




June 26, 2018 04:01 AM GMT

Altria Group, Inc.

Is JUUL Hype Overblown?

 Stock Rating
 Equal-weight

 Industry View
 In-Line

 Price Target
 \$63.00

JUUL's success underscores the potential for disruptive technology to undermine US Tobacco's reliable business algorithm. We estimate JUUL e-cigs could be a ~100 bps annual headwind to cigarette volumes in our Base Case and see MO moving towards MSD EPS growth in 2020. EW.

JUUL's success is having a growing impact on US cigarette volumes. US cigarette volume declines accelerated from -4% in 2017 to -5.5% in 1Q18, coinciding with rapid JUUL growth. JUUL accounted for 3.5% of total cigarette equivalent volumes in May (vs. just 0.5% in 2017) and we estimate was a ~50 bps headwind to cigarette volumes in the L12W (vs. 10-30 bps in 2017). We estimate JUUL is sourcing ~20% of its volumes from cigarettes but expect growth to increasingly source from cigarette volumes as JUUL's distribution and awareness grows.

In our new Base Case, we estimate a ~100 bps annual headwind to 2018-22 US cigarette industry volumes: Since JUUL is a nascent product, we assess a range of scenarios for its long-term impact to cigarette volumes and provide a framework for quantifying its impact. In our Base Case, we see a ~100 bps annual headwind to 2018-22 cigarette volumes, assuming 15% JUUL volume share of cigarettes by 2022 with ~40% of its sales sourcing from cigarettes. In our Bull and Bear Cases, we see a 20 bps and 300 bps annual headwind, respectively, to cigarette volumes. We believe the FDA's near-term options for constraining JUUL growth are limited. We see an equal impact across MO/RJR's brands, as RJR skews toward a younger demographic but MO has higher overall share.

MO's growth outlook to slow to MSD post 2019: The combination of smokers' desire to switch to lower risk alternatives, the FDA's agenda to shift smokers down the continuum of risk to reduced-risk products ("RRPs") and e-cig technological improvements create a strong force for accelerating the pace of change in the tobacco industry. We believe it will become increasingly difficult for MO to retain its degree of category leadership as the tobacco industry shifts to become more fragmented, complex, and technology-dependent. This shift enhances risk to both MO's volume trajectory and cigarette pricing elasticity, and may require increased reinvestment. We are reducing our 2019-22 volume forecasts by ~100 bps, to -4.5% annually and see 5-6% annual EPS growth beginning in 2020 as more achievable.

We are EW given greater long-term concerns and a widening risk-reward: MO's shares have meaningfully de-rated over the last year (from 22x NTM P/E in June 2017 to 13.1x today), and the stock is now trading at ~25% discount to Staples (at 17.0x 2019e P/E), below its 5-year 10% discount. However, we remain EW as we

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Altria Group, Inc. (MO.N, MO US)

Tobacco / United States of America

Stock Rating	Equal-weight			
Industry View	In-Line			
Price target	\$63.00			
Shr price, close (Jun 25, 2018)	\$57.07			
Mkt cap, curr (mm)	\$159,801			
52-Week Range	\$77.00-53.91			
Fiscal Year Ending	12/17	12/18e	12/19e	12/20e
EPS (\$)**	3.42	3.97	4.27	4.50
Prior EPS (\$)**	-	3.98	4.33	4.71
Consensus EPS (\$)	3.28	4.01	4.34	4.78
ModelWare EPS (\$)	3.42	4.14	4.27	4.50
P/E	20.9	13.8	13.4	12.7
Div yld (%)	3.5	5.2	5.8	6.1

Unless otherwise noted, all metrics are based on Morgan Stanley ModelWare framework

** = Based on consensus methodology

§ = Consensus data is provided by Thomson Reuters Estimates

e = Morgan Stanley Research estimates

QUARTERLY EPS (\$)

Quarter	2017	2018e Prior	2018e Current	2019e Prior	2019e Current
Q1	0.73	-	0.95a	-	-
Q2	0.85	0.97	0.97	-	-
Q3	0.90	1.10	1.09	-	-
Q4	0.91	1.00	0.99	-	-

e = Morgan Stanley Research estimates, a = Actual Company reported data

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have long-term concerns about the sustainability of MO's HSD growth algorithm and anticipate MSD EPS growth beyond 2019. We see a widening risk reward given the range of potential JUUL outcomes and resulting impact to MO's fundamental growth outlook. We are reducing our PT to \$63 (vs. \$65 prior) based on 15.0x our updated 2019e EPS and reflecting a 10% discount to Staples peers, in-line with its 5-year average. We see a widening risk-reward with ~33% upside/downside to our Bull and Bear Cases.

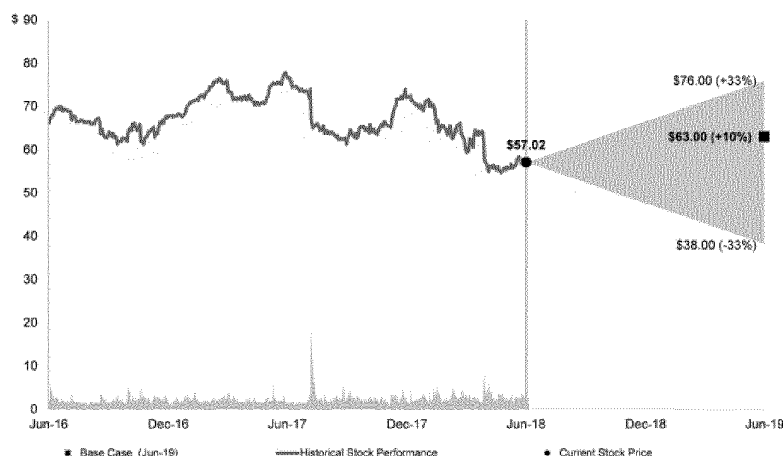
Exhibit 1: Average annual headwind to cigarette volumes from JUUL market share and cannibalization rate scenarios from 2018-2022

		JUUL Share of Cigarette Volumes by 2022					
JUUL Cannibalization Rate	JUUL Share	5%	10%	15%	20%	25%	30%
	10%	-9 bps	-19 bps	-29 bps	-39 bps	-48 bps	-58 bps
	20%	-19 bps	-39 bps	-58 bps	-78 bps	-98 bps	-119 bps
	30%	-29 bps	-58 bps	-88 bps	-119 bps	-149 bps	-180 bps
	40%	-39 bps	-78 bps	-118 bps	-159 bps	-201 bps	-243 bps
	50%	-49 bps	-98 bps	-149 bps	-201 bps	-254 bps	-307 bps
	60%	-58 bps	-118 bps	-180 bps	-243 bps	-307 bps	-373 bps
	70%	-68 bps	-139 bps	-211 bps	-286 bps	-362 bps	-441 bps
	80%	-78 bps	-159 bps	-243 bps	-329 bps	-418 bps	-510 bps
	90%	-88 bps	-180 bps	-275 bps	-373 bps	-475 bps	-581 bps
	100%	-98 bps	-201 bps	-307 bps	-418 bps	-534 bps	-654 bps

Source: Nielsen xAOC+C, Morgan Stanley Research

Risk-Reward: Altria Group (MO, Equal-weight, Price Target \$63)

Risk-Reward View: Balanced risk-reward as high visibility to near-term EPS growth is offset by greater long-term concerns



Source: Thomson Reuters, Morgan Stanley Research

Price Target \$63

Based on 15x C2019e P/E, at a 10% discount to US Staples, consistent with the stock's 5-year historical average discount and supported by our DCF analysis.

Bull \$76

18x 2019e P/E

Limited disruption to the status quo. JUUL only captures 5% of the market by 2022, with a 20% cannibalization rate and resulting in a 20 bps headwind to annual cigarette volumes. Volumes decline ~3.5% annually and net pricing remains at 4% annually. Margins expand by 570 bps 2025. Minimal FDA movement on nicotine reduction agenda.

Base \$63

15x 2019e P/E

Volume declines accelerate below low end of historical range; increased investment needs drives MSD EPS growth beyond 2019. JUUL captures 15% market share of baseline cigarette volumes by 2022 and assuming 40% of JUUL volumes are sourcing from cigarettes by 2022, volume declines accelerate to 4.5% annually. Net pricing remains solid at ~3.5%. EBIT margins expand by 150 bps by 2025 due to cost cutting and improved All Other profitability. MSD EPS growth beyond 2019.

Bear \$38

10x 2019e P/E

Elevated volume declines and limited net pricing. JUUL captures 30% market share of baseline cigarette volumes and assuming 50% of JUUL's growth comes at the expense of cigarettes, volume declines accelerate to ~7% annually. No long-term net pricing growth. Margins contract by 1,100 bps by 2025 due to operating deleverage. FDA aggressively pursues its nicotine reduction agenda.

Investment Thesis

- MO is facing increasing cigarette volume headwinds from reduced-risk products such as JUUL, which should accelerate volume declines and could increase pricing elasticity.
- MO has multiple levers, including consistent cigarette pricing power, tax reform savings and the contribution from ABI equity income to support its 7-9% EPS growth algorithm in the near term but we see MSD EPS growth beyond 2019.
- We see potential for upside from possible iQOS commercialization in the US in early 2019.
- MO is facing a more challenging regulatory backdrop due to the FDA pursuing its nicotine reduction agenda.

Key Value Drivers

- Aggressiveness of management with respect to net pricing, further cost reductions, share repurchases, and monetization of noncore assets.
- Cigarette pricing realization and pace of US cigarette industry unit volume decline.
- MO's success in reduced-risk products.

Risks to Achieving Price Target

- Upside risks: Stronger net pricing and margin expansion in cigarettes; Increased shareholder returns via share repurchases; lower than expected headwinds from JUUL growth.
- Downside risks: Promotional spending, taxes & FDA, higher than expected JUUL market share and cigarette cannibalization rates.

Is US Tobacco Facing an Existential Threat?

Our View

We believe JUUL has become a growing a headwind to US cigarette volumes.

Our analysis suggests that ~20% of JUUL volumes are coming at the expense of cigarettes and that it can present a ~100 bps annual headwind to volumes in 2018-22. Given that JUUL is a nascent product and it is unclear if it will have enduring success, we provide a framework for assessing its potential impact to cigarette volumes.

With respect to MO, we are reducing our long-term volume and EPS growth forecasts towards a MSD EPS growth algorithm to take into account greater topline and cost headwinds associated with growth in alternative products such as JUUL. We see a range of RRP outcomes contributing to a widening risk-reward.

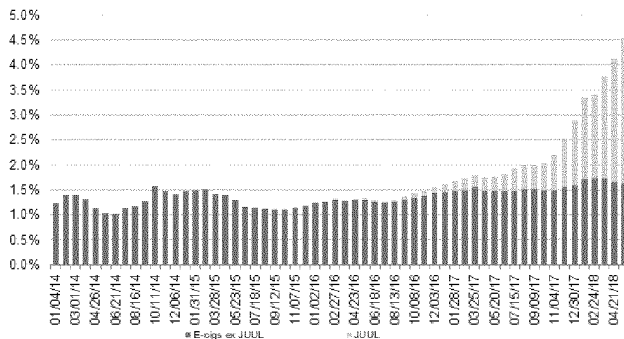
Market View

Given MO's share price performance YTD, investors are clearly concerned about the impact of competitive products such as JUUL on MO's ability to sustain its topline and EPS growth algorithm.

However, we do not believe consensus estimates reflect the potential for accelerating JUUL adoption. Consensus forecasts reflect 3.0-3.5% volume declines in 2019-20, at the high end of the industry's historical annual volume decline. Moreover, consensus forecasts reflect sustained delivery on MO's 7-9% EPS growth algorithm.

Exhibit 2: E-cig growth is driven by JUUL's success, with e-cigs holding 4.5% \$ market share

U.S. E-Cig \$ as % of Total E-cig + Cigarettes Sales



Source: Nielsen xAOC+C, Morgan Stanley Research

JUUL disruption underscores the tobacco industry's complex challenge as e-cig technological improvements and product proliferation are likely to reshape the tobacco landscape.

Selling cigarettes has been a long-standing, reliable and profitable business given limited viable alternatives and the industry's strong pricing power. However, the combination of smokers' desire to switch to lower risk alternatives, improving RRP technology, and the FDA's regulatory agenda to move smokers down the continuum of risk creates a strong force for accelerating the industry's pace of change. We expect the tobacco industry to move towards a more fragmented range of products that will address varying consumer preferences and usage occasions. The fact that a San Francisco-based start-up founded by two Stanford design students is emerging as a formidable competitor to the

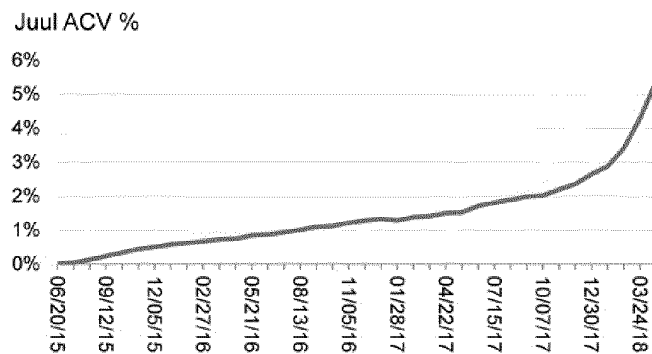
large, deep-pocketed industry incumbents with abundant R&D and marketing resources as well as brand building and regulatory expertise, highlights that it will likely be challenging for the tobacco manufacturers to retain their market leadership as the category becomes increasingly fragmented, complex, and technology-dependent.

JUUL's rapid growth is coinciding with decelerating US cigarette volumes. Cigarette volumes declined -4% in 2017 following two years of unusually strong performance (-0.5%/-2.5% in 2015/16) and remained soft in 1Q18 (-5.5%). This softness is coinciding with an acceleration in e-cigarette category growth due to JUUL's success, raising concerns about its threat to the cigarette category. Over the last year, e-cig sales grew by 85% to \$1.8 bn in measured channels (\$3.0 bn total in 2017) driven predominantly by JUUL, a new e-cigarette, which launched in 2015 and expanded capacity as the company raised external capital. Within measured channels, which understate JUUL sales as they do not

capture online or vape shops, JUUL had \$785 MM in sales over the last 52 weeks and sales grew 950% YoY in May. JUUL holds 64% market share of e-cigs after less than a year and a half in conventional distribution channels. It also accounts for 3% of total spend on cigarettes and e-cigs combined and sold units equivalent to 3.5% of cigarette volumes in May.

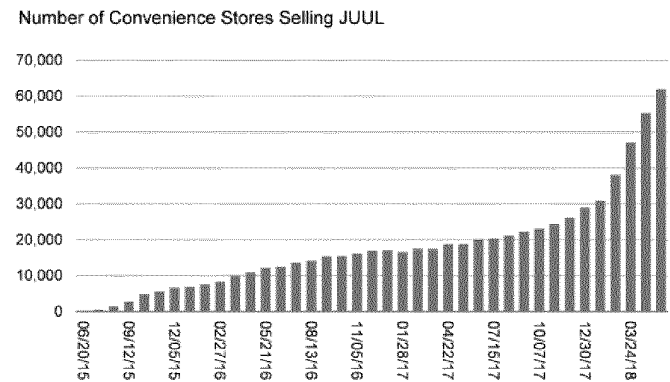
JUUL captured 3.5% share of cigarette industry volumes with relatively limited distribution. Over the last 52 weeks, JUUL was sold at stores accounting for only 2.7% ACV (all-commodity volume), a measure of their share of total US retail sales but is growing rapidly, accounting for 6.0% ACV in L4W. Within measured channels, JUUL is sold at convenience stores and was available at 62,000 convenience stores in May compared to only 29,000 at the end of 2017. Among convenience stores, JUUL is sold at stores representing holds 54% ACV. Traffic challenged convenience stores have a strong incentive to sell the product as its sales per store are growing over 200% YoY. JUUL still has a meaningful distribution opportunity in the US relative to ~155,000 convenience stores in the US.

Exhibit 3: JUUL Gaining ACV



Source: Nielsen xAOC+C, Morgan Stanley Research

Exhibit 4: JUUL is now sold at 60K convenience stores vs. 29K in December



Source: Nielsen xAOC+C, Morgan Stanley Research

JUUL's success can attract more competition. From a practical standpoint, the tobacco industry has high barriers to entry given the FDA's oversight. In 2016, the FDA extended its authority to e-cigarettes through the Deeming Regulations, which allows any e-cigarette on the market prior to August 8, 2016, to remain on the market, but manufacturers are required to file a Pre-Market Tobacco Application (PMTA) with the FDA by 2022. A product developed after August 8, 2016, can not be commercialized without submitting a PMTA and receiving approval from the FDA. Despite this regulation, new e-cigs are still coming to market (including from MO and BAT) as long they had some commercial presence in 2016 and we would not be surprised to see new competitors emerge based on a technology that was in limited distribution over the last several years. In addition, there is nothing stopping new competitors from developing their own technology and filing a PMTA with the FDA at any point prior to 2022. While this is a costly process, JUUL has been successful in raising capital, including a \$150 MM in a round late last year, and recent press reports indicate a \$10 bn valuation, so the financial burden is likely not a prohibitive factor.

JUUL is unique in the extent to which it is disrupting the category. In the past multiple e-cigs (such as NJOY, blu) experienced initial rapid growth but ultimately disappointed in

their ability to fully satisfy smoker needs. We believe JUUL is different because of its enhanced technology which is based on a nicotine salt that more closely mimics the nicotine delivery of smoking a cigarette. Moreover, no other e-cig has been able to capture such a meaningful share of the overall cigarette category. While it is unclear if JUUL will demonstrate enduring success, its results so far suggest that consumers are both eager to try alternative products and that e-cig technological improvements are increasingly satisfying smokers. The impending introduction of competitive products such as myblu (Imperial Tobacco) may impact JUUL's ultimate success but nonetheless pose a similar headwind to conventional cigarettes.

In our view, JUUL's growth is partly coming at the expense of cigarette sales. Our discussions with JUUL users indicate that the product appeals to smokers who view it as a means of quitting/reducing their cigarette consumption. In addition, our analysis of US scanner data by region suggests cigarette volume declines are worsening in regions where JUUL's market share momentum is growing. Anecdotal evidence suggests JUUL appeals to youth, and if this is the case, JUUL is also likely "stealing" future smokers as the average age of smoking initiation is 19.5 years old. Given that smokers' consumption increases as they age, this dynamic could contribute to accelerating cigarette volume declines long-term as the current JUUL user base ages.

We estimate that JUUL can have a ~100 bps impact to annual cigarette industry volumes over the next five years. Given that JUUL is still a nascent product, it is difficult to gauge the sustainability of its current success and/or category impact. In particular, its growth rate may be constrained by regulatory measures to combat its alleged youth appeal (though we believe the FDA's options are limited) or its success may be a temporary fad. It is prudent to evaluate a range of potential outcomes for its impact to cigarette volumes based on different market share and cigarette cannibalization rate scenarios. As a baseline, we estimate US cigarette industry volumes decline 3.5% annually. In our base case, we estimate a ~100 bps incremental headwind to cigarette volumes annually reflecting ~15% JUUL market share of baseline cigarette volumes by 2022 (versus 3.5% today) and that ~40% of its volumes will come at the expense of cigarettes (versus ~20% today).

Exhibit 5: Annual headwind to industry volumes from JUUL market share and cannibalization rate scenarios

Assumptions	Current	2018E	Bull	2022E Base	Bear
JUUL Volume % Baseline Cigarette Volumes (pre-JUUL impact)	3.5%	5.2%	4.9%	14.7%	30.9%
JUUL % Volumes Sourcing from Cigs	22.0%	22.0%	22.0%	40.0%	50.0%
Average Annual Headwind to Cigarette Volumes (2018-22E)		-110 bps	-21 bps	-116 bps	-317 bps

Source: Nielsen xAOC+C, Morgan Stanley Research

Exhibit 6: Average annual headwind to cigarette volumes from JUUL market share and cannibalization rate scenarios from 2018-2022

		JUUL Share of Cigarette Volumes by 2022					
JUUL Cannibalization Rate	RRP Impact	5%	10%	15%	20%	25%	30%
10%	-9 bps	-19 bps	-29 bps	-39 bps	-48 bps	-58 bps	
20%	-19 bps	-39 bps	-58 bps	-78 bps	-98 bps	-119 bps	
30%	-29 bps	-58 bps	-88 bps	-119 bps	-149 bps	-180 bps	
40%	-39 bps	-78 bps	-118 bps	-159 bps	-201 bps	-243 bps	
50%	-49 bps	-98 bps	-149 bps	-201 bps	-254 bps	-307 bps	
60%	-58 bps	-118 bps	-180 bps	-243 bps	-307 bps	-373 bps	
70%	-68 bps	-139 bps	-211 bps	-286 bps	-362 bps	-441 bps	
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90%	-88 bps	-180 bps	-275 bps	-373 bps	-475 bps	-581 bps	
100%	-98 bps	-201 bps	-307 bps	-418 bps	-534 bps	-654 bps	

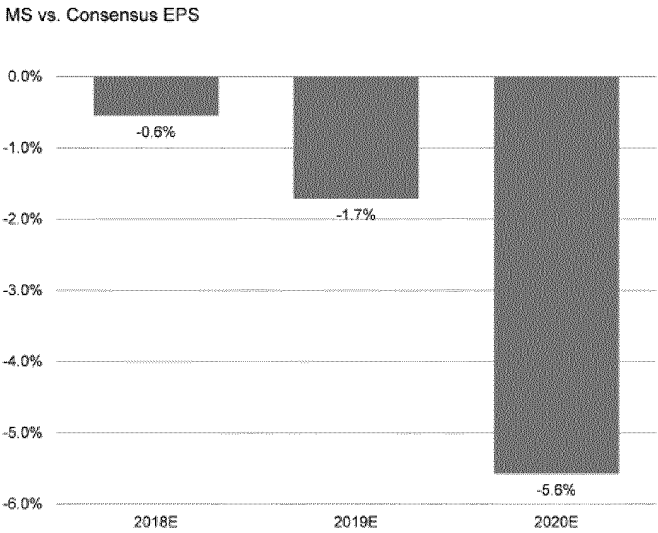
Source: Nielsen xAOC+C, Morgan Stanley Research

We see MO moving toward a MSD EPS growth algorithm beyond 2019. Growing JUUL adoption enhances risk to MO's volume trajectory and could result in elevated investment needs behind innovation in reduced-risk products (RRPs) and to defend cigarette sales. While we believe the cigarette industry has a long runway for pricing growth, the proliferation of viable lower risk substitutes such as JUUL, which are cheaper than cigarettes due to their excise tax advantage, could elevate cigarettes' historical 30% pricing elasticity. Given these increased risks, we are reducing our outlook for 2019-22 volume declines by ~100 bps, to -4.5% but still see solid 3.5% net pricing. We expect it to become increasingly difficult for MO to sustain its 7-9% EPS growth algorithm as volumes continue to decline and further cost reduction becomes challenging. Beyond 2019, we see 5-6% EPS growth as more achievable.

MO could acquire JUUL to eliminate it as a threat but several considerations that reduce this possibility. Specifically, in its latest funding round, JUUL was valued at \$10 bn and MO would likely have to pay a premium to this amount. JUUL could see MO's interest as an affirmation of its negotiating leverage and would probably want to be compensated for its international expansion opportunity as it plans to expand in Europe this year. In December 2017, JUUL appointed a new CEO who was previously Chobani's COO, an indication the company may not view a sale as imminent. Lastly, we do not believe MO would acquire the company right before new competition (myblu) enters the market as it would probably wait to see how the competitive dynamics play out. Note that Altria has acquired market leaders in other tobacco categories such as UST (smokeless tobacco) and Middleton (cigars).

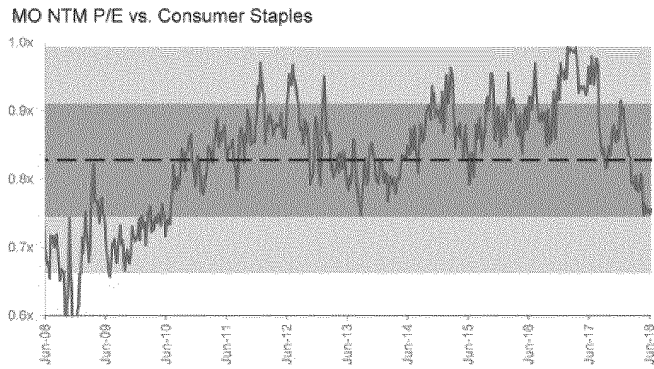
We remain EW as we have long-term concerns about the sustainability of MO's 7-9% growth algorithm. While we believe the company should deliver on its outlook in 2018 and sustain HSD EPS growth in 2019 as it will be lapping elevated 2018 investment, we believe EPS growth will moderate towards mid-single digits beyond 2019 due to accelerating volume declines (MSe -4.5%), higher investment needs, and more elusive cost savings. As a result, we are ~2.0% and ~5.5% below 2019 and 2020 consensus EPS forecasts. However, we recognize that the stock has already significantly de-rated over the last year (from 22x NTM P/E in June 2017 to 13.1x today) with the stock now trading at ~25% discount to Staples (at 17.0x 2019e P/E), approximately 1-standard deviation below its 10-year 15% discount to Staples. Our \$63 PT is based on 15.0x 2019e EPS a 10% discount to Staples, in-line with the stock's 5-year average discount versus Staples peers. We remain Equal-weight as we see a widening risk-reward.

Exhibit 7: MS vs. Consensus EPS 2018-20



Source: Thomson Reuters, Morgan Stanley Research

Exhibit 8: We believe increased fundamental risks are already reflected in MO's valuation



Source: Thomson Reuters, Morgan Stanley Research

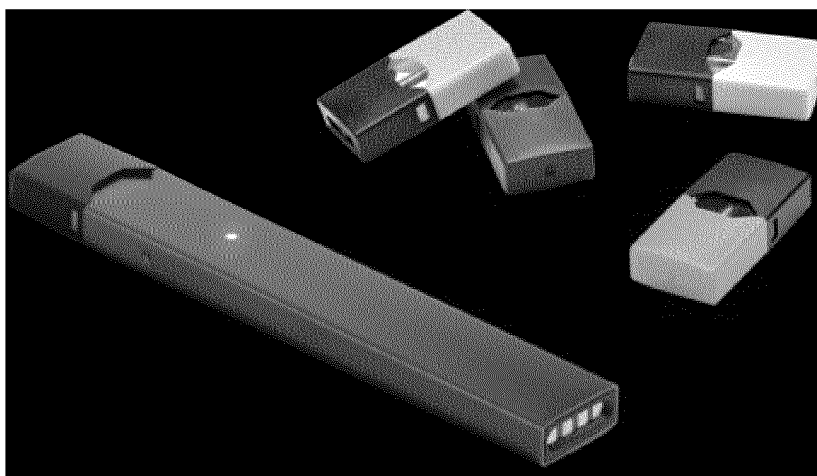
What is JUUL? JUUL is an e-cigarette that contains a device, pod, and a charger. The e-liquid in a JUUL contains 5% nicotine concentration by weight, which is more than double the amount in most other e-cigarette products on the market. Instead of the "freebase" liquid nicotine used in many e-cigs, JUUL contains benzoic acid, which creates a nicotine salt when heated that gives the vapor a smoother, less harsh taste relative to other e-cigs and allows users to inhale the product more strongly for a longer period of time. Nicotine salts also allow nicotine to travel deeper into the body with the nicotine absorption occurring in the lungs rather than in the throat and more closely mimics cigarettes' nicotine delivery. Other products containing a nicotine salt include RJR's Vuse Solo and MO's MarkTen Bold e-cigs.

JUUL is available in eight flavors: Mango, Cool Cucumber, Virginia Tobacco, Classic Menthol, Fruit Medley, Creme Brulee, and Classic Tobacco.

JUUL's appeal likely stems from its design, nicotine content, flavors, social media presence, and cost. Aside from its high nicotine content and flavor options, JUUL has a sleek design, is discrete, and it can be recharged in a USB drive. JUUL has a large social media presence as users share photos and videos using the product.

From a cost perspective, a JUUL starter kit sells for \$49.99 and includes a JUUL device, USB charger, four JUUL pods. A device kit alone is \$34.99 and a pack of four pods cost \$22.99. Assuming one pod is equivalent to one pack of cigarette (based on 200 puffs/pod), the cost on the company's website is \$5.75 per pack equivalent. However, based on US scanner data, JUUL refills cost \$4.18 (vs. \$6.15 per pack of cigarettes).

Exhibit 9: JUUL device and pod refills

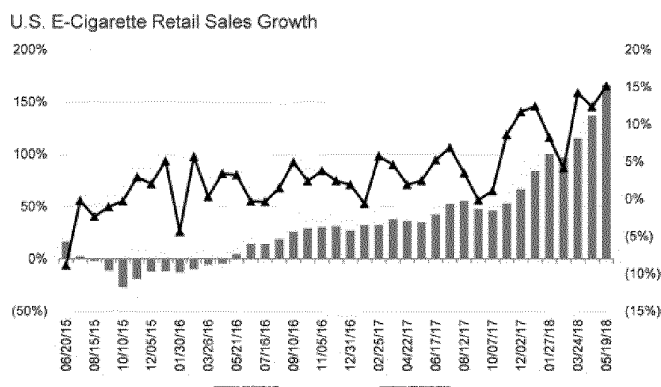


Source: Juul.com

A Framework for Quantifying JUUL's Impact to Cigarette Volumes

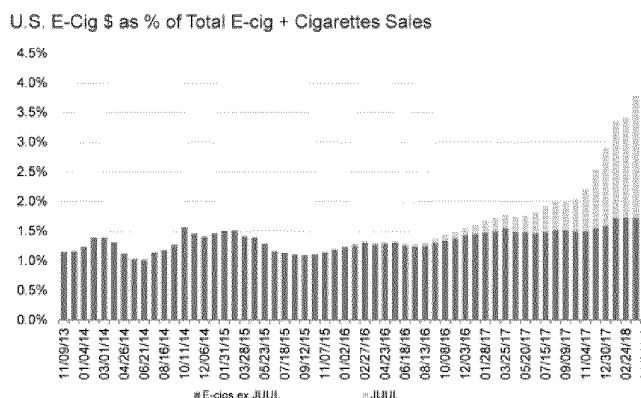
JUUL's success is driving a revival in the US e-cig market, which had tepid sales growth in 2014-16 due to existing technologies' shortcomings in broadly satisfying smoker preferences. However, JUUL has proven to be a formidable competitor, contributing to a meaningful acceleration in e-cig category sales growth to +49% in 2017 and +100% in 2018 YTD within measured channels. Specifically, JUUL accounted for almost the entire incremental increase in US e-cig sales as a percent of total cigarette and e-cigarette sales in the last year (Exhibit 9). Within measures channels, which only capture a portion of JUUL's sales, it held 3.5% share cigarette volumes in the L4-W compared to only 50 bps in 2017.

Exhibit 10: E-cig sales growth accelerated throughout 2017 and remained strong in 2018



Source: Nielsen xAOC+C, Morgan Stanley Research

Exhibit 11: E-cig growth is driven by JUUL's success, with e-cigs holding 4.1% \$ market share



Source: Nielsen xAOC+C, Morgan Stanley Research

We believe that JUUL contributed 10-20 bps to decelerating cigarette volumes in 2017.

We estimate that the industry's volume declines worsened in 2017 due to several headwinds including a ~75-100 bps impact from California's outsized excise tax increases in (\$2.00/pack) as the state accounts for ~7% of the smoker population and retail prices rose 40% and a potential 10-20 bps impact from JUUL given it grew rapidly off of a low base in 2017. 1Q18 industry volumes remained elevated (-5.5%) due to lapping inventory loading ahead of California's price increase last April and we believe 2Q18 industry volumes should begin to normalize toward 3-4% annual declines but will remain at the low end of the industry's volume declines.

In our view, JUUL will be an ~100 bps annual headwind to US cigarette volumes in 2018-22.

In particular: 1) we believe that JUUL is sourcing a portion of its user base from existing smokers; 2) there is a correlation between regions where JUUL market share momentum is accelerating and US cigarette volume declines are accelerating; and 3) JUUL captured a 3.5% share equivalent of US cigarette volumes with limited, but growing distribution. Below, we provide a framework to quantify its potential impact if these growth rates continue and in our base case, see a ~100 bps headwind to annual cigarette volumes.

1) JUUL growth is partly sourcing from cigarette sales

JUUL refills grew from 0.5% of cigarette volumes in 2017 to 3.5% in the last month.

Based on JUUL's sales within US scanner data in 2017, the company sold 55 MM refills, which have ~200 puffs each and equate to one pack of cigarettes according to the company's website. These volumes are not completely comparable to cigarettes given the way in which they are used differs, as e-cig smokers draw strength varies and users can take a few puffs at a time. Applying the company's conversion rate, JUUL volumes in 2017 equate to 0.5% of total cigarette volumes within measured channels and have grown meaningfully to 3.5% of total cigarette volumes in May. JUUL's sales in measured channels also understate their sales given e-cigs are also sold online (~30% total sales) and at vape shops, which are not included in scanner data.

Exhibit 12: Accelerating cigarette volume declines coincided with increasing JUUL growth

Cigarette Volumes - YoY vs. JUUL Penetration (L4W)

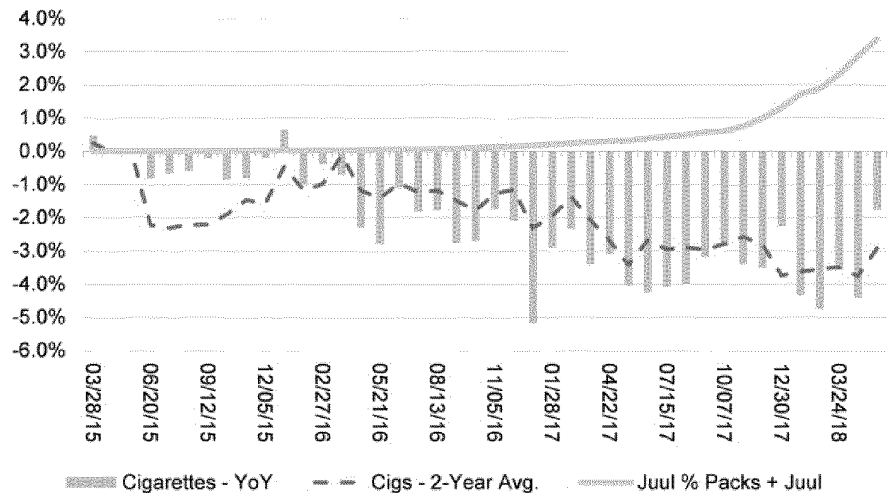
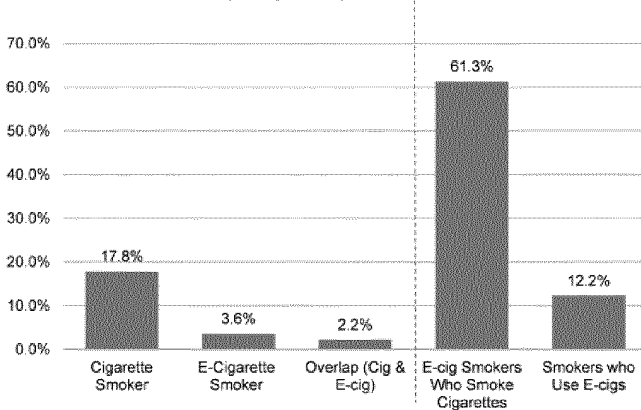


Exhibit 13: MRI survey data suggests 61% of e-cig users also smoke cigarettes

Incidence Past 12 Months (% Population)



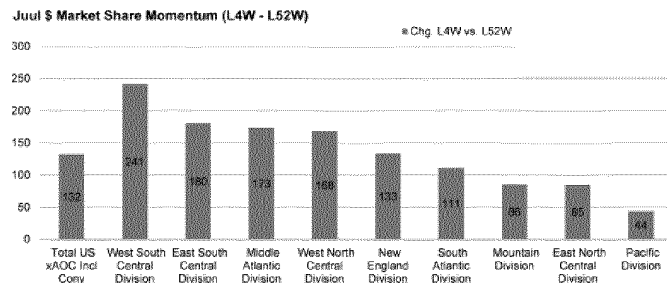
Source: MRI, Morgan Stanley Research

We believe JUUL also appeals to existing smokers. Press reports scrutinizing JUUL's growing popularity focus on its youth appeal, including to students in high school and college. We believe that JUUL also appeals to smokers given its high nicotine concentration (5% by volume), discrete design, and range of flavors. Our discussions with adult JUUL users suggest that smokers are using JUUL for a variety of reasons, including as means of smoking cessation, and are dual using the product in order to cut down on their cigarettes consumption and in situations where smoking is prohibited. These smokers believe that JUUL is contributing to a reduction in the number of cigarettes they consume. In addition, our analysis of MRI survey data indicates that 61% of e-cig users also smoke cigarettes, suggesting prevalent dual usage among e-cig users.

Cigarette volume declines are worsening in regions where JUUL's share momentum is accelerating. JUUL's impact on cigarette

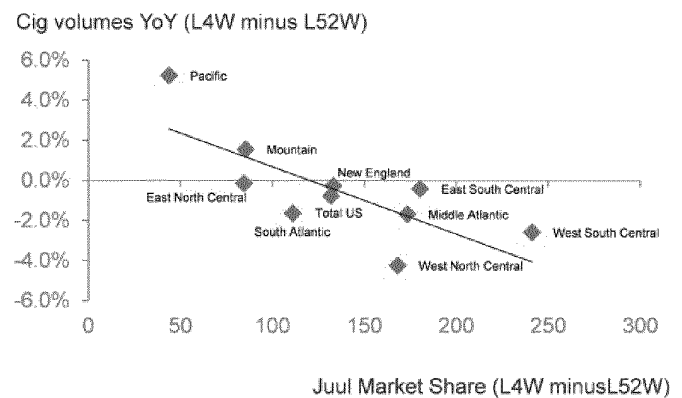
volumes is apparent in regional scanner data, which indicates that cigarette volume declines are increasing in regions where JUUL's market share momentum is accelerating. For example, JUUL's YoY share momentum accelerated the most (+240 bps YoY in L4W ended 4/21/18 vs. L52W) in the West South Central census division, where cigarette volume decelerated by 260 bps. While there may be a number of factors contributing to accelerating declines in these regions, JUUL appears to be an incremental headwind.

Exhibit 14: JUUL's market share momentum is accelerating throughout the country



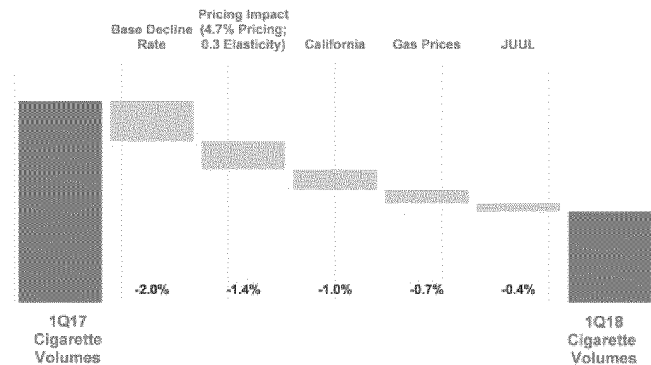
Source: Nielsen xAOC+C, Morgan Stanley Research

Exhibit 15: Accelerating JUUL share momentum has coincided with accelerating cigarette volume declines



Source: Nielsen xAOC+C, Morgan Stanley Research

Exhibit 16: We estimate JUUL contributed up to ~40 bps to cigarette volume declines in 1Q18



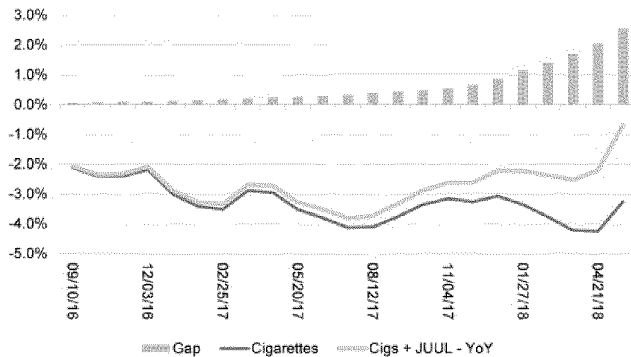
Source: Nielsen xAOC+C, Morgan Stanley Research

We estimate ~20% of JUUL's volumes are sourcing from cigarettes. A large part of JUUL's volume growth has been incremental to the cigarette and e-cigarette category as combined cigarettes and JUUL volumes only declined 0.7% YoY in the last three months in US Scanner while on a standalone basis, cigarettes declined by 3.2%. In order to gauge how much of JUUL's growth is coming at the expense of cigarette volumes, we decomposed the drivers behind MO's -5.5% industry volume decline estimate in 1Q18 (which was worse than the 3.2% decline evident in Nielsen data). We assume a baseline decline of 3.4% reflecting 2% secular declines and a 1.4% impact from pricing (4.7% pricing at -30% elasticity). We estimate California was a 100 bps headwind and higher gas prices were a 66 bps headwind based on our regression analysis. This suggests JUUL could have accounted for up to 40 bps of the decline. Multiplying 1Q17

cigarette volumes by JUUL's 40 bps impact suggests up to ~10 MM packs could have been displaced by JUUL in 1Q18. In 1Q18, JUUL sold ~45 MM refills, and dividing the packs displaced by total JUUL volumes equates to ~22% of JUUL sales coming at the expense of cigarettes (i.e. its "cannibalization rate"). Since the entire 40 bps gap in 1Q18 cigarette volume declines may not reflect JUUL's impact, we assume its cannibalization rate ranges from 10-20% of its volumes sourcing from cigarettes.

Exhibit 17: We estimate ~20% of JUUL's growth is coming at the expense of cigarettes

Volumes YoY - Cigarettes + JUUL (L12W)



Source: Nielsen xAOC+C, Morgan Stanley Research

Exhibit 18: % JUUL volumes sourcing from cigarette volumes

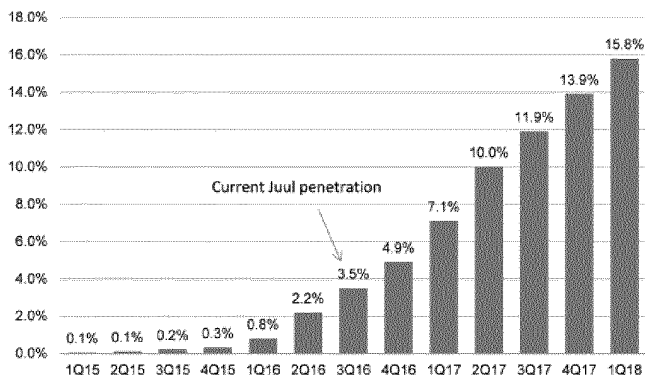
JUUL Cannibalization Rate	
Cigarette Packs (1Q17)	2,332.3
JUUL Headwind to Cigarette Volumes in 1Q18	-0.4%
JUUL Impact to Cigarette Volumes in 1Q18	-10.0
Total JUUL Refills Sold (1Q18)	44.9
% JUUL Refills Impacting Cigarettes	22.4%

Source: Nielsen xAOC+C, Morgan Stanley Research

We estimate JUUL was a 10 bps headwind to US cigarette industry volume declines in 2017 but this has grown in recent periods. To check our cannibalization rate assumption, we considered a range of JUUL cannibalization rates to quantify the potential impact to cigarette volumes. If JUUL's cannibalization rate were high (70-100%), the impact to cigarette volumes in the last four weeks would exceed their actual decline (-1.8%) and would account for more than half of cigarette volume decline assuming a 30%+ cannibalization rate. As a result, we are comfortable with a ~20% cannibalization rate, which would have been a 35-45 bps drag on overall volumes in the last four and twelve weeks. In 2017, this suggests a moderate 10 bps headwind to overall cigarette volumes since JUUL's growth accelerated in recent months.

2) We estimate a ~100 bps headwind to annual cigarette volumes from JUUL

JUUL is experiencing unprecedented market share gains within both the e-cig category and relative to cigarettes overall, making it is difficult to benchmark it's potential market share of total cigarette volumes over time. Extrapolating its current ~50 bps in monthly share gains relative to cigarette volumes, suggests it could end 2018 with ~7% share of total cigarette volumes and reach 30% share of cigarette volumes by the end of 2022 (though we use a more conservative assumption in our base case).

Exhibit 19: iQOS captured 15.8% market share in Japan within three years**iQOS Market Share (Japan)**

Source: Company data, Morgan Stanley Research

We use heat-not burn as a benchmark for JUUL's potential

penetration in the US. To gauge JUUL's potential impact on cigarette volumes, we used iQOS/heat-not-burn ("HNB") products' success in Japan as a benchmark. HNB products captured 21% share of the Japanese cigarette market within two years of a national launch. Moreover, essentially all of iQOS' growth has come at the expense of cigarette volumes, which declined 13% in 2017 and 15% in 2018 YTD. While we recognize that Japan is a unique market given consumers' interest in gadgets/innovation and limited availability of e-cigs, it can serve as a gauge for JUUL's growth potential in the US.

In our view, JUUL can be a ~100 bps annual headwind to industry volumes over the next five years.

As a baseline, we assume US cigarette volumes would decline by 3.5% annually, prior to JUUL's impact to the category, and measure JUUL's annual market share

relative to this baseline volume figure. We estimate JUUL will end 2018 with ~7.0% market share (vs. 3.5% today) of cigarette volumes in measured channels as its share is growing by ~50 bps per month, which would mean that it gained 6.0% share this year. In our Base case scenario, we make several assumptions to gauge its potential impact to cigarette volumes:

1) JUUL volumes represent 15% of baseline cigarette volumes by 2022: This reflects our assumption that its volume share gains of cigarette volumes will moderate starting in 2019, and that it will end 2019 at 10% share of total cigarette volumes in measured channels versus 7.3% in 2018 (and 3.5% today). We assume its share of baseline cigarette volumes approaches 15% by 2022, reflecting 2% annual share gains, which is likely conservative given its still in limited distribution.

2) JUUL's distribution mix shifts towards measured channels: According to Euromonitor 31.8% of e-vapor sales occurred in non-measured channels in 2017, such as vape shops and online. We assume that JUUL's distribution mix increasingly shifts towards measured channels given its expansion at convenience stores and that by 2022, 16% of its sales occur in non-measured channels.

3) JUUL sources an increasing percentage of its volumes from cigarette volumes: Based on our analysis of 1Q18 cigarette volume declines, we estimate that 22% of JUUL's volumes are sourced from cigarettes. We would expect this percentage to increase over time due to growing JUUL awareness and distribution. We assume that by 2022, 40% of its volumes will source from potential cigarette volumes.

On a combined basis, we expect total JUUL and cigarette volumes to grow 0.9% in 2018 and 2019, but to begin to decline by 1.5%-2.5% annually starting in 2020. This results in an incremental ~115 bps headwind to annual cigarette volume declines starting in 2018 with the greatest impact in 2019 as JUUL gains critical mass.

Exhibit 20: Cigarette Industry Base Case

	2015	2016	2017	2018E	2019E	2020E	2021E	2022E
Cigarettes								
Baseline Cigarette Volumes (Sticks, billion)	270	264	253	244	236	227	219	212
Packs (mill.)	13,495	13,176	12,649	12,206	11,779	11,367	10,969	10,585
YoY Chg	(0.3%)	(2.4%)	(4.0%)	(3.5%)	(3.5%)	(3.5%)	(3.5%)	(3.5%)
Cigarette Volumes Measured Channels (Packs)	11,044	10,818	10,456	10,090	9,737	9,396	9,067	8,750
YoY	-0.5%	-2.0%	-3.4%	(3.5%)	(3.5%)	(3.5%)	(3.5%)	(3.5%)
% Total	82%	82%	83%	83%	83%	83%	83%	83%
Cigarette Volumes Non-Measured Channels (Packs)	2,451	2,358	2,193	2,117	2,043	1,971	1,902	1,835
YoY		-3.8%	-7.0%	-3.5%	-3.5%	-3.5%	-3.5%	-3.5%
% Total		18%	17%	17%	17%	17%	17%	17%
JUUL Refills								
JUUL Refills - Measured Channels	1	7.51	55	434	841	1,034	1,179	1,312
YoY Chg		1175%	637%	683%	94%	23%	14%	11%
% of Baseline Cigarette Volumes in Measured Channels	-	0.1%	0.4%	4.3%	8.6%	11.0%	13.0%	15.0%
Ending Share			1.3%	7.3%	10.0%	12.0%	14.0%	16.0%
JUUL Refills - Non-Measured Channels	0	5	26	202	340	359	310	246
YoY Chg		1474%	468%	683%	68%	6%	-14%	-20%
% Sales in Non-Measured Channels (Euromonitor)	32.9%	37.7%	31.8%	31.8%	28.8%	25.8%	20.8%	15.8%
% of Baseline Cigarette Volumes in Non-Measured Channels	0.0%	0.2%	1.2%	9.6%	16.7%	18.2%	16.3%	13.4%
Total JUUL Refill Sales	1	12	81	636	1,181	1,393	1,488	1,559
YoY Chg		1273%	574%	683%	86%	18%	7%	5%
% of Baseline Cigarette Volumes	0.0%	0.1%	0.6%	5.2%	10.0%	12.3%	13.6%	14.7%
JUUL - % Volumes Sourced From Cigarettes				22.0%	26.5%	31.0%	35.5%	40.0%
JUUL Refill Volumes Sourced From Cigarettes	0	8	1	140	313	432	528	623
Cigarette Volumes Post JUUL (Packs)	13,495	13,176	12,648	12,066	11,466	10,935	10,441	9,962
YoY Chg in Cigarette Volumes	(0.3%)	(2.4%)	(4.0%)	(4.6%)	(5.0%)	(4.6%)	(4.5%)	(4.6%)
Incremental Decline				-110 bps	-148 bps	-113 bps	-102 bps	-109 bps
Combined Volumes	13,496	13,188	12,730	12,842	12,960	12,760	12,457	12,144
YoY Chg		(2.3%)	(3.5%)	0.9%	0.9%	(1.5%)	(2.4%)	(2.5%)
JUUL Share of Combined Volumes				5.0%	9.1%	10.9%	11.9%	12.8%

Source: Nielsen xAOC+C, Morgan Stanley Research

However, we believe it is prudent to look at a range of market share and cigarette cannibalization rate scenarios to quantify the impact that it can have on cigarette volumes. Below, we highlight the key assumptions behind our Base, Bull, and Bear case scenarios for the cigarette industry. In Exhibit 22, we show a broader framework for potential market share and cannibalization scenarios.

Exhibit 21: JUUL cigarette volume impact scenarios

Assumptions	Current	2018E	Bull	2022E Base	Bear
JUUL Volume % Baseline Cigarette Volumes (pre-JUUL impact)	3.5%	5.2%	4.9%	14.7%	30.9%
JUUL % Volumes Sourcing from Cigs	22.0%	22.0%	22.0%	40.0%	50.0%
Average Annual Headwind to Cigarette Volumes (2018-22E)			-110 bps	-21 bps	-116 bps

Source: Company data, Morgan Stanley Research

Exhibit 22: Average annual headwind to cigarette volumes from JUUL market share and cannibalization rate scenarios from 2018-2022

		JUUL Share of Cigarette Volumes by 2022					
JUUL Cannibalization Rate	481 bps	5%	10%	15%	20%	25%	30%
	10%	-9 bps	-19 bps	-29 bps	-39 bps	-48 bps	-58 bps
	20%	-19 bps	-39 bps	-58 bps	-78 bps	-98 bps	-119 bps
	30%	-29 bps	-58 bps	-88 bps	-119 bps	-149 bps	-180 bps
	40%	-39 bps	-78 bps	-118 bps	-159 bps	-201 bps	-243 bps
	50%	-49 bps	-98 bps	-149 bps	-201 bps	-254 bps	-307 bps
	60%	-58 bps	-118 bps	-180 bps	-243 bps	-307 bps	-373 bps
	70%	-68 bps	-139 bps	-211 bps	-286 bps	-362 bps	-441 bps
	80%	-78 bps	-159 bps	-243 bps	-329 bps	-418 bps	-510 bps
	90%	-88 bps	-180 bps	-275 bps	-373 bps	-475 bps	-581 bps
	100%	-98 bps	-201 bps	-307 bps	-418 bps	-534 bps	-654 bps

Source: Nielsen xAOC+C, Morgan Stanley Research

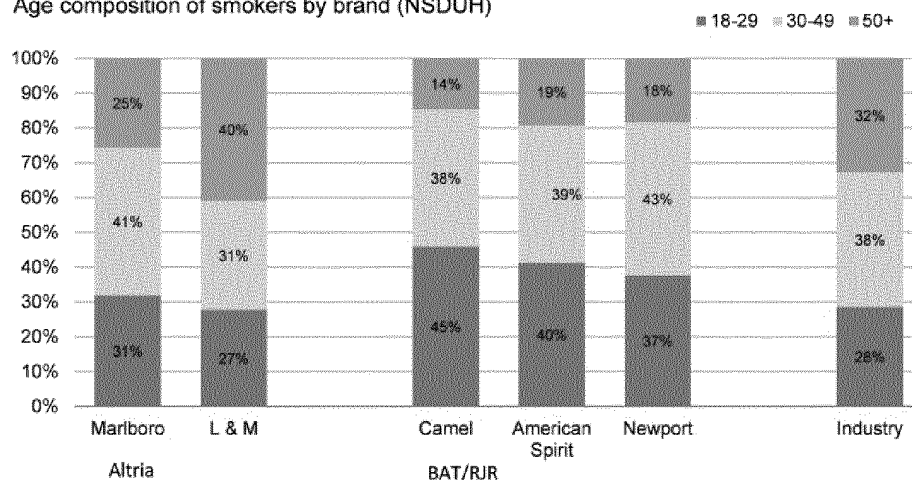
3) MO and BAT both exposed to growing JUUL share

MO and BAT are both exposed to growing JUUL share as BAT/RJR's portfolio skews towards a younger demographic but MO is starting with a higher overall market share.

While the media and regulators are focusing on JUUL's appeal to younger demographics, it is unclear what percentage of JUUL's users they actually represent. Looking at cigarette brand demographics, RJR/BAT's portfolio over-indexes to younger smokers aged 18-29, which account for 45% and 37% of Camel and Newport smokers, respectively. The 18-29 age group accounts for 31% of Marlboro smokers, as the brand has a greater mix of 30-49 (41%) and 50+ (25%) smokers. As a result, BAT/RJR's portfolio may be more susceptible to growing JUUL usage among youth but Marlboro has leading share among 18- to 29-year-olds (44.6%) and is therefore vulnerable to volume pressure from growing JUUL/e-cig adoption.

Exhibit 23: BAT/RJR's portfolio skews toward a younger demographic

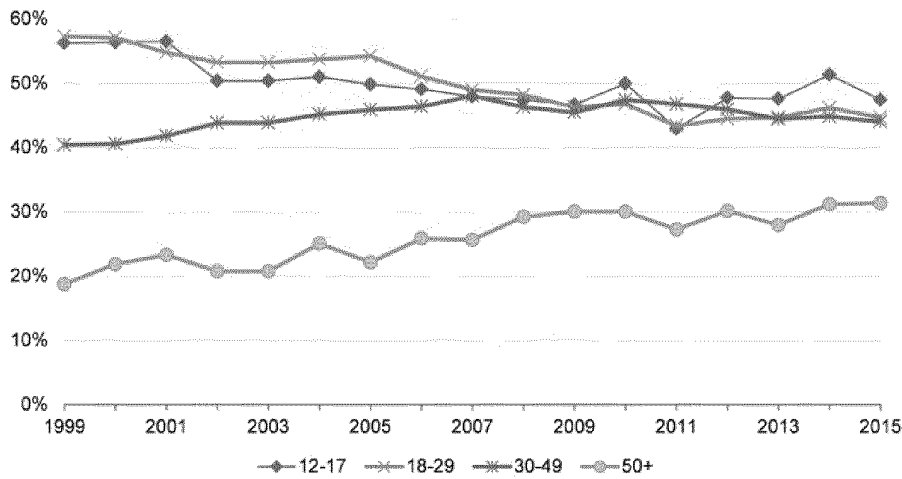
Age composition of smokers by brand (NSDUH)



Source: NSDUH 2015 survey, Morgan Stanley Research

Exhibit 24: Marlboro has leading share across age groups

Marlboro US Market Share (% primary brand) by Age Range



Source: NSDUH, Morgan Stanley Research

Limited Regulatory Options for Mitigating JUUL's Growth

We do not expect the FDA to take targeted measures against JUUL. JUUL is subject to the FDA's Deeming Regulations, which extended the FDA's authority to e-cigarettes in 2016. As part of the regulation, manufacturers are required to submit by August 8, 2022, a Pre-Market Tobacco Application (PMTA) for e-cigs that have come to market prior to August 8, 2016. In the meantime, these products can remain on the market while the agency reviews the applications. If the FDA denies an application, the company would have to withdraw its product from the market. Since these regulations apply to JUUL, we do not believe the FDA will take harsher, targeted action against JUUL prior to reviewing its application. However, if the company launched any of its flavors after the August 8, 2016, deeming date (and the FDA can prove it did so), then the FDA could order JUUL to remove these products from the market. Ultimately, we believe a more likely outcome will be some limits on JUUL's flavor offering.

The FDA will seek to balance its nicotine reduction agenda in cigarettes with preventing youth nicotine addiction. The FDA recognizes that there is a continuum of risk among nicotine products, and that e-cigs can play a role that facilitating smoker cessation as the FDA pursues its agenda to reduce nicotine to nonaddictive levels in cigarettes. As part of its regulatory policy, the FDA could limit JUUL's appeal by: i) more strictly enforcing its sale to minors, ii) limiting its flavor offering and it has already issued an Advanced Notice of Proposed Rulemaking to understand the role that flavors play in attracting youth to tobacco products and facilitating adult smokers to switch to less harmful tobacco products, and/or iii) denying its PMTA.

JUUL is facing increased regulatory scrutiny given concerns about youth appeal.

Growing concerns about JUUL, as well as other e-cig usage among underage youth, is prompting an increasing regulatory focus. This April, the FDA announced a number of measures against youth access to JUUL and other e-cigs, including: i) citing retailers for selling JUUL to minors, ii) conducting a large-scale undercover nationwide blitz to identify stores and online retailers selling JUUL, iii) enforcing online JUUL sales to minors, and iv) sending a request for information to JUUL requiring the company to submit documents to understand its appeal to youth including information on JUUL's marketing strategy, research on health impact, ingredients and design features. However, we believe these actions reflect the FDA's efforts to encourage greater self-policing among e-cig manufacturers to prevent youth usage.

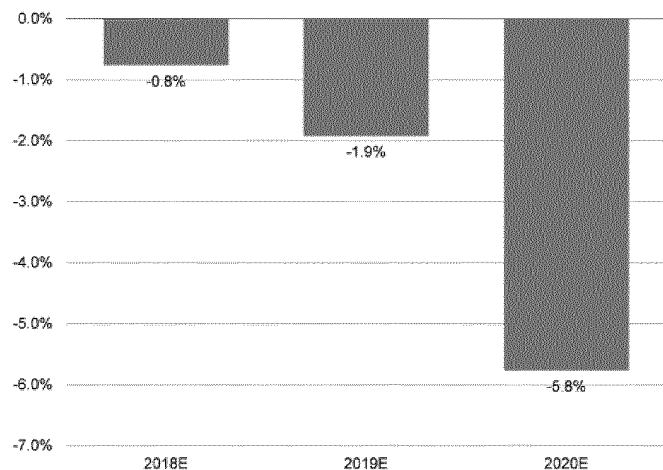
Moving MO to a MSD EPS Algorithm in 2020

JUUL's success enhances risk to MO's topline outlook and increases reinvestment

needs. Growing JUUL adoption enhances risk to MO's volume trajectory and ability to sustain 4-5% net pricing, and could result in elevated costs as the company increases investment to innovate in RRP's and defend its cigarette volumes. Given this increased risk, we are reducing our outlook for 2019-22 volume declines by ~100 bps annually, to -4.5% below the low end of the industry's historical 3-4% declines. Moreover, we expect it to become increasingly difficult for MO to sustain its 7-9% EPS growth algorithm as volumes continue to decline and further cost reduction becomes elusive. Beyond 2019, we see 5-6% EPS growth as more achievable.

Exhibit 25: MS vs. Consensus EPS, 2018-20E

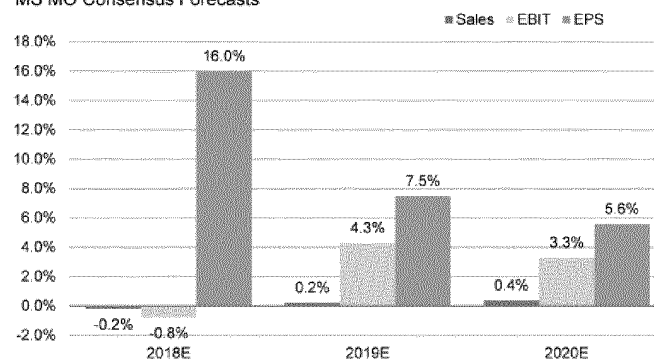
MS vs. Consensus EPS



Source: Thomson Reuters, Morgan Stanley Research

Exhibit 26: We see MO moving to a MSD algorithm in 2020

MS MO Consensus Forecasts



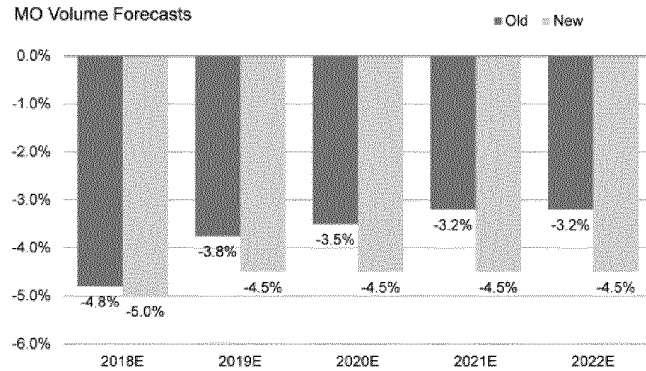
Source: Thomson Reuters, Morgan Stanley Research

1) Reducing topline forecasts to reflect potential for accelerating JUUL adoption

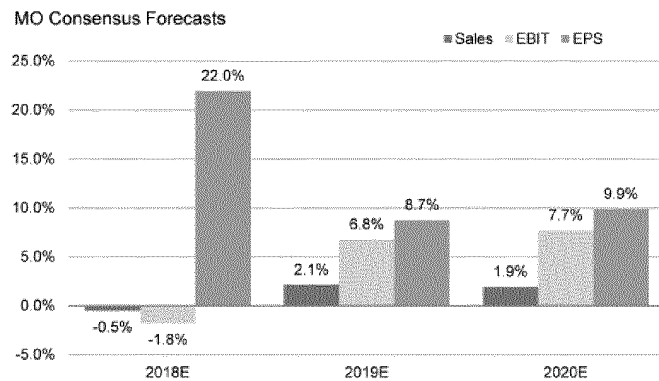
We are reducing our forecasts for MO's five-year volume declines by 100 bps on average, given potential for greater JUUL adoption.

In 2018, we expect MO's volumes to decline 4.8%, reflecting a 2% secular decline rate, 110 bps impact from pricing elasticity (+3.7% pricing), a ~75 bps headwind from higher gas prices, ~100 bps headwind from accelerating JUUL adoption. Beyond 2018, we are reducing our volume forecasts by ~100 bps to reflect higher JUUL market share, to -4.5% annually reflecting a scenario in which JUUL share of baseline cigarette volumes approaches 15% by 2022 and the product has a 40% cigarette cannibalization rate.

Current MO consensus forecasts are optimistic about a reversion towards normalized industry volumes declines in 2019-2020. Consensus forecasts reflect the expectation

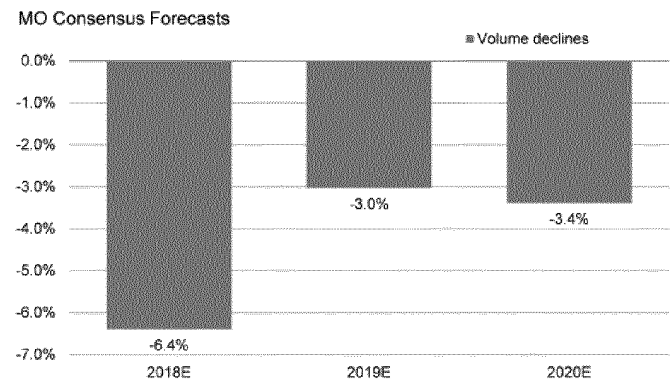
Exhibit 27: We are reducing our MO volume forecasts


Source: Company data, Morgan Stanley Research

Exhibit 28: MO consensus forecasts reflect sustained delivery on its EPS growth algorithm


Source: Thomson Reuters, Morgan Stanley Research

nt EPS growth algorithm, which targets 7-9% EPS growth should continue over the next three years. Applying our revenue forecasts for MO's segments excluding PM USA, we believe the Street is modeling 5.7%, 5.0%, and 5.4% revenue growth at PM USA in 2018-20. Assuming 4.5% net pricing, this implies consensus estimates reflect 6.4%, 3.0% and 3.4% annual volume declines in 2018-20, but would suggest stronger volumes in the event of more moderate 3.5-4.0% net pricing. We believe the consensus 2018 volume outlook appears conservative (MSe -4.8%) as MO will be lapping a period of elevated declines in the back half of 2018 (-7.6% in 2H17). However, we see risk to the 2019-20 consensus outlook.

Exhibit 29: Consensus forecasts are optimistic about a moderation in 2019-20 volume declines


Source: Thomson Reuters, Morgan Stanley Research

We believe MO's strong pricing power remains intact in the midterm, but increasing RRP adoption could increase pricing elasticity. The cigarette industry has a significant amount of pricing power, with MO generating 4.5% net pricing growth on average in 2010-17. We believe the industry maintains strong pricing power given cigarettes' high affordability in the US and rational competitive landscape. We have not seen evidence of a weaker cigarette pricing environment, as MO took an earlier than usual price increase this March, and reported 4.7% net pricing in 1Q18. We expect net pricing to increase 3.7% in 2018 and by 3.5% in 2019-22. However, the proliferation of viable RRP substitutes, which currently maintain a tax advantage relative to cigarettes could increase the category's historical 30% price elasticity.

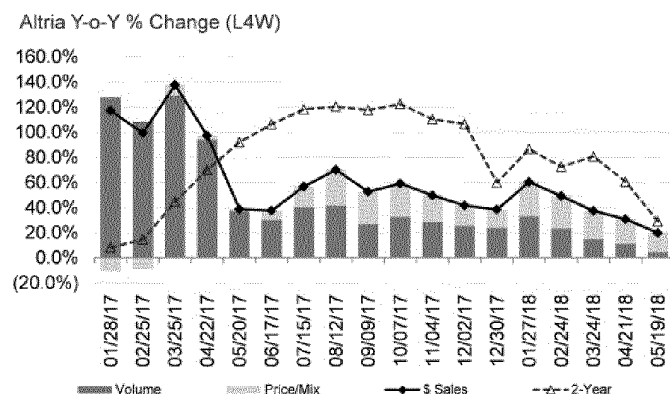
2) Increasing reinvestment needs behind combustibles and RRP

MO's 2018 outlook reflects increasing investment in both combustibles and reduced-risk products (RRPs). MO is reinvesting one-third of its US tax reform savings (~16-17% benefit to EPS) behind RRP innovation and expansion, preparations for the IQOS launch, regulatory science, greater cigarette marketing investment, and enhanced retail fixtures. Within cigarettes, the company is investing in product expansion (e.g., Marlboro Ice national expansion in 1Q18), packaging innovation, and Marlboro promotions (Points West rewards program in Texas) to stabilize its market share performance. MO is also investing behind Nat's expansion into 13 additional states starting in June. Given these increased investments, PM USA OCI declined by 1.8% in 1Q18, its first decline in at least 10 years and drives our full-year forecast of a -1.3% decline.

MO is also increasing investment behind its portfolio strategy to RRP. MO is actively addressing the RRP opportunity through a portfolio approach to the category as consumer preferences are likely to vary. The company has a broad spectrum of vapor products, including both closed (MarkTen Bold with higher nicotine and Apex, which uses PM's MESH technology) and open systems, and the acquisition of a 100-store chain of vape shops to generate further learnings. In addition, MO is pursuing introducing heated tobacco in the US through IQOS. These investments are contributing to MO's e-cig sales growth (+29%45% L12W/L52W) in measured channels.

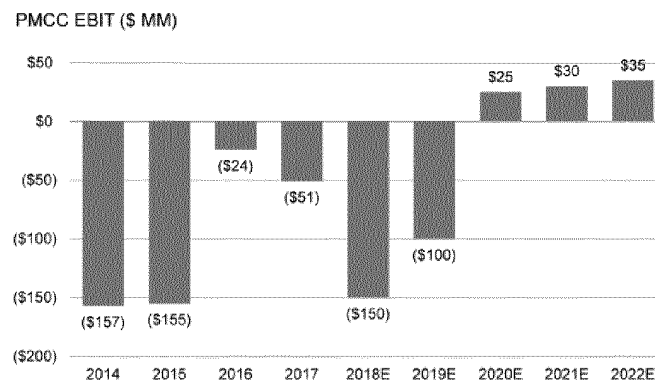
Given these investments, the All Other segment will likely weigh on profitability over the next several years. MO's investments in RRP are reflected in the All Other segment, where we expect increasing losses in 2018 driven by its vapor innovation, and preparations for the IQOS US launch. We forecast \$150 MM and \$100 MM loss in the PMCC/Other segment in 2018 and 2019, versus a \$24 MM and \$51 MM loss in the prior two years. We currently forecast a improving profitability in PMCC in 2020 but this segment could remain a drag on profitability if MO has to more aggressively invest behind these initiatives.

Exhibit 30: MO (MarkTen) E-cig Sales YoY



Source: Nielsen xAOC+C, Morgan Stanley Research

Exhibit 31: PMCC/All Other EBIT outlook



Source: Company data, Morgan Stanley Research estimates

MO should be able to sustain its 7-9% EPS algorithm in the midterm, but we see 5-6% long-term growth as more likely. We expect MO's EPS to grow 16% in 2018, in line with the company's guidance for 15-19% growth, reflecting a benefit from tax reform. In 2019, we expect EPS to grow 7.5%, within the company's long-term target for 7-9% growth as

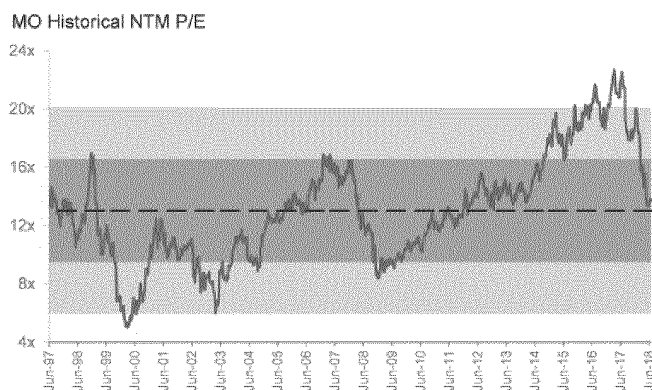
MO laps elevated 2018 investment spending. Beyond 2019, it will become more difficult in our view for the company to sustain growth in-line with its algorithm due to on ongoing volume declines (MSe -4.5%) and the need to continuously cut cigarette controllable costs in order to sustain MSD OCI growth in PM USA. While we expect lower All Other losses to benefit EBIT, we believe 5-6% long-term EPS growth is likely.

3) Structural concerns keep us Equal-weight

We remain EW as we have concerns about the sustainability of MO's HSD growth algorithm. While we believe the company should deliver on its outlook in 2018 and sustain HSD EPS growth in 2019 as it will be lapping elevated 2018 investment, we believe that EPS growth should moderate towards MSD growth beyond 2019 due to accelerating volume declines (MSe -4.5%), higher investment needs, and more elusive cost savings. We believe it will become increasingly difficult for MO to maintain its category dominance as the tobacco industry and consumer preferences evolves towards a more fragmented and complex product offering. As a result, we are 2.0% and 5.5% below 2019 and 2020 consensus EPS forecasts.

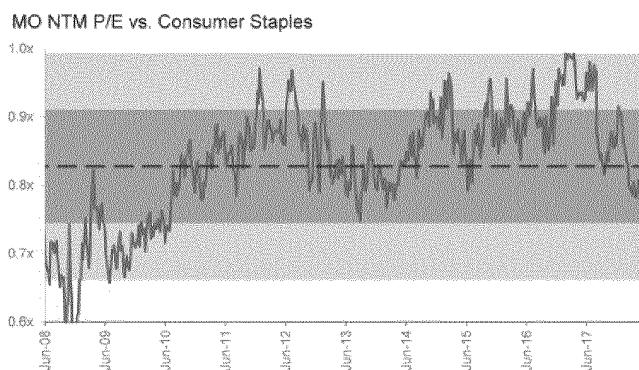
We see a widening risk-reward given the stock's re-rating. MO's shares are down 20% YTD and valuation has meaningfully de-rated over the last year (from 22x NTM P/E in June 2017 to 13.1x today) and the stock is now trading at ~25% discount to Staples (at 17.0x 2019e P/E), approximately 1-standard deviation below its 10-year 15% discount to Staples. Our \$63 PT is based on 15.0x 2019e EPS a 10% discount to Staples peers in-line with the company's 5-year average discount. We are Equal-weight as we see a widening risk-reward reflecting a range of JUUL impact scenarios.

Exhibit 32: MO's NTM P/E contracted from 22x in June 2017 to 13x today



Source: Thomson Reuters, Morgan Stanley Research

Exhibit 33: MO is trading 1-std deviation below its historical discount to Staples



Source: Thomson Reuters, Morgan Stanley Research

Financials

Exhibit 34: MO Annual Income Statement

\$ millions, except per share	2014	2015	2016	2017	2018E	2019E	2020E
Gross Sales	24,522	25,403	25,744	25,576	25,249	25,042	24,876
Excise Taxes	6,577	6,580	6,407	6,082	5,791	5,542	5,305
Net Sales	17,945	18,823	19,337	19,494	19,458	19,501	19,572
Cost of Goods Sold	7,758	7,837	7,734	7,543	7,490	7,199	6,923
% of Net Sales	43.2%	41.6%	40.0%	38.7%	38.5%	36.9%	35.4%
Gross Profit	10,187	10,986	11,603	11,951	11,968	12,301	12,649
margin %	56.8%	58.4%	60.0%	61.3%	61.5%	63.1%	64.6%
SG&A	2,299	2,278	2,224	1,922	2,016	1,923	1,930
% of Net Sales	12.8%	12.1%	11.5%	9.9%	10.4%	9.9%	9.9%
Operating Companies Income	7,888	8,708	9,379	10,029	9,953	10,379	10,719
Operating Margin	44.0%	46.3%	48.5%	51.4%	51.1%	53.2%	54.8%
Goodwill	20	21	21	22	22	22	22
General corporate expense	241	237	222	212	210	206	202
EBIT	7,627	8,450	9,136	9,795	9,721	10,151	10,496
Interest & other debt expense, net	808	817	747	694	745	719	719
Equity income	(1,026)	(889)	(666)	(692)	(925)	(1,077)	(1,163)
Pre-tax income	7,845	8,522	9,055	9,793	9,901	10,509	10,940
Taxes	2,711	3,018	3,133	3,273	2,327	2,470	2,571
Effective Tax Rate %	34.6%	35.4%	34.6%	33.4%	23.5%	23.5%	23.5%
Net Income continuing opps	5,134	5,504	5,922	6,520	7,574	8,040	8,369
EPS from continuing operations	\$2.60	\$2.81	\$3.03	\$3.42	\$3.97	\$4.27	\$4.50
Basic Shares, Ending	1,978	1,965	1,952	1,905	1,891	1,867	1,841
Average Diluted Shares	1,978	1,962	1,952	1,905	1,908	1,884	1,858
% Growth							
Volume (Actual)							
Volume	(3.0%)	0.5%	(2.5%)	(5.1%)	(5.0%)	(4.5%)	(4.5%)
Net Sales	1.6%	4.9%	2.7%	0.8%	(0.2%)	0.2%	0.4%
Gross Profit	1.6%	7.8%	5.6%	3.0%	0.1%	2.8%	2.8%
OCI	2.1%	10.4%	7.7%	6.9%	(0.8%)	4.3%	3.3%
Pre-tax income	5.5%	8.6%	6.3%	8.2%	1.1%	6.1%	4.1%
Net Income	7.8%	7.2%	7.6%	10.1%	16.2%	6.1%	4.1%
EPS	8.9%	8.1%	8.1%	12.8%	16.0%	7.5%	5.6%
Buy Backs						1.3%	1.5%
Ratio Analysis							
COGS/Sales	43.2%	41.6%	40.0%	38.7%	38.5%	36.9%	35.4%
Gross Margin	56.8%	58.4%	60.0%	61.3%	61.5%	63.1%	64.6%
SG&A/Sales	12.8%	12.1%	11.5%	9.9%	10.4%	9.9%	9.9%
EBIT Margin	48.2%	49.6%	50.7%	53.8%	54.7%	57.6%	59.6%
Pretax Margin	43.7%	45.3%	46.8%	50.2%	50.9%	53.9%	55.9%
Net Margin	28.6%	29.2%	30.6%	33.4%	38.9%	41.2%	42.8%

Source: Company data, Morgan Stanley Research estimates

Exhibit 35: MO Balance Sheet

\$ millions, except per share	2014	2015	2016	2017	2018E	2019E	2020E
Consumer Products Assets:							
Cash & Cash Equivalents	3,321	2,369	4,569	1,253	720	591	506
Accounts Receivable	124	124	151	142	160	160	161
Total Inventory	2,040	2,031	2,051	2,225	2,241	2,254	2,267
Other Current Assets	1,393	1,562	489	724	724	724	724
Total Current Assets	6,878	6,086	7,260	4,344	3,845	3,730	3,658
Property Plant & Equipment at Cost	4,755	4,877	4,835	4,879	5,088	5,307	5,538
Less: Accumulated Depreciation	2,772	2,895	2,877	2,965	3,154	3,351	3,557
Net PP&E	1,983	1,982	1,958	1,914	1,934	1,956	1,981
Intangible Assets	12,049	12,028	12,036	12,400	12,378	12,357	12,335
Goodwill	5,285	5,285	5,285	5,307	5,307	5,307	5,307
Investment in SAB Miller / Sampoerna	6,183	5,483	17,852	17,952	17,952	17,952	17,952
Cash in Escrow deposits	-	-	-	-	-	-	-
Other	483	432	513	386	356	322	283
Total Consumer Products Assets	32,861	31,296	44,904	42,303	41,773	41,624	41,516
Finance Assets	1,614	1,239	1,028	899	786	688	601
Other Assets	-	-	-	-	-	-	-
Total Financial Services Assets	1,614	1,239	1,028	899	786	688	601
Total Assets	34,475	32,535	45,932	43,202	42,559	42,311	42,118
Liabilities and Shareholders' Equity:							
Accounts Payable	416	400	425	374	372	358	345
Accrued Expenses	5,229	5,564	5,762	4,296	4,162	4,043	3,970
Other Liabilities	1,028	1,110	1,188	1,258	1,258	1,258	1,258
ST Debt Plus Current Maturities of LT Deb	1,000	4	-	864	864	864	864
Total Current Liabilities	7,673	7,078	7,375	6,792	6,656	6,523	6,436
Long Term Debt	13,693	12,915	13,881	13,030	12,030	12,030	12,030
Deferred Income Taxes	6,088	5,663	8,416	5,247	5,247	5,247	5,247
Postretirement Benefits	2,461	3,522	3,022	2,432	2,432	2,432	2,432
Minority Interest	-	-	-	-	-	-	-
Other Liabilities	1,515	447	427	283	283	283	283
Financial Services Liabilities	-	-	-	-	-	-	-
Total Liabilities	31,430	29,625	33,121	27,784	26,648	26,515	26,428
Redeemable noncontrolling interest	35	37	38	38	38	38	38
Common Stock	935	935	935	935	935	935	935
Paid in capital	5,735	5,813	5,893	5,952	5,952	5,952	5,952
Earnings Reinvested in business	26,277	27,257	36,906	42,251	44,244	46,130	48,022
Accumulated other comprehensive losses	(2,682)	(3,280)	(2,052)	(1,897)	(1,897)	(1,897)	(1,897)
Treasury Stock	(27,251)	(27,845)	(28,912)	(31,864)	(33,364)	(35,364)	(37,364)
Noncontrolling interests	(4)	(7)	3	3	3	3	3
Total Shareholders' Equity	3,010	2,873	12,773	15,380	15,873	15,759	15,651
Total Liabilities and Shareholders' Equity	34,475	32,535	45,932	43,202	42,559	42,311	42,118

Source: Company data, Morgan Stanley Research estimates

Exhibit 36: MO Cash Flow Statement

Cash Flow Statement	2014	2015	2016	2017	2018E	2019E	2020E
Operating Activities:							
Net Income	5,070	5,243	14,244	10,227	7,591	8,045	8,342
Depreciation	188	204	183	187	189	197	206
Amortization	20	21	21	22	22	22	22
Total Depreciation and Amortization	208	225	204	209	211	219	227
Deferred Income Taxes	(129)	(132)	3,119	(3,126)	-	-	-
Changes in Working Capital:	(188)	240	(300)	(2,159)	(171)	(146)	(100)
Receivables	(8)	3	(27)	10	(18)	(0)	(0)
Total Inventory	(184)	(33)	(34)	(171)	(16)	(12)	(14)
Other Current Assets	3	-	-	(1,638)	-	-	-
Accounts Payable	(5)	(7)	(6)	(55)	(2)	(14)	(13)
Change in Other and Accrued Liabilities	6	277	(233)	(305)	(134)	(119)	(73)
Other Operating Activities	(298)	234	(13,476)	(229)	30	34	39
Cash from Operating Activities	4,663	5,810	3,791	4,922	7,660	8,152	8,508
Investing Activities							
Capital Expenditures	(163)	(229)	(189)	(199)	(209)	(219)	(230)
Acquisitions and Investments	(102)	-	(1,578)	(415)	-	-	-
Premium Goodwill on Acquisition	-	-	-	-	-	-	-
Divestitures	-	-	4,773	-	-	-	-
Other Investing Activities	442	214	702	147	113	99	86
Cash from Investing Activities	177	(15)	3,708	(467)	(96)	(121)	(144)
Financing Activities:							
Cash dividends	(3,892)	(4,179)	(4,512)	(4,807)	(5,598)	(6,160)	(6,449)
Change in current debt	-	(1,793)	-	-	-	-	-
Change in long term debt	174	-	1,043	-	(1,000)	-	-
Repurchase of Altria Group Stock- net	-	-	-	-	-	-	-
Repurchase of Kraft Stock	-	-	-	-	-	-	-
Issuance of common stock	(939)	(554)	(1,030)	(2,917)	(1,500)	(2,000)	(2,000)
Other financing activity	(37)	(221)	(800)	(47)	-	-	-
Cash from Financing Activities	(4,694)	(6,747)	(5,299)	(7,771)	(8,098)	(8,160)	(8,449)
Effect of Exchange Rate	-	-	-	-	-	-	-
Cash and equivalents, Beginning	3,175	3,321	2,369	4,569	1,253	720	591
Change in cash and equivalents	146	(952)	2,200	(3,316)	(533)	(128)	(85)
Cash and equivalents, Ending	3,321	2,369	4,569	1,253	720	591	506

Source: Company data, Morgan Stanley Research estimates

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Not-Rated/Hold	53	2%	5	1%	9%	7	0%
Underweight/Sell	533	17%	77	11%	14%	207	15%
TOTAL	3,096		725			1404	

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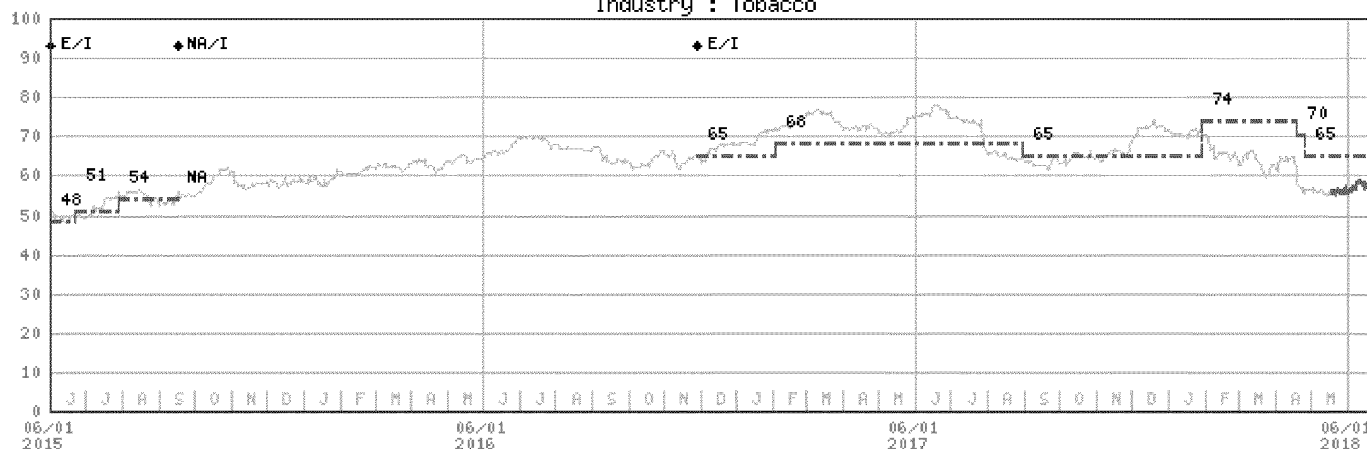
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Industry : Tobacco



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INDUSTRY COVERAGE: Tobacco

COMPANY (TICKER)	RATING (AS OF)	PRICE* (06/25/2018)
Pamela Kaufman, CFA		
Altria Group, Inc. (MO.N)	E (11/29/2016)	\$57.07
Philip Morris International Inc (PM.N)	O (03/31/2008)	\$79.97

Stock Ratings are subject to change. Please see latest research for each company.
* Historical prices are not split adjusted.

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