

Philip Morris (PM)- Neutral Rating

Philip Morris is definitely a company showing signs of decay in its basic business of selling cigarettes. Following some acquisitions to gain market share in places like the Philippines, Pakistan, Mexico, and Canada in the period of 2007-11, volumes peaked at 927 billion cigarettes in 2012. By 2017, volume had dropped 21.5% and the decline is accelerating:

	1H8	2017	2016	2015	2014	2013
Vol drop %	-3.3%	-6.3%	-4.0%	-0.1%	-2.8%	-5.0%

The company has countered this with price increases and rolling out a new product that heats the tobacco rather than burning it. In fact, the company wants to introduce the heated tobacco to new markets and is actively touting that it will transition to safer tobacco products. We see several potential headwinds for PM.

We are rating it a Neutral for now with the stock already down 34% and the valuation of about 15x EPS. Two of the more immediate risks are slower dividend growth and growing FX problems in our view. The company has already missed forecasts and reduced guidance fairly regularly, so investors are unlikely expecting too much from PM. The rollout of *HEETS* and the *IQOS* System gives the company some initial stocking orders and helps improve volume growth. PM also wants to roll out those products in the US via a deal with Altria. PM is touting its own studies of reduced risk to people who use HEETS over traditional cigarettes and this could enable the company to recover market share in the short-term. Longer-term, we do not think this saves the tobacco market.

We would recommend clients read our EQ Review Rating on Philip Morris first to see several areas where the accounting has been stretched to help cash flow in the last 18 months. It also shows how much the decay in volumes has already tightened the dividend coverage and is only being offset by price increases.

- Higher taxes are likely to continue cutting demand for tobacco. The goal is to make tobacco unaffordable to the poor and after large tax hikes, keep boosting taxes faster than income growth.
- PM has seen higher taxes cut demand in many countries in recent years. Russia is a good illustration of tax hikes, smoking bans, and other restrictions turning a growth market into one that consistently declines annually.
- PM's growth plan is to convert smokers of traditional cigarettes to heated tobacco and boost prices to offset volume decay.
- Heated tobacco is supposed to be paid for with cash flow from traditional cigarettes and produce healthier smokers who remain customers longer.
- We question how much spare free cash flow the traditional cigarette business is still producing and note that the heated tobacco has less nicotine. Studies have shown that lowering nicotine levels can cause smoking rates to crater.
- The Japanese experience shows that heated tobacco allowed PM to gain volume, pricing, and market share in 2017. A similar pop in revenue and earnings could follow the rollout in more markets.
- We question the sustainability of Japan as initial stocking drove much of the gains, competitors are cutting prices, and already revenues and income are declining. Japan also wants to boost taxes on heated tobacco and PM benefited from Japan's laws making it hard to use nicotine in vapor cigarettes.
- Looking at recent results, we think a case can be made that price hikes are already NOT offsetting the decay. Initial stocking of heated tobacco in Japan drove Asian pricing and volumes up. Without that short-lived stocking, income growth may already be negative.

World Health Organization Wants Higher Tobacco Taxes And Countries Have Signed On

The WHO and the World Bank have written copiously on the hazards of tobacco and smoking. Both see smoking as something that hurts all users and bystanders for health

reasons. It also sees it as a reason many poor people stay poor as buying cigarettes consumes a high percentage of their income. Their studies and data have encouraged governments to invoke smoking bans in public places, create minimum legal ages to buy tobacco, and to boost taxes.

The general thinking by making cigarettes more expensive via higher taxes it will simply price many out of the market altogether and cause others to cut back or quit smoking. The World Bank published a [report](#) in September 2017 noting:

- 1) Poor people can least afford to smoke and 80% of the world's smokers are in Low to Middle-Income Countries.
- 2) All countries have joined UN goals to reduce death rates by 30% from non-communicable diseases like cancer, stroke, and heart disease by 2030 – all three with strong ties to smoking.
- 3) Evidence from numerous countries shows a 50% increase in cigarette prices leads to a 20% drop in usage – both existing smokers quitting or smoking less and younger people not starting.

Their recommendations are to boost taxes in a big way and keep doing it. The tax increase needs to exceed income growth and consumers should understand that the tax hikes are not a one-time event. Also, it recommends taxing based on quantity of cigarettes rather than a percentage of price to avoid people trading down to cheaper brands.

The WHO has a recent report on raising taxes specifically for [Indonesia](#) from April 2018. We added this, as Indonesia is the largest market for PM. It is noted that the country has a complex system of low taxes designed to preserve a domestic industry of hand-rolling cigarettes. However, even modest tax hikes hurt consumption and the WHO recommends larger hikes to curb usage.

PM notes that this type of research has already taken hold of its markets and has a sizable impact. From the latest 10-Q:

“Much of the regulation that shapes the business environment in which we operate is driven by the World Health Organization's (“WHO”) Framework Convention on Tobacco Control (“FCTC”), which entered into force in 2005. The FCTC is the first international public health treaty and has as its main objective to establish a global agenda for tobacco regulation, with the purpose of reducing tobacco use. To date, 180 countries and the European Union are Parties to the FCTC. The treaty requires

Parties to have in place various tobacco control measures and recommends others. The FCTC governing body, the Conference of the Parties (“CoP”), has also adopted non-binding guidelines and policy recommendations related to certain articles of the FCTC that go beyond the text of the treaty. It is not possible to predict whether or to what extent measures recommended in the FCTC guidelines will be implemented. We continue to engage in a dialogue with regulators with respect to those measures that we do not believe would protect public health and, if implemented, could disrupt competition, severely limit our ability to market and sell our products (including our RRP) to adult smokers, or increase illicit trade. We advocate for measures that would accelerate switching to better alternatives.”

As a result, there have been many increases in excise taxes on cigarettes, which triggered a drop in demand. Here is just some of PM’s commentary about excise tax actions in the recent years:

2Q18 -- France, down by 12.4%, primarily reflecting the impact of significant excise-tax driven price increases in November 2017 and March 2018; Ukraine, down by 8.6%, primarily reflecting the timing and impact of excise-tax driven retail price increases; Saudi Arabia and the UAE, down by 23.8%, and 28.3%, respectively, reflecting the impact of retail price increases in 2017 and the quarter following the introduction of the new excise tax in June and October 2017, respectively, and VAT in January 2018; Thailand, down by 8.5%, primarily reflecting the impact of excise tax-driven price increases; Australia, down by 11.7%, primarily reflecting the impact of excise tax-driven retail price increases in 2017 and in the first quarter of 2018; Taiwan, down by 57.7%, primarily reflecting the impact of excise tax-driven retail price increases in June 2017; Brazil, down by 8.5%, primarily reflecting the impact of retail price increases in 2017;

2017 -- The estimated total Russian market decreased by 7.2%, reflecting the impact of excise tax-driven price increases; The estimated total Indonesian cigarette market decreased by 2.6%, reflecting a soft economic environment and the impact of above-inflation excise tax-driven price increases; The decline of the estimated total Philippine cigarette market of 6.7% excluding the net impact of estimated trade inventory movements, was mainly due to the impact of excise tax-driven price increases;

2016 -- The decrease in our cigarette shipment volume reflected lower market share, mainly due to Marlboro in Algeria, principally resulting from the impact of excise tax-driven price increases; The estimated total Russian cigarette market decreased by 4.8%, mainly due to the impact of excise tax-driven price increases; Our cigarette shipment volume decreased

by 7.6% to 260.0 billion units, mainly due to: Indonesia; Pakistan, reflecting a lower total estimated cigarette market resulting from excise tax-driven price increases and the growth of illicit trade; the Philippines; and Thailand, primarily reflecting the impact of excise tax-driven price increases in the first quarter of 2016; The estimated total cigarette Philippine market decreased by 12.0%, mainly due to the impact of excise tax-driven price increases; The decline of the estimated total Argentine cigarette market of 11.6% mainly reflected a soft economic environment and the impact of the May 2016 excise tax increase that drove a more than 50% increase in average industry retail prices.

2015 -- The decline of the estimated total North African market was principally due to Egypt, reflecting the impact of excise tax-driven price increases; The decline of the estimated total Russian cigarette market was mainly due to the unfavorable impact of excise tax-driven price increases; The 23.6% decline of the estimated total Korean cigarette market reflected the impact of the January 2015 excise tax increase and related retail price increases; The estimated total Philippine cigarette market decreased by 4.9%, mainly due to the impact of price increases; the total Canadian market declined by 4.6%, mainly due to the impact of tax-driven price increases.

Russia Is A Good Case in Point

Russia decided that having a high percentage of smokers in the population was not a desirable trait. The country was seeing smoking volumes increase until 2007 and started to boost excise taxes. According to a [review](#) looking at the impact of Russian taxes on smoking, the number of packs sold started declining rapidly. Packs sold hit 424 billion packs in 2007 and fell to 398 billion in 2008 and 363 billion by 2012. That's a 14% drop in just a few years. Early on, PM saw huge trading down to cheaper cigarettes such as a 20% drop in Marlboro volumes in 2009 and 11% more in 2010, while its cheaper brand in Russia – Bond St was up 33% and 21% in those years.

That was not enough for Russia who rolled out anti-tobacco measures in 2013. Production of cigarettes fell 20% in 1Q13. In the *The Voice of Russia July 2014*, Marina Lapenkova, Client Business Partner for Alco, Beer and Tobacco group, Nielsen, said, ***“We do expect the market to decline around 10 percent in 2014 year-on-year due to all current regulations. The decline will be mostly triggered by decreasing tobacco points of sale, consumption and growth of illicit trade in Russia.”*** The level of taxes jumped considerably in the future too.

Taxes per pack were 100 RUB in 200 and jumped to 550 RUB. In 2015, the tax rose to 1,250 RUB.

Plus, Russia copied the US too and not only making it more expensive to smoke, but also making it tough to find a place to smoke. In June 2013, Russia banned smoking on trains and planes as well as stations, schools, workplaces, elevators, and state buildings. The state stats group Rosstat claimed smoking rates fell about 12%.

[The first part of the ban](#), which went into effect in June 2013, officially outlawed lighting up in public transport services, train stations and airports, schools, universities, healthcare and sports facilities, workplaces, state administrations premises as well as in elevators and housing block stairwells. Within a year the number of cigarette smokers in Russia decreased by 12 percent, according to the state statistics agency Rosstat. The bans increased noticeably in June 2014. Now, smoking is banned in restaurants, hotels, ships, and public areas in apartment buildings. Street kiosks can no longer sell tobacco and that will also make it tougher for kids to buy cigarettes. It will only be sold in large stores and the government is requiring a minimum price be set so people cannot trade down to cheaper brands to mitigate the tax hike. The large stores cannot have tobacco in public sight at the cash register either.

Other bans included advertising by tobacco companies and prevent them from sponsoring events. Cafes need to post no smoking signs and eliminate all ashtrays. Smoking is not allowed by actors in movies or plays either. This is going to become like the US where the only place someone can smoke is his own house or on the loading dock outside at work. There simply are not enough hours in the day for someone to smoke two packs per day under the new rules. Officials at the Russian Ministry of Health expect that, in 2018, the various measures initiated under the Tobacco Act will have cut the number of smokers in Russia by between 23–25%. PM's negative growth in Russia shows this plan in action.

PM share	1H8	2017	2016	2015	2014	2013	2012
Vol drop %	-11.9%	-7.2%	-4.8%	-6.4%	-3.5%	-6.7%	3.8%

As noted above and in our EQ report on PM, this decay in volume is widespread and in many places accelerating whenever taxes are increased. PM has a two-part plan to counter this – introduce heated tobacco products called HEETs in many markets and raise prices to offset falling volume. We are not sure either plan will be effective for long.

Heated Tobacco – the Safer Cigarette

Much like the US FDA – PM has also concluded and is marketing that much of the cancerous and other health problems come from combustible cigarettes. It means more toxins are inhaled along with nicotine. The company has rolled out a new system where smokers can heat tobacco to get nicotine by inhaling. Because the tobacco is not burning, it reduces many of the other negatives such as second-hand smoke for non-smokers, and according to [PM Studies](#), it cuts harmful and potentially harmful toxins by about 90% compared to regular cigarettes.

The way this works is smokers buy a device called an IQOS and refill it with something that looks similar to a cigarette called a HEET. The IQOS heats the tobacco and the HEET is disposable and is sold like a pack of cigarettes with 20 units inside. The company has found that many smokers did convert to HEETs in Japan in the first year of the rollout. PM's current case to investors is that HEETs will replace combustible cigarettes going forward. Smokers will live longer and use HEETs and thus create more business and cash flow from the current cigarettes will pay for the transition. We see several problems with this plan:

1. What cash flow? As we talked about in our EQ report, PM is forecasting \$9 billion in cash from operations before FX and working capital changes. FX, inventory, and receivables all look to be headwinds for the company to reduce the \$9 billion figure. Capital spending is \$1.5 billion and the dividend is \$7.1 billion now. There just isn't much cash flow to tap.
2. The HEETs have lower nicotine levels. According to PM's research, it presented to the FDA a HEET has 1.2-1.3mg of nicotine vs. a regular cigarette at 1.8mg. We have seen other reports state that regular cigarettes are closer to 2.0mg. In our reports on Altria, we cited the risk that the US FDA wants to decrease the nicotine levels in cigarettes to help people quit altogether and cited studies showing that 16% could quit in one year of reducing nicotine levels and 40% over five years. So reduced nicotine levels in HEETs could actually cause more people to stop smoking altogether – not become safer smokers for a longer time. We have seen other comments that smokers actually get even less nicotine than the 1.2-1.3mg because the delivery mechanism is less efficient and also the heat stick does not last very long. Reducing nicotine seems to be a key way to get people to stop using tobacco completely.

3. There are other groups debating PM's studies about the level of reduced risk. The [Guardian](#) looked at research by Tobacco Control who found unless smokers clean the device thoroughly after each HEET, debris would build up and create more health issues. Also, people may try to increase their puff rate to beat the clock on the shorter HEET life.
4. The Japan Effect – See Next section

IQOS and HEETs in Japan

There was tremendous fanfare when PM rolled out the heated tobacco products in Japan. PM was taking market share, seeing volumes increase, and profits were rising. Here are the volumes for Japan:

Units in bill	2Q18	1Q18	2Q17	1Q17	2017	2016	2015
Cigarette Vol	8.7	8.0	8.3	10.7	234.8	260.0	281.4
Heated Vol	<u>6.4</u>	<u>6.2</u>	<u>5.7</u>	<u>4.1</u>	<u>32.7</u>	<u>7.1</u>	<u>0.4</u>
Total	15.1	14.2	14.0	14.8	267.5	267.1	281.7

So, rolling out heated tobacco accelerated the decay of cigarette volumes, but the total volume actually increased. Looking at it from a revenue and earnings standpoint, it's not as easy to completely isolate Japan. In 2018, it became lumped into a segment called East Asia & Australia and prior to 2018; it was part of a larger segment called Asia. However, the vast bulk of the results given for heated tobacco came from Japan in both cases:

	2Q18	1Q18	2Q17	1Q17	2017	2016	2015
Cig. Rev.	\$822	\$737	\$790	\$813	\$19,325	\$19,865	\$19,434
Heated Rev.	<u>\$656</u>	<u>\$854</u>	<u>\$549</u>	<u>\$396</u>	<u>\$3,310</u>	<u>\$666</u>	<u>\$35</u>
Op. Income	\$498	\$515	\$510	\$472	\$4,149	\$3,196	\$2,886

Heated revenue grew quickly and only recently has it started to disappoint. There are several reasons for this and is **a key issue for us in giving this a Neutral rating at the moment. First, revenue and volumes benefited from initial stocking.** PM sells through distributors for the most part and so it had to fill the channel to support the rollout. That

creates revenue and income before the product is sold on to end consumers. This initial stocking is likely to help results as heated tobacco is introduced in other markets. Second, customers need to buy a device to use the heat sticks in. For PM, this is called an IQOS. It was selling for about 11,000 Yen. By comparison, a pack of Marlboros in Tokyo is about 459 Yen and a pack of heat sticks about \$435-\$460 Yen. So buying the device effectively added the revenue of buying 24 packs of cigarettes as a one-time event for the customer. So considering those two points, something similar seems likely to happen in other new markets in terms of revenue growth.

The next thing to consider with the success in Japan is it is illegal to buy and sell liquids with nicotine in Japan. Thus, vaping is legal but has not taken off like in other countries because it is difficult to do it with nicotine and thus isn't seen as a smoking substitute. That means heated tobacco really only faced competition from regular cigarettes when it was introduced. That helped the IQOS catch-on. It is also important to note that the profit on heat sticks is higher because the tax rate is lower. Japan taxes cigarettes by tobacco weight and has an excise tax of about 240 Yen per pack. The tax on PM's heat sticks is about 225 Yen even though they sell at the same price as regular cigarettes.

These positives are already starting to reverse in Japan. The price of the devices is falling. Japan Tobacco cut its Ploom Tech device to 3,000 Yen down from 4,000 and British American Tobacco is charging \$2,980 Yen on its Glo down from 5,980. PM cut its price for IQOS by 30% to 7,980 Yen. That should reverse some of the revenue and profit gains. Also, the other companies are not taxed as much. Japan Tobacco is paying about 68 Yen per pack and British American about 151 Yen per pack because they contain less tobacco, which is what is being taxed. Those competitors currently have more room to cut prices on refills than PM and take market share back since PM is paying about 225 Yen per pack. The growth of heated tobacco in volume slowed considerably in 2Q18 for PM and the revenue figure fell as well.

Finally, the government is already eyeing tax increases on the heated tobacco. They don't want to give up 240 Yen per pack for a smaller amount and want to raise taxes sooner rather than later. This follows the WHO's recommendations that raising taxes and driving down affordability should be the goal for all tobacco. Plus, one source at the Finance Ministry said it will be easier to raise tax rates when the market is still small, "Opposition to a tax hike will be stronger (once heated cigarettes become widespread). It is better to raise taxes before that happens." If heated tobacco gets priced higher than regular cigarettes, will people switch back? If the taxes rise on both products, does that strip out the windfall profits PM has seen on HEETS vs. regular cigarettes?

We have not yet seen anyone indicating that the lower nicotine levels are causing more people to stop using tobacco altogether in Japan. But, it appears that without initial stocking, falling prices and potentially higher taxes – the growth in this market could be stalling only a few quarters into the master plan of switching smokers to heated tobacco.

Raising Prices is the Rest of the Plan

As excise taxes rise, it costs PM volume – even the company admits that. What it often tries to do is piggyback off the tax increase and add a few cents per pack for itself in the form of higher prices. We're not sure that this hasn't already reached the critical stage. Here are the operating results from 2006 before heated tobacco was in full swing:

2016 y/y	FX	Price	Vol	Cost	Total
Europe	34	390	-168	164	418
EE/ME Africa	-839	584	-333	170	-409
Asia	52	335	-106	28	310
Lat Am & Can.	-282	312	-85	-92	-147
Total	-1035	1,621	-692	270	172

And here are 2017 results:

2017 y/y	FX	Price	Vol	Cost	Total
Europe	-43	156	-119	-209	-219
EE/ME Africa	81	364	-344	-201	-128
Asia	-123	559	622	101	953
Lat Am & Can.	-70	307	-152	-17	64
Total	-155	1,386	7	-326	670

In 2016, the price increases were \$1.6 billion and operating income was essentially flat with an increase of only 1.6% from 2015. In 2017, another \$1.4 billion in price hikes produced \$670 million or a 6.0% increase in operating income. We think it is clear that it came from higher volume in stocking Japan with heated tobacco and the higher prices on the IQOS devices adding to revenue. Adjusting for those items, operating income likely declined in 2017.

In the first half of 2018, the price hikes are falling in East Asia, and some stocking in Korea helped volume. Other than that only a rebound in the Euro allowed PM to post operating income growth.

6 Months 2018 Segment Operating Income Changes

6 mths 2018	FX	Price	Vol	Cost	Total
Europe	279	117	-48	-123	225
East Europe	-13	152	-88	-22	29
Mideast/Africa	-46	-51	-50	-44	-191
S&SE Asia	-31	251	-72	32	180
East Asia/Aust.	11	-21	145	-104	31
Lat Am & Can.	-37	234	-41	-64	92
Total	163	682	-154	-325	366

Conclusions:

We think the headwinds are established here in terms of higher taxes hurting demand, greater costs to FX going forward and some working capital sources of cash that are reversing. Even with price hikes to manage the decay, we do not see PM generating much if any growth from the base operations. That causes us to question future dividend growth and believe more earnings disappointments can easily happen.

The only source of upside surprises seems likely to come from rolling out heated tobacco to new markets and benefiting from higher pricing of devices and stocking the channel. Japan seems to indicate the positive gain may be short-lived. However, rolling it out to bigger markets like the EU, Russia, and perhaps getting it into the US market via Altria could give PM a series of these types of pops to earnings. That is why we are neutral for now. The analogy we are always asked is “what inning is this story in?” On the base business, we think the 8th inning. On heated tobacco, it’s probably 3rd inning. As heated tobacco matures in additional markets, the Japanese experience could make this quickly move to later innings.

Longer term, we think there may be a potential wildcard of lower nicotine in heated cigarettes leading to people reducing or quitting tobacco use altogether. We are simply focusing on the studies the FDA is using to suggest that it may cut nicotine levels in cigarettes as a way to drive more smokers to quit.

Disclosure

BTN Research is a research publication structured to provide analytical research to the financial community. Behind the Numbers, LLC is not rendering investment advice based on investment portfolios and is not registered as an investment adviser in any jurisdiction. Information included in this report is derived from many sources believed to be reliable (including SEC filings and other public records), but no representation is made that it is accurate or complete, or that errors, if discovered, will be corrected.

The authors of this report have not audited the financial statements of the companies discussed and do not represent that they are serving as independent public accountants with respect to them. They have not audited the statements and therefore do not express an opinion on them. Other CPAs, unaffiliated with Mr. Middleswart, may or may not have audited the financial statements. The authors also have not conducted a thorough "review" of the financial statements as defined by standards established by the AICPA.

This report is not intended, and shall not constitute, and nothing contained herein shall be construed as, an offer to sell or a solicitation of an offer to buy any securities referred to in this report, or a "BUY" or "SELL" recommendation. Rather, this research is intended to identify issues that investors should be aware of for them to assess their own opinion of positive or negative potential.

Behind the Numbers, LLC, its employees, its affiliated entities, and the accounts managed by them may have a position in, and from time-to-time purchase or sell any of the securities mentioned in this report. Initial positions will not be taken by any of the aforementioned parties until after the report is distributed to clients, unless otherwise disclosed. It is possible that a position could be held by Behind the Numbers, LLC, its employees, its affiliated entities, and the accounts managed by them for stocks that are mentioned in an update, or a BTN Thursday Thoughts.

