Receivables	133.6	234.1
Investments, at fair value	3,529.3	3,467.4
Property and equipment, net	517.7	517.2
Goodwill and other intangible assets, net	2,242.3	2,227.7
Other	196.2	176.5
TOTAL ASSETS	\$17,690.0	\$17,534.0
LIABILITIES		
Compensation and benefits	\$291.7	\$396.6
Accounts payable and accrued expenses	194.6	167.4
Dividends	1,763.7	113.3
Commissions	310.7	313.3
Income taxes	1,178.3	74.7
Debt	1,044.8	1,044.2
Liabilities of consolidated investment products		
Accounts payable and accrued expenses	67.9	124.1
Debt	34.0	53.4
Deferred taxes	129.9	170.6
Other	187.8	198.7
<i>Total liabilities</i>	5,203.4	2,656.3
Commitments and Contingencies (Note 10)		
Redeemable Noncontrolling Interests	2,084.4	1,941.9
Stockholders' Equity		
Preferred stock, \$1.00 par value, 1,000,000 shares authorized; none issued	—	—
Common stock, \$0.10 par value, 1,000,000,000 shares authorized; 541,695,819 and 554,865,343 shares issued and outstanding at March 31, 2018 and September 30, 2017	54.2	55.5
Retained earnings	10,263.9	12,849.3
Accumulated other comprehensive loss	(259.7)	(284.8)
<i>Total Franklin Resources, Inc. stockholders' equity</i>	10,058.4	12,620.0
Nonredeemable noncontrolling interests	343.8	315.8
TOTAL STOCKHOLDERS' EQUITY	10,402.2	12,935.8
TOTAL LIABILITIES, REDEEMABLE NONCONTROLLING INTERESTS AND STOCKHOLDERS' EQUITY	\$17,690.0	\$17,534.0

SunOpta Inc.

NASDAQ: STKL; TSX: SOY

GICS Sector: Consumer Staples
February 1, 2018

Dow Jones Indus:	26,186.71
S&P 500:	2,821.98
Russel 2000:	1,579.87
Index Component:	N/A



Capitalization and Trading Multiples (\$MM)

Share Price	\$7.20		2014	2015	2016
Diluted Shares (MM)*	97.9	EV/EBITDA	19.5x	12.3x	14.6x
Market Cap	\$705	P/E	18.9x	20.0x	N/M
Debt	\$490	P/FCF	N/M	N/M	N/M
Cash	\$(3)	EV/Sales	1.1x	1.0x	0.9x
Enterprise Value	\$1,192	Price/Book	2.1x	1.7x	1.9x

Trading Statistics

Dividend Rate	N/A	Avg. Daily Volume (3mo) (MM)	0.3
Dividend Yield	N/A	Short % of Float	2.7%
Payout Ratio	N/A		

	High	Low
52-Week	\$10.20	\$6.10
5-Year	\$14.16	\$3.27

Valuation

Intrinsic Value	\$12	Time Horizon	2020
Implied Upside	65%		
Hidden Assets	No		
Description			

Share Ownership

	Economic
Oaktree Capital	~20%
Morgan Stanley	9%
Engaged Capital	8%
UBS	7%

*Assumes conversion of preferred stock

Clients of Boyar Asset Management, Inc. do not own shares of SunOpta Inc. common stock.

Analysts employed by Boyar's Intrinsic Value Research LLC do not own shares of SunOpta Inc. common stock.

AAF History

Report Type	New Idea
Initially Probed	
Last Probed	
Trigger	
Situation	Business Value

Selected Financial Summary (\$MM)

	2014	2015	2016	TTM
Revenues:	\$1,103	\$1,145	\$1,347	\$1,285
Operating Income	\$42	\$21	\$15	\$N/M
Margin (%)	3.8%	1.9%	1.1%	N/M
Adj. EBITDA	\$61	\$97	\$82	\$75
Margin (%)	5.6%	8.4%	6.1%	5.9%
Capex	18	31	23	30
Capex (% of Revenues)	1.6%	2.7%	1.7%	2.4%
Free Cash Flow	N/M	N/M	N/M	N/M
FCF Yield (%)	N/M	N/M	N/M	N/M
Net Debt/EBITDA	1.2x	5.0	5.3	6.5
Share Repurchases (MM)	0.0	0.0	0.0	0.0
EPS	0.38	0.36	0.07	0.23

Fiscal Year End: December

Overview

SunOpta Inc. ("SunOpta," "STKL," or "the Company") is a global company focused on sourcing organic and non-GMO (non-genetically modified) ingredients and manufacturing healthy food and beverage products. During 2016, the Company generated \$1.3 billion in revenues from its two primary segments: global ingredients (43%) and consumer products (57%). The Company's global ingredients business sources and sells specialty and organic grains and seeds, raw material ingredients, value-added grain- and cocoa-based ingredients, and organic commodities. The consumer products segment, which relies on the sourcing capabilities of the global ingredients segment, consists of three main commercial platforms: healthy beverages (aseptic packaged products, including non-dairy and dairy beverages, broths and teas, refrigerated premium juices, shelf-stable juices, and functional waters), healthy fruit (individually quick-frozen, or "IQF," fruits for retail and foodservice and custom fruit preparations for industrial use), and healthy snacks (fruit snacks and a variety of roasted snacks, including sunflower, corn, chickpeas, etc.). The Company's consumer products are sold under

SunOpta Inc.

various private label banners as well as SunOpta's own brands (Sunrich Naturals, Nature's Finest, and Pure Nature).

In our view, both of SunOpta's business segments should benefit from the powerful tailwind of consumers' heightened focus on health and wellness. In the U.S., the market for organic (~\$43 billion) and non-GMO labeled (~\$24.3 billion) food is growing rapidly (high single-digit/low teens % rate), and these growth rates are expected for the foreseeable future. The increasingly important millennial generation is expected to be a key factor sustaining future industry growth, as millennial parents are the largest purchasers of organic products in the U.S. In addition, with millennials less concerned about brand names than members of prior generations are, SunOpta's private label business (constituting a large portion of its consumer products segment sales) should be a primary beneficiary. It is also worth noting that healthy/natural products have a 3x greater share of sales made online.

SunOpta is in the early stages of a multi-year turnaround that is expected to drive growth, increase profitability, and unlock shareholder value. Having been cobbled together by some 37 acquisitions just since 1999, and run largely as a holding company rather than an integrated operating company, SunOpta has been plagued by frequent operational/execution issues, including product recalls and late/missed deliveries. After being prodded by an activist investor in 2016, SunOpta has embarked on a formal plan to boost shareholder value. As part of this plan, initially communicated in late 2016, the Company has secured an investment from Oaktree Capital, which has overseen the installation of new management with a proven track record of executing operational turnarounds in the packaged foods industry. Notably, SunOpta CEO David Colo, who took the reins in early 2017, was most recently responsible for the operational turnaround at Diamond Foods (as chief operating officer), which was sold to Snyder's-Lance in 2016. Meanwhile, SunOpta chairman and Oaktree board appointee Dean Hollis recently oversaw the significant value creation at AdvancePierre Foods, which Oaktree called one of the "standout" investments in its 22-year history (AdvancePierre was a 23-bagger.) Early results of the turnaround plan are encouraging, and the Company is progressing toward achieving \$31 million in annual EBITDA benefits as a result of various actions (~\$10 million achieved in 2017). The profitability initiatives and ~\$20 million realized from working capital improvements during 2017 are being reinvested in the business to provide a solid foundation for future growth and continued profitability improvement.

We acknowledge that an investment in SunOpta is not for the faint of heart, with the Company's current leverage ratio (net debt/EBITDA) of 6.5x as of September 2017. However, a number of items give us comfort in this situation, including a favorable debt maturity schedule (no maturities until 2021); the presence of a well-regarded investor (Oaktree) that has made meaningful open market purchases following its initial \$85 million preferred investment (8.1 million shares purchased on the open market during 2017 at an average price of \$7.36 a share), which gave it an ~20% stake in the Company; and the installation of new management with a meaningful equity incentive that has a proven track record of executing turnarounds in the packaged foods industry, favorable industry growth characteristics, and oversight by a number of activist investors. At current levels, STKL shares are down about 30% from recent 52-week highs. We believe that the share price decline is due, in part, to forced selling by one of the Company's activist investors and the poor performance experienced at present by Canadian-listed companies (major indices at 4-month low) due to commodity price pressures. (STKL is listed on both the NASDAQ and the Toronto Stock Exchange, or TSX.)

We believe that SunOpta is well positioned in an attractive industry and that its vertically integrated operations will serve it extremely well going forward, especially where industry demand for organic/non-GMO products is well in excess of current supply. SunOpta's sourcing capabilities, which have been built on long-term relationships with growers (up to 30 years), bode well for the Company given the likely increased demand for these ingredients from its customers as well as its consumer products ambitions. The value of access to these ingredients should not be overlooked given the long approval process involved in garnering organic certifications (~3 years for farms). Based on our projections, we believe that SunOpta has the potential to generate \$150-\$200 million of EBITDA on a longer-term basis. Applying a discounted multiple, relative to precedent transactions, to this earnings power, we derive an intrinsic value of \$12 a share, representing 65% upside from current levels. We note that management is heavily incentivized to unlock shareholder value and that CEO Colo has been granted significant long-term equity incentives, including ~750k of performance-based stock options/units that vest at various increments/stock prices between \$11 and \$18 a share. Accordingly, we would not be surprised if shares surpassed our objective by a wide margin. SunOpta is not widely followed on Wall Street, having no major sell-side firms covering its shares (and only 3 firms total). However, we believe that shares will likely garner increased investor attention as the Company's turnaround continues to gain traction.

SunOpta Inc.

History

SunOpta was founded in 1973 in Ontario, Canada, and was originally known as Stake Technology Ltd. Stake held patented technology that converted forestry byproducts (wood chips, corn stalks, and straw) from low-grade wasted biomass into usable products. The Company’s first commercial venture was its proprietary “steam explosion” technology that converted hardwood trees into food for cattle, sheep, and goats. Stake’s marketing material at that time proclaimed that “trees are really only tall grass,” and the company believed that its product replaced the traditional use of corn, hay, and potatoes as roughage additives for livestock diets. In 1980, with assistance from the Canadian government, Stake established its first commercial biomass conversion plant in Maine.

Stake’s foray into the food industry began in 1999, when it acquired Sunrich Inc., a supplier of specialty grains and premium food ingredients to major food producers. Sunrich, which had about \$30 million in sales in 1998, had a product line that included non-GMO, organic, and identity-preserved varieties of corn and soybeans, soy powders and concentrates, and organic starches. Subsequent to the Sunrich acquisition, the Company would embark on an aggressive acquisition spree that bolstered its presence in the natural and organic foods industry. In 2002, Stake acquired Opta Food Ingredients, which was located in Bedford, Massachusetts, and was a supplier of food ingredients to more than 350 food companies, including 12 of the largest U.S. consumer packaged food companies and 3 of the world’s largest QSR restaurant chains. In 2003, the Company changed its name to SunOpta, combining the names of the SunRich Food Group and Opta Food Ingredients. Commenting on the name change, Jeremy Kendall, SunOpta’s chairman/CEO at the time, stated, “We believe the name SunOpta reflects our environmental and organic commitment to products nourished in the ‘sun’ with ‘optimal’ nutritional value and environmental responsibility. The inclusion of ‘Technology’ in our name is no longer appropriate to our focus in the growing integrated natural and organic food business.” In total, some 37 transactions were completed between 1999 and 2015. The following table summarizes several key transactions. (Businesses that were acquired but subsequently divested are not included.)

<u>Date of Acquisition</u>	<u>Business Operations Acquired</u>	<u>Reportable Segment</u>
August 3, 1999	Sunrich Inc.	Global ingredients
August 15, 2000	Certain assets of Hoffman Aseptic	Consumer products
September 18, 2000	Northern Food and Dairy, Inc.	Consumer products/ global ingredients
March 14, 2001	First Light Foods Inc.	Consumer products
May 8, 2003	Kettle Valley Dried Fruit Ltd.	Consumer products
November 1, 2003	SIGCO Sun Products, Inc.	Global ingredients
December 1, 2003	Sonne Labs, Inc.	Global ingredients
September 13, 2004	51% of the outstanding shares of Organic Ingredients, Inc. (remaining 49% of the outstanding shares were acquired on April 5, 2005)	Consumer products
June 2, 2005	Earthwise Processors, LLC	Global ingredients
June 20, 2005	Cleugh’s Frozen Foods, Inc.	Consumer products
July 13, 2005	Pacific Fruit Processors, Inc.	Consumer products
November 7, 2006	Hess Food Group LLC	Consumer products
April 2, 2008	The Organic Corporation	Global ingredients
November 8, 2010	Dahlgren & Company, Inc.	Global ingredients
December 14, 2010	Assets of Edner of Nevada, Inc.	Consumer products
August 5, 2011	Assets of Lorton’s Fresh Squeezed Juices, Inc.	Consumer products
December 31, 2012	Organic Land Corporation OOD	Global ingredients
March 2, 2015	Citrusource, LLC	Consumer products
August 11, 2015	Assets of Niagara Natural Fruit Snack Company Inc.	Consumer products
October 9, 2015	Sunrise Holdings (Delaware), Inc.	Consumer products

SunOpta Inc.

During 2015, SunOpta completed its largest acquisition to date when it acquired Sunrise Growers for \$473 million, representing a transactional multiple of 11.5x EBITDA (~9x post synergies). The all-cash transaction was financed by borrowing and by the proceeds of a nearly \$100 million equity offering (16.7 million shares at ~\$6 a share). The Sunrise acquisition expanded the Company's presence in the rapidly growing frozen fruit category, as Sunrise is a leading supplier of private label domestic and imported conventional and organic frozen fruit. The two other acquisitions completed in 2015, Niagara Natural Fruit Snack Company and Citrusource, also bolstered the Company's consumer products business. As a result of the acquisitions completed in 2015, revenues from consumer products surpassed 50% for the first time. In 2016, the Company sold its Opta Minerals business, a move that positioned SunOpta as a pure play foods company.

SunOpta maintains its corporate headquarters in Ontario, Canada, and its shares are dual-listed, trading in U.S. dollars on the NASDAQ, under the symbol STKL, and in Canadian dollars on the TSX, under the ticker SOY. The Company reports its results in the U.S. dollars, in accordance with U.S. GAAP.

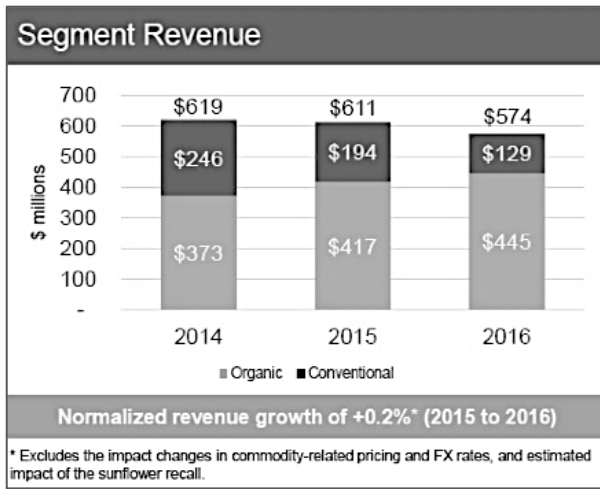
Business Description

SunOpta is a leading global company focused on organic, non-GMO, and specialty foods. SunOpta specializes in the sourcing, processing, and packaging of organic and non-GMO food products, integrated from seed through packaged products. The Company's integrated "field to table" business model involves the sourcing of raw materials in 65 countries from a network of 5,000 suppliers that encompasses approximately 10,000 growers. SunOpta is believed to possess the world's largest vertically integrated organic raw material supply chain. A key competitive advantage of the Company comes in the form of the long-term relationships it has maintained with its growers/suppliers, many of which have existed for over 25 years. These relationships have enabled SunOpta to enter into exclusive agreements with growers and/or processors of key strategic commodities to control the reliability of its supply chain. In addition, SunOpta also leases certain farmland that it subleases to fruit growers helping to ensure access to key inputs. SunOpta transforms the inputs it sources into ingredients and consumer products for its 3,300 global customers via its 21 manufacturing operations. The Company's sourcing capabilities coupled with its processing and packaging capabilities provides the consumer products segment with a low-cost advantage over its peers.

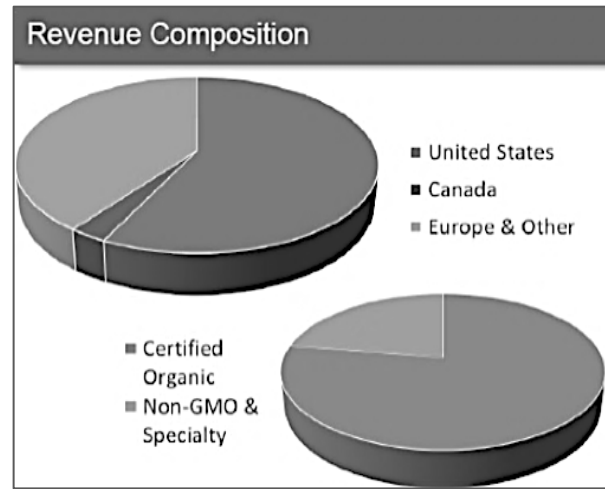
SunOpta's two primary business segments, global ingredients and consumer products, generated \$1.3 billion of revenues during 2016. The Company generated 81% of its 2016 revenues from the U.S., with Canada (2%) and Europe and other (17%) making up the balance. SunOpta's largest customer was Costco, which accounted for 11% of its consolidated revenues in 2016 (19% of consumer products segment revenues). However, Costco moved its private label non-dairy aseptic beverage business to another supplier during 2017, a business that had represented about 3% of consolidated revenues (4% of the consumer products segment revenue). The Company's products are sold by a number of widely recognizable retailers, including Whole Foods, Starbucks, and Amazon.

- **Global Ingredients (43% of 2016 revenues):** The global ingredients segment sources a variety of products, including organic fruit- and vegetable-based raw materials and ingredients; sweeteners; cocoa; coffees; ancient grains; nuts, seeds, and pulses; and other organic food products. The Company also sources identity-preserved (IP), non-GMO, and organic seeds and grains, including soy, corn, and sunflower, for food applications. SunOpta maintains control at every stage of production, from seed selection and growing to storage, processing, and transportation. SunOpta also sources seed- and grain-based animal and pet food products that are derived from select organic inputs (soy, corn, sunflower, etc.). The global ingredients segment is also involved in various processing and contract manufacturing services. SunOpta derives slightly over 50% of its global ingredients revenue from the U.S., with the balance derived from Europe & other and from Canada. Approximately 75% of segment revenues are derived from certified organic inputs, with ~25% coming from non-GMO and specialty.

Global Ingredients Segment Summary



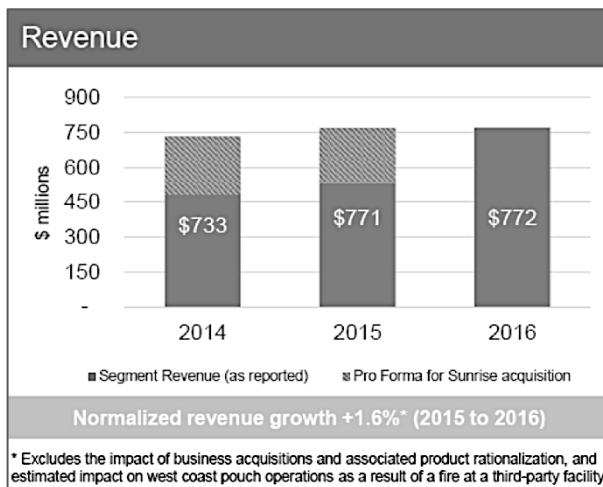
Source: Company presentation, November 2017



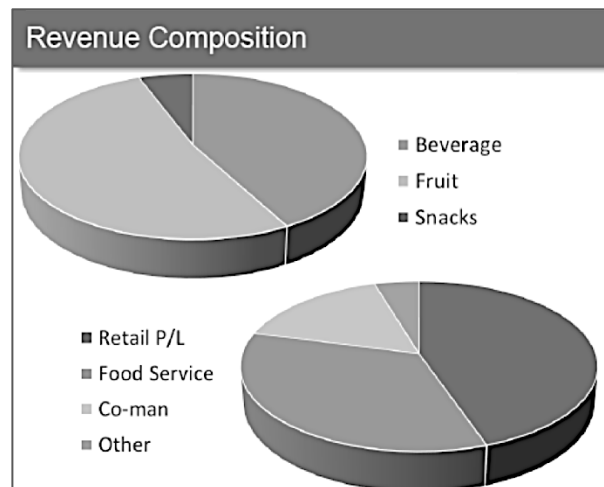
Source: Company presentation, January 2018

- Consumer Products (57% of 2016 revenues):** The Consumer products segment provides healthy and organic food products that are primarily consumer-packaged to retailers, foodservice distributors, and major global manufacturers with a variety of branded and private label products. The Company's key brands include Sunrich Naturals, Nature's Finest, and Pure Nature, while SunOpta's private labels brands are sold under a variety of banners. The Company has three main commercial platforms within its consumer products segment: healthy beverages, healthy fruit, and healthy snacks.

Consumer Products Segment Summary



Source: Company presentation, November 2017



- Healthy Beverages (~30% of segment revenues):** Specializes in aseptic (processing that makes products safe and stable without preservatives) product offerings, including beverages (soy, almond, rice, coconut) and other non-dairy and alternative beverages, as well as adjacent categories such as organic dairy and nutritional beverages, including milk, broths, and teas. Beverage products also include shelf-stable and refrigerated juices, specialty beverages, vitamin and electrolyte waters, and energy drinks. One category worth highlighting is orange juice, where SunOpta currently has an ~15% share of the private label market in North America.
- Healthy Fruit (~60%):** Includes IQF natural and organic frozen fruits and vegetables (strawberries, blueberries, raspberries, broccoli, etc.). The healthy fruit business also includes specialty fruit toppings and bases, which are custom formulated to provide unique flavor and

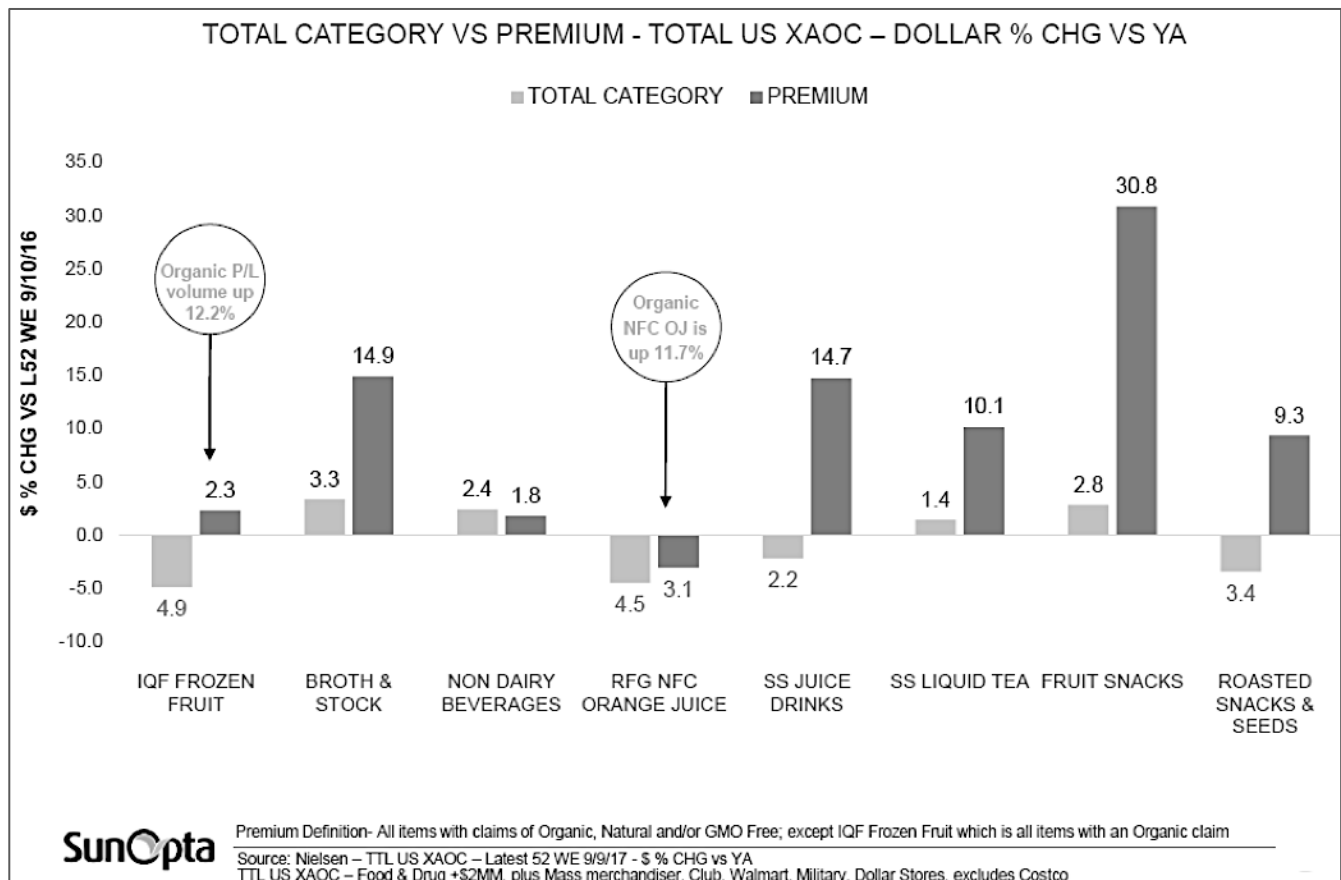
SunOpta Inc.

texture profiles for a wide range of specialized applications, including fruit bases for yogurts, ice creams, smoothies, bakery fillings, etc. SunOpta is currently the largest IQF store brand manufacturer, with a 60% market share. Despite this outsized market share, there is ample opportunity for future growth, because household penetration for frozen fruit stands at just 30%, compared with 89% for frozen vegetables.

- **Healthy Snacks (~10%):** Following the Company's 2017 exit of its flexible resealable pouch products (~\$46 million in annual revenues) and nutrition bars operations (~\$13 million), its healthy snacks portfolio consists of fruit snacks (bars, twists, ropes, and bite-sized varieties) and roasted snacks. It should be noted that the overall healthy snack category boasts the highest growth rate within the food industry.

Consumer products with claims of healthy, natural, organic, and non-GMO are classified as "premium" products within categories and are the types of products produced by SunOpta's consumer products' segment. As illustrated hereafter, the premium category in which SunOpta operates is growing significantly faster than industry averages.

SunOpta's Consumer Products Segment Positioned in Fast-Growing Categories

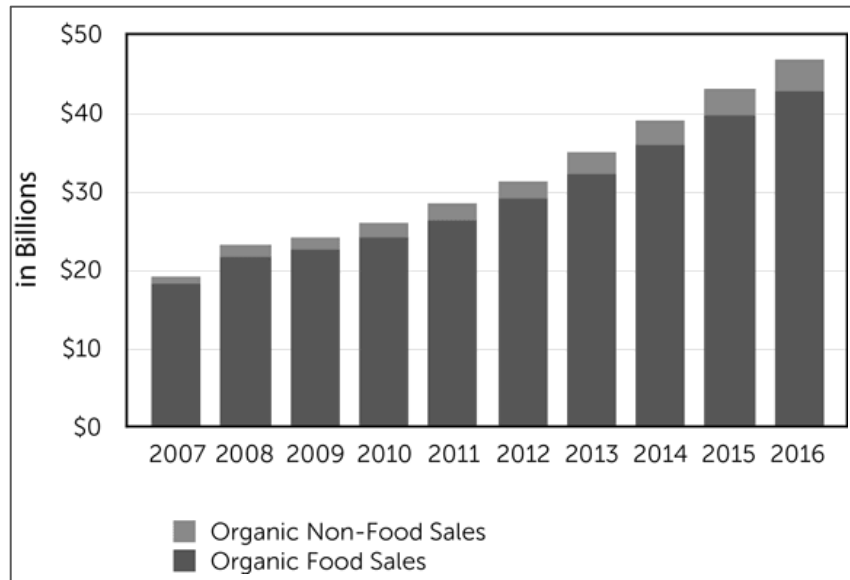


Source: Company presentation, November 2017

Organic and Natural Foods Industry Market Overview

In 2016, the Organic Trade Association estimated U.S. organic retail sales at approximately \$47 billion, with approximately \$43 billion coming from organic food sales. Organic retail sales in the U.S. have generally experienced double-digit growth during most years since 2000, when the USDA set national organic standards. Organic food, which increased at an 8.4% growth rate during 2016, now represents about 5.3% of total retail food sales in the U.S., a market share figure that trails those seen in other leading consumers of organic food. For example, during 2014, the organic market share in Denmark and Switzerland was 7.6% and 7.1%, respectively.

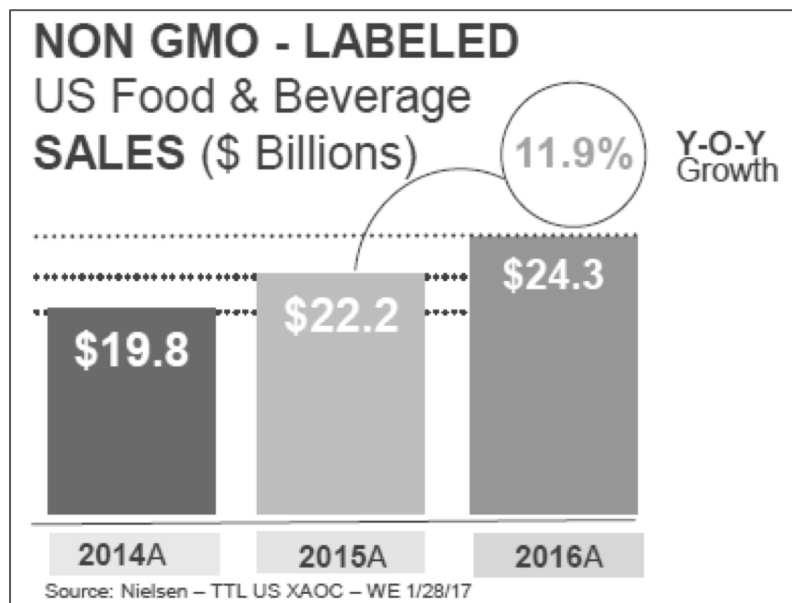
Total U.S. Organic Sales and Growth, 2007-2016 (\$B)



Source: The Organic Trade Association

The natural foods (non-GMO) industry is much larger, and in 2014 it represented about \$200 billion of sales at retail, a figure expected to reach \$330 billion by the end of 2019. During 2016, sales of food and beverage products specifically labeled as non-GMO increased at an 11.9% growth rate to \$24.3 billion.

Non-GMO Labeled Food & Beverage Sales



Source: Nielsen – TTL US XAOC – WE 1/28/17

Source: Company presentation, January 2018

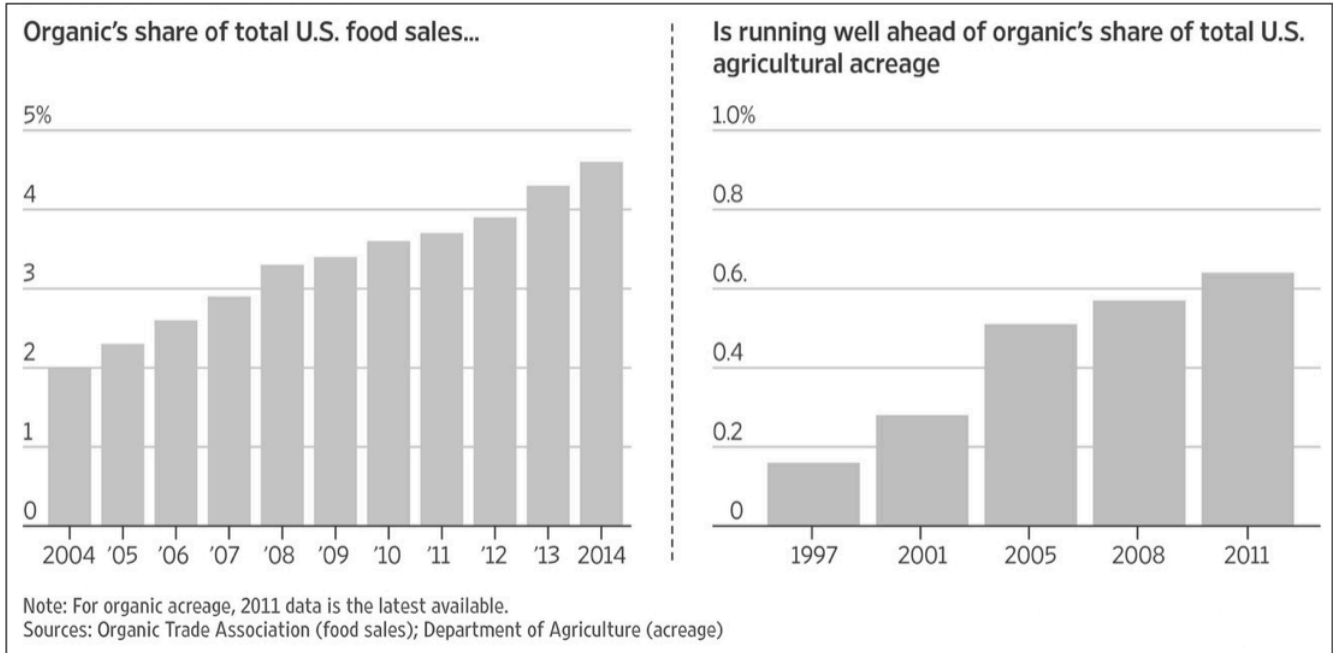
Millennial Consumers Likely to Sustain Organic Industry Growth

Consumers' increased awareness of the benefits of a healthy lifestyle, especially among the millennial generation, should help to sustain the strong growth rate experienced by organic and natural products. One of the industry's challenges is keeping up with the pace of organic demand, as the amount of farmland dedicated to organic products is well below the current demand. Nevertheless, the premiums garnered by farmers of organic products, despite the lower yields, are enticing farmers to convert their farms to organic, a process that takes 3 years. The fact that 81% of consumers are willing to pay more for products that are healthier or that contain natural

SunOpta Inc.

or organic ingredients, according to data from NPD, should also help encourage farmers to make the conversion to organic farms.

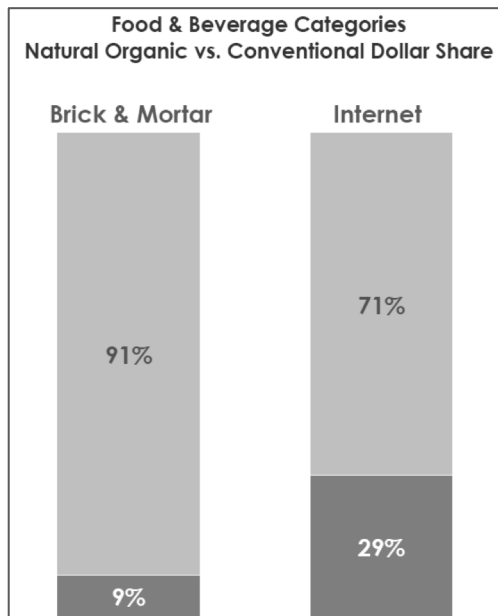
Organic Food Sales Share Outpacing Organic Share of Agriculture Acreage



Source: *The Wall Street Journal*, July 12, 2015

Millennial parents are the largest group of organic purchasers in the U.S., with 52% of millennial parents buying organic products. Millennial parents also over-index, compared to older generations, in stating that choosing organic products is an integral part of living green. It is interesting to note that natural and organic products have a 3x greater share online, which may be one of the motivations for Amazon's recent purchase of Whole Foods.

Natural Organic Products Have Strong Online Market Share



Source: Hain Celestial presentation, September 2017

Recent Developments

Although the Company's multiple acquisitions over the years have positioned it as a primary beneficiary of the favorable trends within the organic and non-GMO food industry, the Company has not been able to fully take advantage of industry tailwinds, as the business has faced numerous execution issues. A key contributor to the execution issues has been SunOpta's having historically been run as a holding company and its businesses' having never been fully integrated into a unified company. As a result, according to SunOpta, there had never been any accountability among, or proper incentives for, its executives. The Company's operations were characterized by low capacity utilization at key facilities, which resulted in SunOpta's delivering profitability levels that have trailed those of its industry peers by a wide margin. (SunOpta's 2016 adjusted EBITDA margin of 6% trails industry peers by ~300 bps.) The Company's poor performance and various operational missteps (product recalls, late deliveries, etc.) ultimately caught the attention of several activist investors and prompted the Company to pursue strategic alternatives.

Activist Target and Strategic Alternatives

SunOpta's growth potential, coupled with its operational and capital allocation missteps, attracted the attention of activist investor Tourbillon Capital, which had established an ~10% position in STKL shares in 2016. Tourbillon implored the Company to pursue value-enhancing initiatives such as a sale of the Company in light of its view that the Company operations remained underoptimized, with revenue growth and profitability well below industry averages. SunOpta's revenue growth since 2011 (of 7% with acquisitions) was well below the industry's 13% growth, while its then 6% EBITDA margin was well below the levels of its industry peers. In a letter to SunOpta's board dated May 27, 2016, Tourbillon stated:

"It remains our firm belief that if the Company were to fix its operational missteps, refocus and reprioritize its sales efforts, and effectively deploy capital, the Company would be worth several times what it is worth today. According to the plan that management laid out in April 2016, the Company should earn close to \$0.80 of EPS in 24-36 months. Furthermore, based on our due diligence, if the Company is able to correct the operational issues entirely under its control – underutilization, cost of nonperformance, low yields, etc. – we believe that SunOpta can earn over \$1.60 of EPS over the same time period. At the current price, SunOpta shares would be trading at 4.8x and 2.4x earnings, respectively, while peers trade around 20x earnings."

The pressure from the activist investor prompted the Company to announce its decision to explore strategic alternatives in June 2016. In October 2016, 3½ months after it had begun to evaluate alternatives with the help of advisors, the Company announced that it had entered into a partnership with Oaktree Capital, securing an \$85 million preferred investment from that firm that was used to pay down debt. In addition, SunOpta agreed to add three new board members, among them two Oaktree appointees, Dean Hollis and Dr. Albert Bolles, both of whom boast meaningful experience with packaged foods companies. The third new board member, Brendan Springstubb, is from Engaged Capital, another activist shareholder that targeted the Company during its strategic review process. A third activist, West Face Capital, which is based in Canada, also targeted SunOpta during its strategic review process and was believed to be poised to push for board and management changes if SunOpta failed to sell itself.

Oaktree Partnership: They've Seen This Movie Before

Oaktree has a successful track record in the food industry, and investments have included AdvancePierre Foods, Campofrio Food Group, and Diamond Foods. Notably, the sale of AdvancePierre Foods to Tyson for \$4.2 billion in 2017 enabled Oaktree to earn 23 times its invested capital. Oaktree, which is led by legendary investor Howard Marks, labeled the AdvancePierre investment a "standout" in the firm's 22-year history. It should also be noted that Dean Hollis, who was recently appointed to the SunOpta board by Oaktree (Hollis became chairman of SunOpta shortly after joining the Company's board), oversaw the significant value creation at AdvancePierre Foods for Oaktree while serving as AdvancePierre's chairman. In announcing the SunOpta partnership with Oaktree, Dean Hollis stated:

"During Oaktree's due diligence, it became apparent that SunOpta is in the right space with the right assets to build a highly profitable sustainable platform capitalizing on the favorable industry dynamics, growth of private label solutions and the Company's deep global sourcing capabilities. However, the investments in capital and acquisitions intended to reposition the

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Company over the last couple of years, while strategically valuable, have clearly strained the operational resources, causing SunOpta to be undervalued in the market today. This Partnership with Oaktree provides SunOpta with key strategic, operational and financial resources support and flexibility that will accelerate this company’s value enhancing initiatives to the benefit of all shareholders and position the company for long-term sustainable success.”

In addition to Oaktree’s preferred investment (which is convertible into 11.3 million STKL shares at a price of \$7.50 a share), Oaktree has purchased shares of STKL on the open market. Oaktree was granted the right to purchase up to 3 million shares pursuant to the terms of its preferred investment (3 million shares purchased at an average cost of \$6.90 a share in March 2017), but it received approval in 2017 to purchase additional shares of SunOpta stock (beyond the 3 million specified in its agreement with SunOpta) after petitioning the board. During 2017, Oaktree deployed nearly ~\$60 million in the acquisition of 8.1 million shares of SunOpta on the open market at a price of \$7.36 a share, increasing its stake in SunOpta to ~20%, up from ~11% (assumes conversion of preferred stock). It should be noted that Oaktree acquired 3.7 million shares in December 2017 from Tourbillon. (We estimate that Tourbillon owns ~5% of the outstanding STKL following the sale to Oaktree.) We would point out that Tourbillon is believed to have delivered poor investment performance during 2017 (down over 10% on a year-to-date basis through November 2017) given its negative outlook for the so-called FAANG stocks where it had placed short bets. Given Oaktree’s keen eye for value in the food industry, we believe that its investment and involvement should not be overlooked. During SunOpta’s 3Q 2016 earnings call, Dean Hollis stated, “I have done numerous and successful transformations in my career, and I am more excited and more confident in the long-term value creation of SunOpta than perhaps [at] any other time in my career.” In light of the 23-bagger that Dean Hollis presided over while at AdvancePierre, investors might be wise to take notice.

Oaktree: Open Market Purchase Summary

<u>Date</u>	<u>Shares (MM)</u>	<u>Cost</u>	<u>Amount (\$MM)</u>
3/3-6/2017	3.0	\$6.90	\$20.7
5/12/2017	1.4	\$8.00	\$11.2
12/15/2017	<u>3.7</u>	<u>\$7.50</u>	<u>\$27.8</u>
Total:	8.1		\$59.6
	Avg. Cost:	\$7.36	

Value Creation Plan

In November 2016, SunOpta formally unveiled its value creation plan, intended to unlock long-term shareholder value. In announcing the plan, Kathy Houde, a SunOpta director who had been serving as the Company’s interim CEO, stated, “The successful implementation of the value creation plan will deliver value for all stakeholders. For our customers, it will lead us to the most trusted reliable supplier of natural and organic ingredients as well as private label solutions supported by timely and on trend innovation.” The value creation plan is supported by four key pillars: portfolio optimization, operational excellence, go-to-market effectiveness, and process sustainability. The following provides merely a summary of the plan’s key highlights; we provide a closer look at the value creation plan, its timeline, and its progress to date in the following section.

Four Pillars of SunOpta’s Value Creation Plan



Source: Company presentation, January 2018

New Management Instituted to Oversee Value Creation Plan

“We will make decisions with a long-term focus, even if those decisions do not maximize near-term earnings.”

– David Colo, SunOpta CEO, 4Q 2016 earnings call

In February 2017, David Colo was appointed to serve as CEO of SunOpta. Mr. Colo is an experienced food industry executive (~30 years in general management, operations and supply chain management) who most recently served as chief operating officer of Diamond Foods in a similar turnaround situation that was also another Oaktree investment (Diamond Foods was sold to Snyder’s Lance in 2016 for \$1.9 billion.) It should be noted that Mr. Colo’s food industry experience includes turnarounds in both packaged and food ingredients companies. In addition to Mr. Colo, a number of key positions have been changed out as part of an upgrading of talent at all functions and all levels of the Company. Over the past year, SunOpta’s base of salaried employees has risen to 550, up from 500 (out of ~2,000 total). Notably, 350 of the 550 salaried positions have been filled by new individuals.

Mr. Colo has a meaningful equity incentive to see through a successful turnaround of SunOpta. Among Mr. Colo’s equity awards are 474k performance-based stock options (special stock options) and 278k performance stock units (special stock units). Mr. Colo also has 150k of restricted stock units, 50k of which he received after purchasing \$1 million worth of shares on the open market during 2017 (145k shares were purchased in March 2017 at an average price of \$7.06 a share). Notably, the vesting of the special stock options and special stock units is subject to stock price performance conditions during the 3-year period ending February 6, 2020. A third of these awards vest upon achieving an \$11.00 stock price, a third upon achieving a \$14 stock price, and a third upon achieving a stock price of \$18.00.

A Closer Look at the Value Creation Plan

In addition to providing a solid foundation for future growth, SunOpta’s value creation plan aims to address a whole range of issues that have previously plagued the company (quality control, fill rates, on-time deliveries,

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etc.). The plan is also expected to generate a meaningful amount of near-term financial benefits, including \$31 million in annual EBITDA enhancements and \$20 million in working capital improvements. The Company has initially targeted realizing \$10 million of annual savings in 2017 and the remainder (\$21 million) in 2018, derived from a number of different areas, including manufacturing, procurement, and logistics. The \$20 million in working capital benefits is expected to be realized during 2017. The savings the Company generates in the near term will be reinvested in the business.

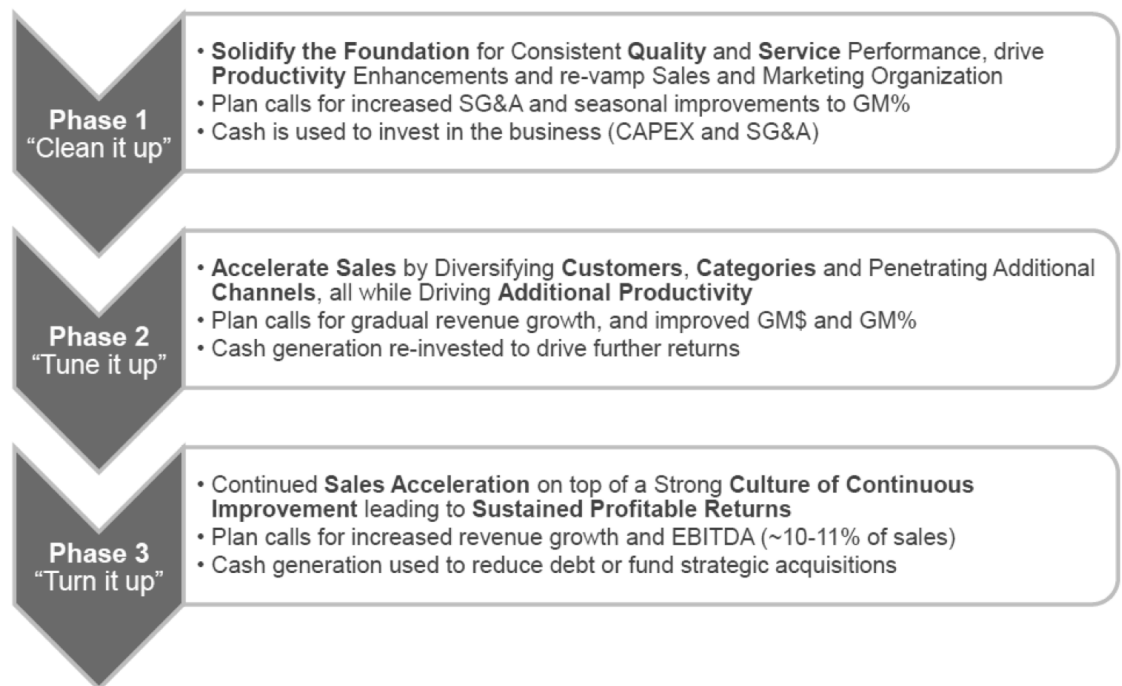
SunOpta: Portfolio Actions to Date (\$MM)

(\$millions)	Identified	Implemented
Portfolio Optimization	6.6	6.0
Operational Excellence	23.0	5.3
Go-to-Market Effectiveness *	1.2	1.2
Process Sustainability	n/a	n/a
Total	30.8	12.5

Source: Company presentation, January 2018

Management expects to realize additional EBITDA improvements over time. The Company’s value creation plan is expected to be completed over three phases. Phase I is expected to last about 12-18 months, while phases II and III are expected to take up to 18-36 months to complete after the completion of phase I. During phase I, the emphasis will be on gross margin expansion, with sales growth likely to materialize during phases II and III. While the initial focus of the plan is on profitability improvement, management noted during its 3Q 2017 earnings call that it was having good success in building its pipeline of future sales opportunities.

Phased Approach to the Value Creation Plan

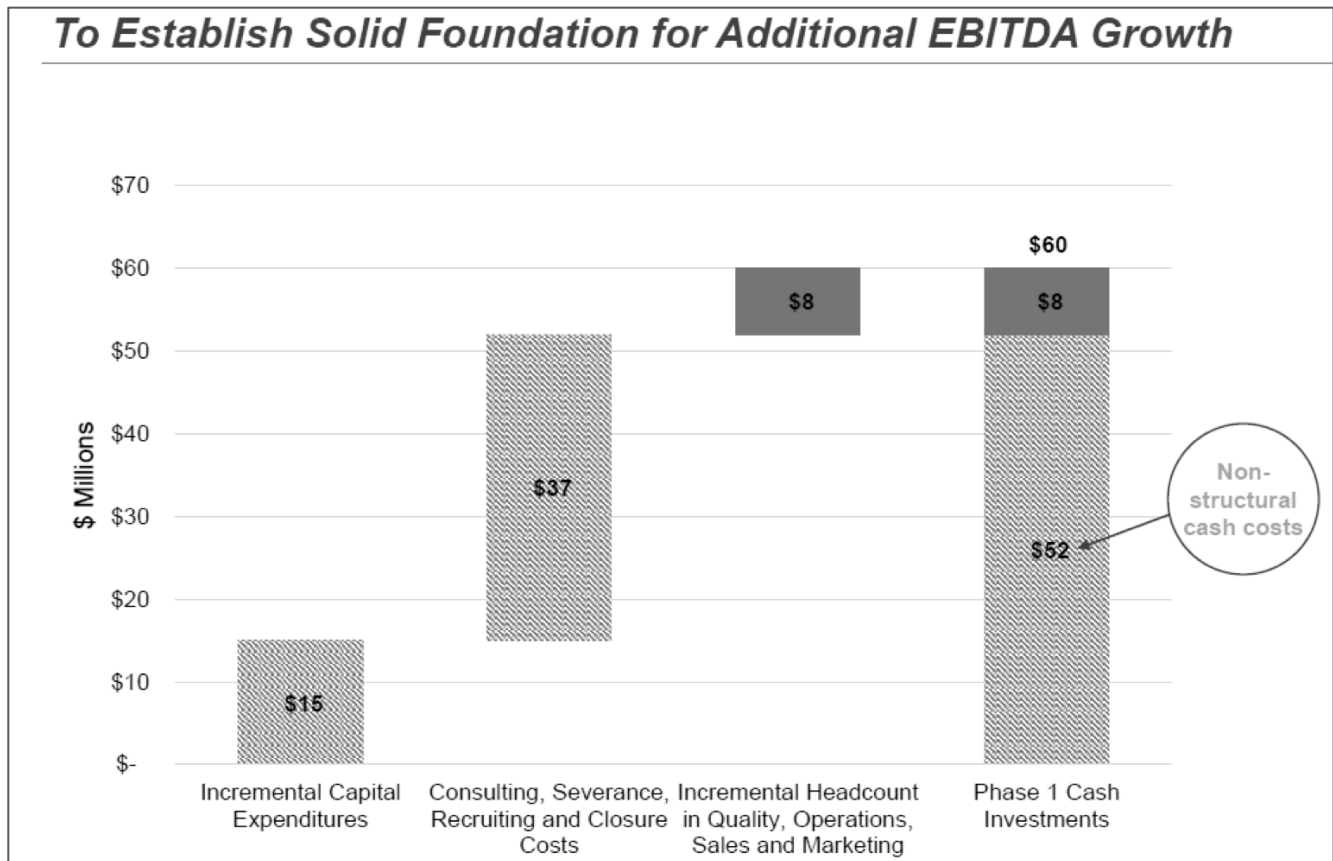


Source: Company presentation, January 2018

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During 2017, SunOpta expects to invest a total of \$60 million into its business, though just \$8 million will be in areas of recurring expenses, including sales, customer marketing, and engineering resources. The Company terms the remaining \$52 million as non-structural costs, such as incremental capital expenditures (~\$15 million), and a variety of one-time costs, including consulting, severance, recruiting, and plant closure costs, that are expected to be around \$37 million.

Planned Investment in 2017



Source: Company presentation, January 2018

Following are additional details about each of the four pillars of the value creation plan.

Portfolio Optimization

SunOpta has taken a variety of portfolio optimization actions as part of its value creation plan:

- Closed unprofitable juice facility in San Bernardino, California, and soy extraction facility in Heuvelton, New York. According to SunOpta, the San Bernardino closure is expected to provide a \$4 million annual boost to EBITDA, while the Heuvelton exit is expected to provide a \$500k boost to annual EBITDA.
- Exited certain varieties of specialty soy and sunflower, as well as a noncore vegetable brokerage operation.
- Announced the discontinuation of flexible re-sealable pouch products and the sale of related pouch assets closed in November 2017. Announced closure of the nutrition bars facility in Carson City, Nevada (substantially completed at the end of 2017). During 2016, the Company's re-sealable pouch and nutrition bar businesses generated \$46 million and \$13 million in revenues, respectively, but were a drag on profitability.
- Initiated plan to consolidate certain soy and specialty grain volume and close an underutilized facility to enhance facility utilization and reduce operating costs.

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- Purchased remaining 25% minority interest stake in Mexican frozen fruit operations and broke ground on new expansion.
- Approved plans to increase capabilities at sunflower operations in both North America and Europe, as well as to expand capacity at the specialty cocoa processing facility in the Netherlands.

Operational Excellence

SunOpta has also taken various operational excellence actions as part of its value creation plan:

- Enhanced food safety and quality across the manufacturing platform via the rollout of new processes and systems.
- Launched a productivity enhancement program that is systematically evaluating the Company's manufacturing facilities, supply chain, and procurement activities. SunOpta is targeting \$30 million of annualized EBITDA improvements and \$20 million of working capital cash flow enhancements.
- Launched "SunOpta 360," an initiative designed to establish a sustainable continuous improvement methodology by creating a zero waste culture and a mindset focused on driving long-term value creation. SunOpta 360 is initially being rolled out in the Company's aseptic beverage business but is expected to be rolled out across the entire company over time.
- Hired a new SVP of operations and engineering and upgraded plant management at numerous facilities.

Go-to-Market Effectiveness

SunOpta has also taken certain go-to-market effectiveness actions as part of its value creation plan:

- Activated a new food service distribution and sales brokerage network leveraging third parties, which will support the Company's plan to grow and diversify penetration into the food service channel.
- Created channel-dedicated sales teams to more effectively service customer needs and kicked off a strategic plan to penetrate specific retail and foodservice white spaces. (Previously, SunOpta's sales force had been organized by geographic region.)
- Hired a new chief customer officer in order to drive increased sales volume of consumer packaged products.
- Hired a new SVP of beverage and snacks and SVP of foodservices as well as new commercial talent in the areas of sales, marketing, and R&D.
- Strategically adjusted pricing for certain customer product offerings, driving expanded margins.
- Generated business wins with existing and new customers in existing and new categories across frozen fruit, healthy beverage, and global ingredients.

Process Sustainability

SunOpta has taken a range of process sustainability actions as part of its value creation plan:

- Appointed new leadership team, including a new CEO, COO for the packaged goods segment (in January 2018, SunOpta disclosed that Colin Smith, who had been serving as the COO of the consumer products segment, would no longer be serving in that role after accepting a new role at Oaktree Capital), CHRO, CIO, CQO, SVP of operations and engineering, SVP of supply chain, and chief customer officer. In addition, SunOpta has filled other management level positions in sales, marketing, engineering, operations, quality, and other functional support services.
- Centralized the consumer products supply chain team beneath a new SVP of supply chain with a view to managing sales and operations planning, warehousing, and distribution in the hope of reducing inventory while also improving customer service.

SunOpta Inc.

- Initiated several data foundations projects to improve the quality of the information utilized to run the business. Key areas of focus include product costing, inventory management, mast data governance, specification management, and KPI and functional reporting.

A Review of a Few Additional Growth Opportunities/Themes

- **Private Label:** In addition to being a big driver of purchases of organic goods, millennials are also likely to drive continued growth in private label products, as this generation is less brand-sensitive than prior generations. According to the Private Label Manufacturers Association, sales of store brands at big chains increased by 4.6% in 2016 compared with a 1.1% increase in national brands. In the U.S., private label market share in the consumer packaged goods industry has increased significantly over the past 25 years and now stands at roughly 18%. Despite this growth, private label is meaningfully underpenetrated relative to many other developed markets, including Switzerland (45%) and the UK (41%). According to projections from Cadent Consulting, private label dollar share in the U.S. could reach ~26% by 2027. One of the factors that could help drive continued private label market share is the aggressive expansion of discounters such as Aldi and Lidl.
- **Innovation:** In June 2015, SunOpta opened an advanced innovation center in Edina, Minnesota, as part of an initiative designed to meet the growing demand from its customers for new and innovative new products. The new center supports a growing team of 22 food scientists, engineers, and technicians that is responsible for new product development as well as for identifying ways to increase profitability through process and formulation redesign. SunOpta has recently noted that it has developed new products that should enable it to participate in the large (~\$1 billion) and fast-growing broth category, which is experiencing a high single-digit/low double-digit growth rate. During the Company's 3Q 2016 earnings call, management noted that it had already secured a number of customers for the new products (with good initial reorder rates) and that it was building out its sales pipeline with many different customers across multiple channels for those products.
- **Global Ingredients:** Although under prior management SunOpta had been transitioning its business model from a raw material and ingredient supplier to a private label and contract supplier of finished package food products, STKL's new management has expressed a strong desire to also grow the global ingredients businesses. In fact, SunOpta's new leadership has stated that it expects to make investments to enhance its sourcing capabilities and services while still continuing to expand its packaged foods solutions. Commenting on the global ingredients business during the Company's 4Q 2016 earnings call, CEO Colo stated, "Organic ingredient growth trends are continuing to be very strong, and that is definitely a part of the business that we want to continue to leverage for profitable growth."
- **Foodservice:** SunOpta believes that there is a significant opportunity to increase its presence with foodservice customers. The Company has recently hired a new SVP of sales to expand its presence in this large channel, and during 2Q 2017, SunOpta activated a new foodservice distribution and sale brokerage network that leverages third-party capabilities.

Recent Results

SunOpta is currently in the "clean-it-up" phase of its multi-year turnaround, with management taking meaningful actions to build a platform for future growth. Accordingly, management has stated that revenue growth is expected to take a back seat as the Company seeks to optimize its portfolio. However, the Company is expected to experience improved profitability during the first phase of its turnaround. The following are some highlights of the Company's recent results:

- During 2Q 2017, SunOpta's gross margin was 12.5% on an adjusted basis, an increase of ~100 bps compared to the 11.5% gross margin in the prior-year period. Management attributed the improvement to operational efficiencies in its frozen fruit business and to cost reductions associated with the value creation plan.
- SunOpta's healthy fruit business has continued to be challenged due to the discrepancy between fresh and frozen fruit pricing. However, the price between the two has been narrowing, and pressure on results has started to moderate.

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- SunOpta stated that it is confident that the adverse impact from the lost sales associated with the recent Costco move to shift to a new supplier will be offset by increased sales to existing customers and by making sales to new customers.
- During 3Q 2017, SunOpta stated that it expects the incremental margin in the consumer products segment on new revenues to be above the corporate average as it leverages fixed costs and realizes the benefits of the value creation plan.
- During 3Q 2017, margins within the healthy beverage business were pressured by the Costco loss and lower volumes due to timing issues involving business with a large food service customer. As a result, utilization of its aseptic facilities was ~50%, but—as already noted—this is expected to increase going forward.
- Excluding the announced divestitures of re-sealable pouches and nutrition bars, the healthy snacks business reported a 13% revenue increase during 3Q 2017 due to increased fruit snack sales.

Outlook: A Review of SunOpta's Mid-Term Projections

“Our focus will be on margin and EBITDA, because at the end of the day those are the ultimate measures of our success and our commitment to shareholders. In my past, do I think the timing is realistic to achieve our plan? I do. You know, it takes time. As I said in my opening remarks, transformation is hard, change is hard, it is not linear. So but we are absolutely committed and believe in the long-term value creation at SunOpta, absolutely.”

– Dean Hollis SunOpta chairman of the board, 3Q 2016 earnings conference call

During its investor day in April 2016, SunOpta provided detailed targets for its business segments. Following the announcement of the value creation plan in October 2016, management has stuck with its prior targets:

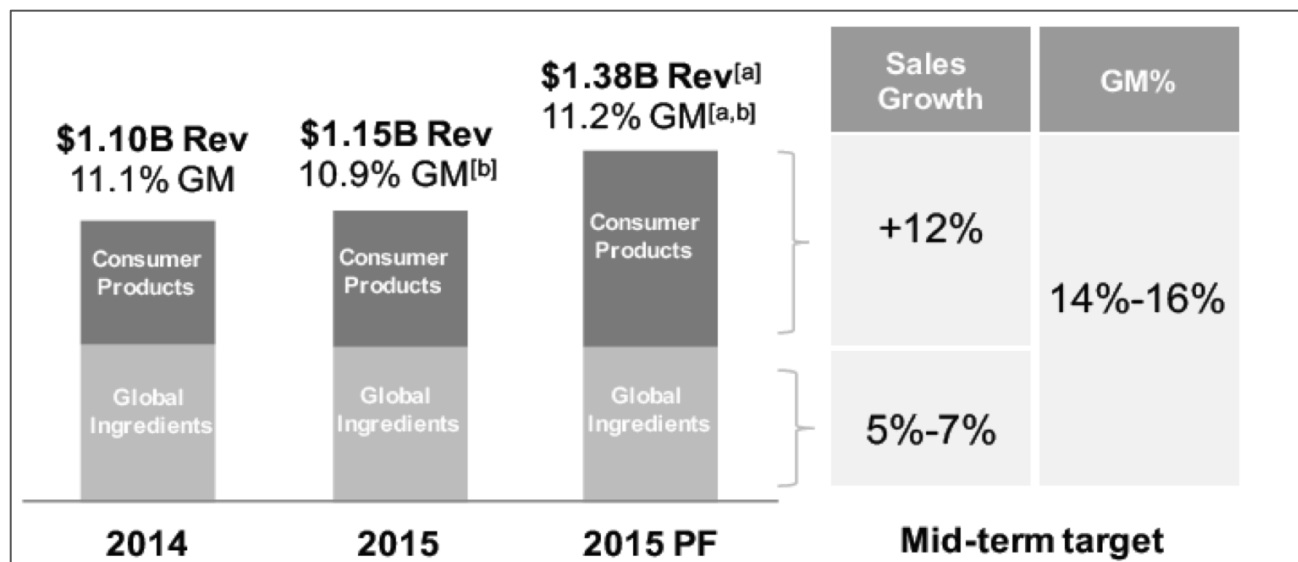
SunOpta's Mid-Term (24- to 36-month) Targets From Its April 2016 Investor Day

	<u>Annual Sales Growth (%)</u>	<u>Gross Margin (%)</u>	
<u>Global Ingredients</u>			<u>Notes:</u>
Specialty	nominal	12-14%	Global Ingredients generated a 10.3% GM in 2014 on \$619MM in revenue
Organic	<u>8-10%</u>	12-14%	Global ingredients generated a 11.5% GM in 2015 on \$611MM in revenue
subtotal:	5-7%		
<u>Consumer Products</u>			
Healthy Beverage			
Non-Aseptic	8-10%	16-18%	On a pro forma basis, healthy beverages generated a 12.5% GM in 2015 on \$269MM of revenue
Aseptic	>15%	16-18%	On a pro forma basis, healthy beverages generated a 15.4% GM in 2014 on \$261MM of revenue
Healthy Fruit			
Custom Formulation	3-5%	16-18%	On a pro forma basis, healthy fruit generated 11% GM on \$411MM of revenue
Food Service	5-8%	16-18%	
Retail	8-10%	16-18%	
Healthy Snacks*			
Fruit Snacks	\$55-60m	11-13%	
subtotal:	12%		

*Note: Healthy Snacks excludes projections for the divested bars and pouches businesses.

In April 2016, SunOpta stated that if it achieved its mid-term targets, then it would be able to experience an expansion of EBITDA to 8.5-10.5% of sales, which management has targeted as growing at an approximate high single digit growth rate. However, new management has communicated a slightly higher goal and is targeting an EBITDA margin of between 10% and 11% of sales.

SunOpta: Consolidated Mid-Term Targets



Source: Company presentation, April 2016.

Additional components of the Company's mid-term target include the following:

- SG&A at or below 8% of sales
- D&A and stock comp of ~\$34-\$38 million (~2.5% of sales)

As already noted, the Company began investing a significant amount in its business in 2017, with capital expenditures targeted at \$30-\$35 million in 2017, compared with \$22.6 million in 2016. Prior management had previously targeted the Company's maintenance capital expenditures in the \$10-\$12 million range.

Balance Sheet and Financial Position

As of September 30, 2017, SunOpta had \$490 million of total debt outstanding, resulting in a leverage ratio (total debt/EBITDA) of 6.5x. The Company's debt can be classified into two main buckets: debt issued under its global credit facilities (\$259 million) and the Company's senior secured second lien notes of \$223 million. (Note: There was also \$8 million of other debt outstanding.) The debt under the global credit facility had a weighted average interest rate of 3.1% as of September 2017 and comes due in February 2021, while the senior secured second lien notes (9.5% coupon) mature in October 2022. The Company had approximately \$69 million of available borrowing capacity on its global credit facility at the end of 3Q 2017. There is a bit of a seasonal component to the Company's debt, and SunOpta expects debt to decline during 4Q 2017, with total debt at the end of the year expected to look similar to 2016 levels. As noted previously, the Company is making significant investment in its business during 2017, and therefore its excess cash flow is being deployed to build the foundation for future growth. Going forward, there should be ample cash flow to delever toward the Company's targeted 3.0-3.5x targeted leverage ratio.

SunOpta: Leverage Summary

	4Q 2015*	1Q 2016	2Q 2016	3Q 2016	4Q 2016	1Q 2017	2Q 2017	3Q 2017
Total Debt	\$482.8	\$518.6	\$557.8	\$546.3	\$432.6	\$425.9	\$467.7	\$489.8
Adjusted EBITDA (TTM) Implied	\$96.6	\$92.6	\$93.0	\$94.2	\$86.5	\$80.4	\$76.7	\$75.4
Leverage Ratio Press Release	5.0x	5.6x	6.0x	5.8x	5.0x	5.3x	6.1x	6.5x

*4Q 2015 adjusted EBITDA reflects run rate EBITDA of acquired businesses and cost synergies expected to be realized in 2016.

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In October 2016, SunOpta utilized proceeds from Oaktree's preferred stock investment to pay down \$79 million in debt. Going forward, SunOpta has flexibility to pay down its debt, and we would expect the high coupon debt to be the preferred method to delever. As the Company's turnaround gains traction, we would not be surprised to see the Company refinance a large portion of its financial obligations.

SunOpta: An Overlooked Business

Despite the fact that SunOpta has attracted the attention of three prominent activist investors, we believe that the shares are generally overlooked on Wall Street. SunOpta is what we would call an "index orphan" (see AAF's 2017 Thematic Piece for additional details) in that it is not listed within any of the key S&P indices due to its foreign domicile and in spite of its U.S. listing (SunOpta is dual-listed and is also traded in Canada on the TSX under the ticker SOY). At present, there are no prominent sell side firms following the SunOpta shares and just 3 analysts covering the stock. It is also worth noting that major indices in Canada include many resource-based companies, which have been out of favor in recent years. SunOpta's inclusion in funds tied to these indices has likely put pressure on the Company's shares. The TSX recently hit a 4-year low, and SunOpta shares have declined by about 30% from recent highs.

Valuation

Admittedly, SunOpta's current valuation is unappealing based on current and historical earnings. However, we believe that SunOpta has not lived up to its potential given its acquisitive past and its inability to properly integrate acquired businesses over the years. SunOpta operates in a very attractive market that should experience strong growth for the foreseeable future given consumer trends that promote living a more healthful lifestyle. In this attractive industry, we believe that SunOpta is well positioned in attractive categories within consumer products. Moreover, we believe that the Company possesses meaningful competitive advantages in the business of sourcing hard-to-find organic and non-GMO ingredients, and we think that demand for these inputs should exceed supply for many years to come (read: good future pricing power). New leadership at the Company has a proven track record of unlocking shareholder value in the consumer products industry, and we believe that SunOpta, which has seen its shares decline by about 30%, represents an attractive risk/reward at current levels.

In determining our valuation for SunOpta, we have looked toward precedent industry transactions as a guideline. There have been a number of transactions in the consumer products industry over the years. Branded consumer products companies have typically garnered low double-digit (teens) EV/EBITDA multiples, while acquisitions of private label firms have commanded high single-digit multiples, on average. In 2012, private label manufacturer Ralcorp Holdings Inc. was acquired by ConAgra for 1.5x sales and 11.9x EBITDA. At that time, Ralcorp's EBITDA margins were in the low teens range, which is comparable to the targeted profitability for SunOpta. Recent multiples for branded consumer packaged goods companies have occurred at even healthier multiples, including Campbell Soup's pending acquisition of Snyder's-Lance at a nearly 20x EBITDA (12.8x post-synergies), McCormick's 2017 acquisition of Reckitt Benckiser's food business for 19.6x, and Keurig's pending 2018 offer to acquire to Dr. Pepper Snapple Group at a 16.8x EV/EBITDA. Given SunOpta's organic/non-GMO focus, we believe that transactions in the healthy natural space might also be a good precedent. As illustrated in the following table, recent transactions in the healthy/natural space have occurred at an average of ~16x on an EV/EBITDA basis.

Healthy/Natural Precedent Transactions

<u>Date</u>	<u>Target</u>	<u>Acquirer</u>	<u>EV/Sales</u>	<u>EV/EBITDA</u>
2017	Back to Nature Foods	B&G Foods	2.0x	9.6x
2016	Diamond Foods	Snyder's-Lance	2.2x	15.4x
2015	Boulder Brands	Pinnacle Foods	1.9x	14.6x
2014	Annie's	General Mills	3.9x	36.2x
2014	Amplify/SkinnyPop	TA Associates	3.2x	7.2x
2014	KIND	Daniel Lubetzky	3.7x	15.3x
Average:			2.8x	16.4x

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Although the Amplify transaction listed in the foregoing table occurred at just 7.2x EBITDA in 2014, the Hershey Company announced in December 2017 that it had agreed to acquire the business (which was taken public in 2015) for \$1.6 billion, or ~14.8x EBITDA. (TA Associates acquired its majority stake in Amplify for \$320 million in 2014.)

The following table presents three scenarios that summarize our view of SunOpta's valuation. In our bear case scenario, we assume that SunOpta achieves annual revenue growth over the next 3 years of 6%, which is well below the industry's current growth rate, and project that the Company can achieve a 2020 EBITDA margin of 8%, well below its 10-11% target. Based on our assumption that the Company delevers by just under 1 turn a year over the next 3 years, we derive an intrinsic value of \$6.69 a share, which is just below the current share price. Our base case valuation applies a 10x multiple to our 2020E EBITDA projection and assumes high single-digit annual revenue growth and an EBITDA margin of 9.5%, which is below the low end of the Company's targeted 10-11% range. Under this base case scenario, we forecast that SunOpta can delever by ~3.5x turns over the 2018-2020 time frame, resulting in an intrinsic value of nearly \$12 a share, representing 65% upside from current levels. In our bull case scenario, we derive an intrinsic value of ~\$17.50 a share, or over 142% upside from current levels. In deriving our bull case estimate, we have still applied what we view as conservative multiples and projections for target multiples (11.5x), revenue growth (10%), and EBITDA margin of 10.5%, which is at the midpoint of the Company's targeted outlook.

SunOpta: Estimate of Intrinsic Value Summary

<u>SunOpta Bear Case</u>		<u>SunOpta Base Case</u>		<u>SunOpta Bull Case</u>	
	<u>Value (\$MM)</u>		<u>Value (\$MM)</u>		<u>Value (\$MM)</u>
2020E EBITDA	\$120.07	2020E EBITDA	\$150.81	2020E EBITDA	\$176.12
Multiple	8.5x	Multiple	10.0x	Multiple	11.5x
Enterprise Value	\$1,020.6	Enterprise Value	\$1,508.1	Enterprise Value	\$2,025.40
2020E Net Debt	\$366.2	2020E Net Debt	\$346.9	2020E Net Debt	\$317.0
Equity Value	\$654.4	Equity Value	\$1,161.3	Equity Value	\$1,708.4
Diluted Shares (2020E)	97.871	Diluted Shares (2020E)	97.871	Diluted Shares (2020E)	97.871
Per Share	\$6.69	Per Share	\$11.87	Per Share	\$17.46
% upside from current levels	-7.1%	% upside from current levels	64.8%	% upside from current levels	142.4%
<u>Key Assumptions</u>		<u>Key Assumptions</u>		<u>Key Assumptions</u>	
2018-2020 Revenue Growth (CAGR)	6.0%	2018-2020 Revenue Growth (CAGR)	8.0%	2018-2020 Revenue Growth (CAGR)	10.0%
2020 EBITDA Margin	8.0%	2020 EBITDA Margin	9.5%	2020 EBITDA Margin	10.5%
2018-2020 deleveraging (turns)	2.8x	2018-2020 deleveraging (turns)	3.5x	2018-2020 deleveraging (turns)	4.0x

Risks

The Company's primary risks include, but are not limited to, the following:

- Inability of new management to drive growth and improve profitability.
- Difficulty securing hard-to-source ingredients.
- The Company may not be able to refinance or pay down its debt or refinance it when it comes due.

SunOpta Inc.

- Interests of major shareholder Oaktree may not be perfectly aligned with those of long-term shareholders.
- Difficulty implementing quality control measures that could lead to product recalls.
- The potential that consumer tastes and preferences shift, causing reduced demand for the Company's products and services.
- The prospect for increased costs associated with securing seasonal workers for farms and production facilities.
- Adverse weather conditions or natural disasters that reduce the supply of organic and non-GMO ingredients that are used in the Company's products.
- The prospect of changes to NAFTA could impact the Company's Mexican and Canadian operations.
- The Company has operations in Mexico that are located in regions where there have been incidents of unrest.

Analyst Certification

Asset Analysis Focus certifies that the views expressed in this report accurately reflect the personal views of our analysts about the subject securities and issuers mentioned. We also certify that no part of our analysts' compensation was, is, or will be, directly or indirectly, related to the specific views expressed in this report.

SUNOPTA INC.
CONSOLIDATED BALANCE SHEETS
(Unaudited; All dollar amounts expressed in thousands of U.S. dollars)

ASSETS	September 30, 2017	December 31, 2016
Current assets:		
Cash and cash equivalents	\$2,855	\$1,251
Accounts receivable	147,481	157,369
Inventories (note 7)	370,599	368,482
Prepaid expenses and other current assets	37,257	19,794
Income taxes recoverable	4,862	2,801
Assets held for sale (note 2)	<u>1,250</u>	<u>—</u>
<i>Total current assets</i>	<i>564,304</i>	<i>549,697</i>
Property, plant and equipment	160,100	162,239
Goodwill	224,415	223,611
Intangible assets	174,808	183,524
Deferred income taxes	1,056	1,045
Other assets	8,411	9,442
TOTAL ASSETS	\$1,133,094	\$1,129,558
LIABILITIES		
Current liabilities:		
Bank indebtedness (note 8)	\$259,008	\$201,494
Accounts payable and accrued liabilities	156,538	173,745
Customer and other deposits	638	2,543
Income taxes payable	2,371	5,661
Other current liabilities	251	1,016
Current portion of long-term debt (note 8)	2,045	2,079
Current portion of long-term liabilities	<u>5,304</u>	<u>5,500</u>
<i>Total current liabilities</i>	<i>426,155</i>	<i>392,038</i>
Long-term debt (note 8)	228,761	229,008
Long-term liabilities	8,281	15,354
Deferred income taxes	<u>31,281</u>	<u>44,561</u>
TOTAL LIABILITIES	694,478	680,961
Series A Preferred Stock (note 9)	79,932	79,184
EQUITY		
SunOpta Inc. shareholders' equity Common shares, no par value, unlimited shares authorized, 86,673,271 shares issued (December 31, 2016 - 85,743,958)	308,319	300,426
Additional paid-in capital	26,657	25,522
Retained earnings	30,157	53,838
Accumulated other comprehensive loss (note 11)	<u>(7,928)</u>	<u>(13,104)</u>
	357,205	366,682
Non-controlling interests	<u>1,479</u>	<u>2,731</u>
TOTAL EQUITY	358,684	369,413
TOTAL EQUITY AND LIABILITIES	\$1,133,094	\$1,129,558

Asset Analysis Focus is not an investment advisory bulletin, recommending the purchase or sale of any security. Rather it should be used as a guide in aiding the investment community to better understand the intrinsic worth of a corporation. The service is not intended to replace fundamental research, but should be used in conjunction with it. Additional information is available on request. The statistical and other information contained in this document has been obtained from official reports, current manuals and other sources which we believe reliable. While we cannot guarantee its entire accuracy or completeness, we believe it may be accepted as substantially correct. Boyar's Intrinsic Value Research LLC, its officers, directors and employees may at times have a position in any security mentioned herein. Boyar's Intrinsic Value Research LLC Copyright 2018.