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Altria (MO)
Tobacco Part 2- More Changes in US Market

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"Smoking kills. If you are killed, you've lost a very important part of your life."

-Brooke Shields

We talked last week about how the basic plan for Altria (MO) and the US cigarette market is to manage the decay of smoking and transition customers toward non-smoking forms of tobacco/nicotine. The plan is to boost prices to offset falling volumes to maintain cash flow. The new products are focused on e-cigarettes/vapor and heated tobacco products. We believe moving from an 85% gross margin product to a new one that is currently much smaller and less profitable holds some significant risks. The new products will face regulation and taxation also. There will be competition from current tobacco companies as well as others that are already here. The largest player is currently JUUL – a private company in San Francisco. Cliff Douglas, the VP for Tobacco Control for the American Cancer Society, stated the following when discussing youth using new e-cigarette products and noting how many there are:

> *"Although JUUL has caught on in a big way, there are a lot of other similar products on the market such as myblu, KandyPens, and PHIX. This trend is evolving rapidly. It's JUUL today, and it may be another product a few months from now."*

The risk for income investors in US tobacco companies is they already have a very high payout ratio of free cash flow for the dividends. If the market decay does accelerate, the cash flow squeeze could hit quickly. **The numbers show that the decline in US cigarette volumes has accelerated again.**

y/y change in volume	2017	2016	2015	2014	2013	2012	2011
US cigarettes	-4.4%	-2.4%	0.1%	-3.4%	-4.9%	-2.2%	-3.1%

We don't like to use quarterly data because the timing of tax and price increases can impact shorter-term numbers as distributors tend to buy ahead of higher prices and it can then bounce back the following period. California had a significant excise tax hike of $2 per pack in April 2017, which hurt 2017 results but actually didn't help 2016 much. **We will point**

out that Altria raised prices again in 2018 and while the industry bounced back to -1.4% volume losses in 1Q18, MO saw a 4.1% decline. It lost 50bp of market share with Marlboro and 70bp of share overall. The company attributes some of this to the *Malboro Ice* rollout as well. This is after losing 40bp of share in 2017. So, Altria is seeing volume declines and market share declines.

Just yesterday, the US Centers for Disease Control found that only 13.9% of the US population still smokes cigarettes. That is down from 15.5% in 2016 and down from about 40% since 1970.

After reading the plans by the new FDA (US Food & Drug Administration) Commissioner, Dr. Scott Gottlieb, and comments from several health studies it appears that the decay for smoking may be about to accelerate significantly based on more rapid quitting and fewer kids taking up cigarettes. As we will discuss, some of the figures being considered based on test cases could make the volume of cigarettes sold fall by double-digit percentages in coming years. We will again point out that we do not expect this to happen in 2018 and perhaps not much in 2019, but the build-up to major changes in the market appears more likely. That alone could drive more negative news for the industry and pressure the stock price and the dividend. Moreover, it will cause analysts to model three things in valuing the stock: a higher discount rate to reflect more risk, lower future cash flows, and no (or very low) terminal value for the cigarette business. Each would hurt the forecasted value for the stock price.

This report should be read in conjunction with last week's piece on Altria as it covers different topics.

> **Altria brands are losing market share.** The company has enjoyed good growth when many once top-10 brands were being essentially liquidated. With that process largely over, Marlboro is losing share, so Altria is seeing volume decay that exceeds the industry.
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> **Price hikes may be losing steam.** The latest price hike for MO was smaller than last year. One data point does not make a trend, but it may be pointing out that the essentially 20-cent price hike in 2017 was the aberration and as market share falls, smaller pricing gains may be the norm.
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> **The FDA is focusing on cigarettes as being the most harmful way to deliver nicotine.** Its goal is not to necessarily eliminate tobacco or nicotine – but it

does want to transition more people away from cigarettes and has several plans under discussion.

Cutting nicotine levels is one potential new part of the plan. The idea is to reduce nicotine levels in cigarettes to the point they do not deliver enough to get a new smoker hooked or enough to satisfy a current smoker prompting both to drop cigarettes altogether. This is a potential bomb for cigarette companies as the FDA is looking at studies that show by reducing nicotine, 5 million smokers could quit in the first year and 13-million over 5-years. That's 16%-40% of the smoking market in the US.

Eliminating menthol as an additive. This has been openly discussed before and the FDA has deferred. Now, the EU is phasing out menthol by 2020 and other countries have joined in such as Canada, Brazil and Turkey. San Francisco and Oakland have both banned menthol now. Studies show menthol has played a role in making smoking pleasant enough to get new smokers started and current smokers to smoke more often. E-cigarette flavors are under fire now – can menthol be spared again?

Keeping kids away from nicotine and e-cigarettes is a big focus for the FDA. Right now, cigarettes are losing customers each year, but gaining new young smokers to offset the decay. Studies show that 90% of smokers start by age 18 and only 1% after age 26. Cutting menthol could play a big role in preventing teen smoking. However, the FDA is also cracking down on e-cigarettes to prevent them from becoming the gateway product to get kids addicted to nicotine. This should also cause smoking volumes to decay as the replacement demand is under attack.

Forecasting these potential changes on Altria shows a cash flow squeeze could develop. The company's dividend at current growth rates will start to approach $6 billion per year. The company has never had that much free cash flow even after the boost from the tax rate cut. We isolated just cigarette cash flow changes based on different rates of volume decay and price increases. It appears cash flow will start to decline after a few years under most circumstances not involving some of the new FDA changes under consideration. If some of the new FDA plans happen, the study forecasts would quickly cut MO's cash flow.

The Current Situation:

We addressed last week that excise taxes and the settlements over state healthcare costs are consuming a huge part of the revenue generated by the tobacco companies. We noted that as taxes rise, the cost of cigarettes to the consumer also increases and that hurts volumes. Despite that, the companies were continually seeking minor price increases as well to offset the negative volume growth.

Our first fear is what if these companies can no longer take market share from lesser brands? The competition appears to set up for a battle among larger brands and that should make it tough for all the players to even hold market share – not to mention taking it. And it does not bode well for ever-higher prices at a time companies are looking to take/hold market share. There simply isn't much market share left to take. We found a review of market share for top US brands from 2002-2013 in an abstract from the National Institutes of Health. If you want to understand how Marlboro, Camel, Newport, Pall Mall and American Spirits all have been taking market share to mask the decay of the smoking market – then look at some of these brands in the US:

	Doral	GPC	Kool	Salem	Virginia Slims	Winston	Total
2002 Market Share	6.77%	2.64%	3.10%	2.32%	2.92%	3.91%	21.66%
2013 Market Share	0.73%	0.34%	1.58%	0.96%	0.59%	2.11%	6.31%
Lost Share	6.04%	2.30%	1.52%	1.36%	2.33%	1.80%	15.35%

Over those 11-years, these brands shed over 15-percentage points of market share, ending up with just over 6% in 2013. They simply cannot lose much more. That may be why many of the other brands have stalled on picking up share since 2013:

Market Share	2017	2016	2015	2014
Marlboro	43.3%	43.7%	43.8%	43.8%
Camel	+	8.2%	8.3%	8.2%
Pall Mall	-	7.7%	7.9%	8.1%
Newport	+	13.9%	13.5%	12.9%
Am. Spirit	+	2.2%	1.9%	1.5%
Other MO Premium	2.7%	2.8%	2.8%	2.9%
MO Discount	4.7%	4.6%	4.5%	4.2%

Since being acquired by British American Tobacco, which operates worldwide, the Reynolds American operations for the US only are lumped together in reporting. We did not find 2017 sales results by brand beyond Pall Mall lost share, Camel/Newport/American Spirit gained share and the company as a whole added 0.2% of market share in the US. Basically, Newport and menthol brands are gaining share – which we will discuss more later – while non-menthol is essentially losing share or, at best, staying largely flat. This table represents about 83% of the US cigarette market. A goal of taking market share from other areas is simply less likely now in our view.

The standard case for cigarettes with both companies is managing the decay with price hikes as volumes fall. In the case of Marlboro, Altria is seeing volume declines that exceed the industry's faster decay via market share losses. Also, price hikes were essentially 14-cents per pack in 2015 and 2016, then about 20-cents in 2017. In early 2018, the price hike was only 9-cents (there are often two increases per year), but the rate of increase has now started to fall also. That is even more pronounced as the 9-cent boost is off a higher price already, so the percentage increase is falling.

The FDA's Four-part plan

The FDA's basic plan calls for first acknowledging that cigarettes are the most harmful way to deliver nicotine. The second part sets out to make cigarettes less desirable and cause more people to quit altogether. The FDA envisions helping more people quit by transitioning them to other nicotine delivery mechanisms like gum, patches, or e-cigarettes. Where the FDA and the tobacco companies differ is the FDA doesn't view this transition to be a life-long move. It is believed that many people, who do not quit on their own, will quit after a relatively short time using one of these helpers. And fourth, the FDA will focus heavily on preventing kids from taking up all forms of nicotine delivery including vapor, e-cigarettes, smoking, and snuff. The numbers show that teens make up nearly all the new smoking customers and preventing them from taking up all forms of nicotine is expected to eliminate replacement smokers from ever starting.

Dr. Scott Gottlieb is the current FDA commissioner and he has made several pronouncements on these four goals in his first year on the job. We will highlight some of this as we explore each part in more detail and focus on risks to US tobacco companies.

Focusing on Cigarettes as the Problem

Dr. Gottlieb gave a presentation on how he wants to deal with tobacco in July 2017. In it, he pointed out that it would be a net positive in terms of health benefits if people found other ways to deliver nicotine.

> *"The overwhelming amount of the death and disease attributable to tobacco is caused by addiction to cigarettes.* ***Addiction causes long-term sustained use. But it's exposure to the harmful chemicals that cause disease.*** *Cigarettes are the only legal consumer product that, when used as intended, will kill half of all long-term users."*

> *"Nicotine is astonishingly addictive. And when nicotine is attached to cigarette smoke particles, it's not only highly addictive, but an addictive chemical mix of disease and death.* ***One feature critical to cigarettes is the efficiency by which they deliver nicotine. And inhalation is the key. A cigarette can deliver the inhaled nicotine through the lungs and to the brain in less than 10 seconds, adding to its addictive potential.*** *But the nicotine in cigarettes is not directly responsible for the cancer, lung disease, and heart disease that kill hundreds of thousands of Americans each year.*

In March 2018, Dr. Gottlieb followed up on this issue noting that:

> *"Given their combination of toxicity, addictiveness, prevalence and effect on non-users, it's clear that to maximize the possible public health benefits of our regulation, we much focus our efforts on the death and disease caused by addiction to combustible cigarettes."*

So, the studies he is looking at show cigarettes as being one of the fastest and most efficient ways to deliver nicotine as well as being the most dangerous way given the other chemicals that enter the body via smoking.

Making Cigarettes Less Attractive – Lower Nicotine Levels

The plan that is being laid out is to cut nicotine levels in cigarettes to the point where they do not create a nicotine addiction. At the same time, people who want to quit would be able to still get higher doses of nicotine via patches or gum or moving to some e-cigarettes. The goal would be to get them into a situation where they cannot get as much nicotine from smoking, so they get it from a safer delivery source, then reduce their usage over time, and eventually leave the nicotine world completely.

Some people would stay forever, but the FDA is not envisioning a chiropractor situation where many people claim to be cured but just need ongoing treatment for 30-years. That's one problem the tobacco companies have moving people away from cigarettes - they may not last as customers much longer after the move. Even above, the FDA noted that cigarettes deliver nicotine fast and efficiently. E-cigarettes, patches, etc. many not have the same level of impact and help people transition away from cigarettes – but may prove less popular for long-term use.

Here is Dr. Gottlieb in June 2017:

> *"Armed with the recognition of the risk continuum, and the reality that all roads lead back to cigarettes as the primary cause of the current problem,* ***we need to envision a world where cigarettes lose their addictive potential through reduced nicotine levels."***
>
> *"I've followed the compelling discussion—both the public discourse and within the Agency—of* ***FDA's potential to render cigarettes minimally addictive or non-addictive by regulating their nicotine levels.*** *I've seen the science in this area and believe it holds much promise."*
>
> ***"Looking at ways to reduce nicotine levels in cigarettes so that they are minimally or non-addictive, while not altering the nicotine content of noncombustible products such as e-cigarettes, is a cornerstone of our new and more comprehensive approach to effective tobacco regulation. <u>And Congress has made clear that FDA has this authority</u>.*** *As I see it, taking the next step and addressing nicotine is not just within our authority; it's an enormous public health opportunity and falls squarely within FDA's mission."*

In March of 2018, Dr. Gottlieb introduced the plan for comments:

> *"When I returned to the U.S. Food and Drug Administration last year, it was immediately clear that tackling tobacco use – and cigarette smoking in particular – would be one of the most important actions I could take to advance public health. With that in mind,* ***we're taking a pivotal step today that could ultimately bring us closer to our vision of a world where combustible cigarettes would no longer create or sustain addiction –*** *making it harder for future generations to become addicted in the*

first place and allowing more currently addicted smokers to quit or switch to potentially less harmful products. As part of our comprehensive plan on tobacco and nicotine regulation announced last summer, we're issuing an advance notice of proposed rulemaking (ANPRM) to ***explore a product standard to lower nicotine in cigarettes to minimally or non-addictive levels.*** *This new regulatory step advances a comprehensive policy framework that we believe could help avoid millions of tobacco-related deaths across the country."*

"Today's ANPRM is a significant step in our efforts to confront nicotine addiction in combustible cigarettes. *This milestone places us squarely on the road toward achieving one of the biggest public health victories in modern history and saving millions of lives in the process."*

In March, he asked for comments to be submitted by June 14. Much of the debate here is also focusing on whether to cut nicotine levels all at once or do it gradually. Actually, reducing the level seems fairly likely in the future. He also reiterated that Congress has given the FDA the authority to regulate nicotine levels with its mandate in the Family Smoking Prevention and Tobacco Control Act.

Here's the bomb that could go off as a result of reducing nicotine levels:

1. According to Dr. Gottlieb and FDA research – 2/3 of smokers have said they want to quit, "*We must also acknowledge the evidence that shows the majority of cigarette smokers are concerned about their health and about two-thirds of adult smokers have stated they want to quit. They know it's hard, and they've probably tried many times to quit with over half of adult smokers making an attempt to quit each year."*

2. In the March 2018 release, the FDA pointed to new research that will soon be published in the New England Journal of Medicine that found cutting nicotine levels in cigarettes could lead to 5 million smokers quitting in the first year. That figure could grow to 13 million within five years.

We're going to look at the numbers a few ways. The CDC believes there are essentially about 30 million adult US smokers over the age of 18. The retail market of cigarettes sold was 230 billion in 2017. Losing 5 million smokers in one-year is 16% of the market and that could rise to over 40% in five-years.

The other way to look at this is about 230 billion cigarettes were bought in 2017. Assuming 5 million people who would quit in a year are smoking 10-cigarettes per day on average, that's 18 billion cigarettes or 8% of the market. Assuming 20-cigarettes or 1 pack per day, that's 36 billion or 16% of the market in one year.

We think this represents a potential *iPhone* moment. The use of film was dropping annually, and people could see the decay at Eastman Kodak for many years as people moved to digital cameras. People were actually taking more photos, but simply not using film. The decay rates accelerated even more when cameras became standard features on cell-phones and Kodak, that managed its decay by running the business for cash flow to buy back stock and pay dividends, could no longer offset the decay quickly enough.

The cigarette industry has been seeing 2%-4% volume drops per year for some time, but we doubt they are prepared to see 8%-16% rates of decay in a single year or 40% over five-years.

FDA - Part Three- Preventing New Smokers from Using Cigarettes or Nicotine

We do not have good numbers on how many new people start smoking each year. This is important because while we know overall US citizens are smoking less, some of the decline is being offset by new smokers taking up cigarettes. So, if demand falls 3%, it could well be that 5% of smokers quit and 2% more started, resulting in the net 3% drop.

The numbers we have seen are 2,300 kids under 18-years old smoke their first cigarette each day. However, we don't know how many become addicted as a result. Dr. Gottlieb added some more color on this with these comments:

> "Almost all adult smokers started smoking when they were kids. Nearly 90 percent started smoking before the age of 18, and 95 percent by age 21. If you make it to age 26 without smoking, the odds are overwhelmingly in your favor that you won't become a smoker. Only about 1 percent of cigarette smokers start at that point or later in their lives."

The FDA is attacking smoking at this end of the spectrum too. This could further intensify the drop in smoking levels because there will be fewer replacements to offset the decay. **The studies on reducing nicotine levels point to millions more who will not take up smoking because they won't become addicted in the first place over several years.** That alone would let the decay curve accelerate further. The prevention plan here has two other parts and focuses hard on important areas for the tobacco companies – menthol and e-cigarettes.

Menthol – Flavoring Additive

While menthol has never been considered addictive, it makes the tobacco smoother and easier to smoke for new users. It has been noted that menthol makes it easier for smokers to inhale more deeply and perhaps get more nicotine per cigarette. Its impact is also like a cough drop and soothes irritations caused by tobacco smoke potentially allowing people to smoke more often. 75% of young smokers say the first tobacco product they ever smoked was flavored. The FDA has noted that young smokers are disproportionately more likely to use menthol cigarettes than non-menthol. Moreover, the FDA has also seen that teens, which experiment with smoking, are more likely to become hooked if they are smoking menthol cigarettes than those who do not.

It has long been a target by several members of the FDA over many years. The debate has already resulted in other flavors being banned – which are now reappearing in e-cigarettes and vaping. But, menthol has escaped because it is not seen as causing addiction. We think this time may be different.

First of all, menthol cigarette sales remain the only mild bright spot in the industry as the rest of tobacco has had negative growth for years. We are going to use Newport the largest menthol cigarette brand as a proxy.

	2016	2015	2014	2013	2012
Newport share of retail market	13.90%	13.50%	12.90%	12.60%	12.00%

Source: MSAi (Management Science Association Inc) industry data found in 2016 Reynolds American 10-K and Lorillard's 2014 10-K

This does not mean that Newport grows in total volume all the time either, it just continues to gain market share in a shrinking market. *Forbes,* in reporting on the roll-up of Reynolds and Lorillard in 2015 noted that menthol was growing and Newport had 37% of the menthol market, Altria's Marlboro Menthol had 18%, and Reynolds Camel Menthol had 12%. We do not have firm numbers on various categories within brands. However, all the companies have mentioned positive gains from menthol versions of their premium brands.

The goal of the FDA is to reduce smoking overall. Menthol looks like an exception to the downward trend already in place. And, it's an additive, not something occurring naturally in tobacco. Also, the enormous focus on preventing kids from smoking has led to the targeting of nicotine and flavors for e-cigarettes. This will make it tougher to lobby for menthol as the argument will have to be "berry flavors are not addictive, and neither is menthol, but we are again going to ban berry flavors and allow the continued use of menthol." Also, how do they deny menthol has some role in stronger sales? Studies point to menthol smokers being younger and smoking more frequently – two items the FDA is trying to discourage.

The FDA is also debating menthol already. It launched a study into determining if menthol is helping more young people become smokers and could that be prevented if it was not added to cigarettes or e-cigarettes. This started in March 2018.

The other thing working against menthol is bans are already happening. The European Union is phasing it out with a total ban in 2020. Bans in Canada came in 2017. A study in JAMA Internal Medicine from March 2018 found that "The initial results suggest that removing menthol tobacco from the market is a feasible strategy that may influence cessation behavior." More people quit smoking than predicted when the ban first went into effect. Brazil, Nigeria, Turkey, and Moldova have passed menthol bans too. Oakland, CA banned menthol in September 2017. San Francisco banned it in June 2018. New Jersey has written legislation to ban it this year also.

E-cigarettes – Keeping Away from Kids

The FDA and the tobacco companies are on the same page for initial adoption of vapor/E-cigarettes when it comes to adults. When it comes to current smokers, the FDA wants them to get nicotine in a safer manner and, as noted above, considers cigarettes the most harmful delivery method. Again, here is Dr. Gottlieb:

> ***[We had this quote earlier too but makes the point here as well]***
>
> ***"Looking at ways to reduce nicotine levels in cigarettes so that they are minimally or non-addictive, while not altering the nicotine content of noncombustible products such as e-cigarettes, is a cornerstone of our new and more comprehensive approach to effective tobacco regulation.*** *And Congress has made clear that FDA has this authority. As I see it, taking the next step and addressing nicotine is not just within our authority; it's an enormous public health opportunity and falls squarely within FDA's mission."*
>
> *"As we move forward, I also hope that we can all see the potential benefits to addicted cigarette smokers, in a properly regulated marketplace, of products capable of*

delivering nicotine without having to set tobacco on fire. The prospective benefit may be even greater for the subset of current cigarette smokers who find themselves unable or unwilling to quit."

The FDA has also highlighted nicotine gum, lozenges and patches to remain available to help people stop smoking. However, the FDA's goal is not to have someone chewing nicotine gum or using e-cigarettes for 20 years. They see the ultimate goal as getting people off of nicotine altogether. This is a fairly strong position laid out by Dr. Gottlieb,

"I've pledged a deep commitment to taking aggressive steps to address the epidemic of addiction to opioids. I view our opportunity to confront addiction to nicotine with the same obligation. I'll pursue efforts to reduce addiction to nicotine with the same vigor."

With that in mind, the new FDA focus is very intent on keeping kids away from vapor and e-cigarettes altogether. They are excited that youth smoking is declining but worry that e-cigarettes can become a gateway to nicotine addiction for teens. It noted that 2.1 million youth used e-cigarettes last year – that's more than smoked. Also, e-cigarettes have more appeal to youth than adults. Dr. Gottlieb has stated:

"Tobacco companies shouldn't be building businesses that rely on getting kids hooked to nicotine."

"Youth exposure to nicotine – whether it comes from a cigarette or an e-cigarette – affects the developing brain and may rewire it to become more susceptible to nicotine addiction in the future."

"These health opportunities [reducing smoking and getting current smokers to quit nicotine] are put at risk if all we do is hook another generation of kids on nicotine and tobacco products through alternatives like e-cigarettes."

"If all we end up doing is addicting a whole new generation on nicotine through e-cigarettes, then we will have done a bad service to this country"

"I have real concerns about kids' use of e-cigarettes, and I know many others share those concerns, especially those products marketed with obviously kid-appealing flavors. As soon as the FDA deeming rule went into effect last summer that extended our authority to include ENDS [Electronic Nicotine Delivery Systems], cigars, and all

other tobacco products, FDA started enforcing provisions that, for the first time under federal law, made it illegal to sell all those products to kids."

The FDA is already coming after various e-cigarettes for flavors and labeling that resemble cereal or soda. The agency is going after manufacturers including the largest one JUUL and retailers. It is looking for documents about marketing and research that may be misleading or appealing to kids. The age for buying e-cigarettes is 21 and the FDA is pursuing outlets that are not complying.

Where Does This Leave Altria?

The company is known for its high dividend with annual growth of about 7%. There are about 1.9 billion shares and the dividend is shaping up to be about $5.2 billion in 2018 – based on the quarterly rate of 66-cents rising to 71-cents in the second half of the year. It also assumes the company essentially ends its share repurchases. If they buy more shares, they will need to generate the cash flow to do it (or borrow it). But let's keep this simple and look for 5-years - investor expectations would essentially be something like this:

	2018	2019	2020	2021	2022
Dividend/Share	$2.74	$2.92	$3.08	$3.22	$3.34
Total Dividends paid ($mm)	$5,206	$5,548	$5,852	$6,118	$6,346
Dividend Growth	7.9%	6.6%	5.5%	4.5%	3.7%

The dividend is likely to grow by about $1 billion per year in the near future. The first problem is cash flow from operations at Altria has never been at levels that would cover this. Let's not subtract any payments for acquisitions and here is the prior five years of cash flow:

$ in millions	2017	2016	2015	2014	2013
Cash Ops	$4,922	$3,821	$5,843	$4,663	$4,375
Cap Exp.	$199	$189	$229	$163	$131
Free Cash	$4,723	$3,632	$5,614	$4,500	$4,244
Dividends	$4,807	$4,512	$4,179	$3,892	$3,612

The company didn't cover the dividend the last two years. The changes in the tax law are expected to result in about $1 billion in additional cash flow per year. Altria expects to spend about one-third on acquisitions, marketing, R&D. Let's give them credit for $700 million in additional cash flow after those payments. Suddenly, free cash flow of about $4.5-

$4.7 billion per year would become $5.2-$5.4 billion. That would get Altria through 2018 and 2019.

Plus, the company would be managing its decay with price hikes against lower volumes. The base case looks like it should be a 4% drop in volume and 14-18 cent per pack annual prices increase. We started with 2017 data of 117 billion cigarettes becoming 5.83 billion packs. Smoking revenues less excise taxes works out to be about $2.88 per pack. Operating margin is 50% and the tax rate is 21% (so multiply the lower number of packs sold by the rising price per pack and take 39.5% of that total). Subtract from the year before gives the net cash flow change of this exercise of managing the decay. So, let's look at how this plays out in terms of growing cash flow:

Base Case

	2017	2018	2019	2020	2021	2022
Number Packs	5,830	5,597	5,373	5,158	4,952	4,754
Price per Pack	$2.88	$3.06	$3.24	$3.40	3.56	$3.70
Y/Y Cash Flow Chg	-	$132	$111	$51	$36	-$16
Cum. Cash Flow Chg	-	$132	$244	$295	$330	$315

Again, the cash flow gets more cushion compared to 2017 and it is cumulative. So, in 2018, it rises by $132 million and keeps that $132 million in 2019 when that year adds another $111 million. The net result is the table is showing that annual cash flow compared to 2017 would be $244 and $295 million higher in 2019 and 2020 for example. It rises to about $300 million per year before it starts to see negative changes in 2022. So, cash flow of $4.5-$4.7 billion in 2017 gets bumped $700 million from lower taxes and then gets another $300 million bump from managing the decay. So, cash flow is $5.5-$5.7 billion versus a dividend that would be in the high $5 billion to $6 billion range.

The look of this table is simplistic by design and assumes litigation costs do not increase or material changes to moist snuff, wine, or e-cigarettes. We are trying to show changes to MO's cash flow based solely on changes to cigarette volumes and price levels. We are also not trying to predict exactly when decay may accelerate. Instead, we think the case is being made that smoking rates are already falling, MO is losing market share, and many events are being laid out for the future to boost those problems. So, we would advise readers not to count pennies or look at any one year and instead focus on how quickly MO's cash flow could become impaired as its cash needs increase and how small changes can intensify those impairments.

The next issue is that the base case is likely too optimistic given what is already happening. Altria is losing share faster than the industry by 1%-2%. So what if they see 5% volume declines? The price hikes have already started to fall back. What if 14-cents is the most they can get and that drops to 8-cents?

Erosion with No FDA Case

	2017	2018	2019	2020	2021	2022
Number Packs	5,830	5,539	5,262	4,999	4,749	4,511
Price per Pack	$2.88	$3.06	$3.20	$3.34	$3.44	$3.54
Y/Y Cash Flow Chg	-	$62	-$44	-$56	-$142	-$144
Cum. Cash Flow Chg	-	$62	$18	-$38	-$180	-$324

Here the 5% drop in volume instead of 4% makes a huge impact as the change in cash flow from cigarettes turns negative in 2019. Look at the big drop if the price hike drops to 10-cents instead of 14-cents in 2021 against the volume decay. Cash flow begins to fall from 2017 levels in 2020. **Again, looking at the big picture, assuming no income gains from wine, snuff, e-cigarettes; cigarettes could be a drain on cash flow as the dividend rises with just seeing 1% higher decay in volume and price hikes at 10-cents. That drain would occur in only a couple of years at the same time the cash out flow needs are rising.**

Now factor in some of the FDA plans and their studies of what could happen if nicotine levels are cut and menthol is phased out. Also add in some decay from keeping more young people from starting on nicotine. Let's say in 2019, the decay rate becomes 10% and then 15% and levels off at 8% drops. Let's even give Altria 10-cents per pack in price hikes.

FDA Actions Hit

	2017	2018	2019	2020	2021	2022
Number Packs	5,830	5,539	4,985	4,237	3,898	3,586
Price per Pack	$2.88	$3.06	$3.16	$3.26	$3.36	$3.46
Y/Y Cash Flow Chg	-	$62	-$473	-$766	-$283	-$272
Cum. Cash Flow Chg	-	$62	-$410	-$1,176	-$1,459	-$1,731

If the nicotine reduction forecast for demand is roughly accurate, Altria could be looking at cash flow falling over $1 billion very quickly and then continuing to erode. A menthol ban may not on its own produce this level of destruction, but it would likely take away new youth smokers and the only area in the cigarette market showing any strength. Either case may result in Altria having to cut its dividend.

The other issue the company would need to deal with would be lower cash flows and negative trends would likely cause investors to use a larger discount rate to value those cash flows, which would drive the stock down at even a faster rate. We would also caution people doing full discounted cash flow analysis – cigarettes seem to be more like an oil well than real estate. When the oil is gone, there is no terminal value whereas real estate can be torn down and built into another more desirable property later.

Disclosure

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