

# TOBACCO'S INVESTMENT RETURNS AND SOCIETAL COSTS

A new perspective on tobacco  
engagement and divestment

September 2017





**A NEW PERSPECTIVE  
ON TOBACCO ENGAGEMENT  
AND DIVESTMENT**

The S&P 500 Tobacco index has out-performed the S&P by more than 1,000% over the last 28 years, creating significant investment returns for investors. This creates a dilemma for investors' fiduciary duty as some investors may be concerned that smoking-caused diseases could kill as many as 1 billion people worldwide this century and that this may be undermining economic growth as many smokers die in their most economically productive years. Some investors may also have concerns about other environmental and social issues such as evidence which suggests that almost no cigarette can be guaranteed to be free from child labor, which potentially creates regulatory and other risks for investors. Using available evidence, we estimate that the industry creates at least 5 times more societal costs than benefits.

## Executive summary

This article examines the tobacco industry's investment returns, external societal costs and how investors are engaging with or divesting from the industry.

The tobacco industry has been a very profitable investment, but some investors may be concerned with how the externalized costs of tobacco use may be undermining economic growth and investors' wider portfolios, particularly in emerging markets. Due to these negative impacts, and the potential for governments to strengthen regulations in line with the World Health Organisation (WHO) Convention on Tobacco Control, some investors may decide to engage with the industry and governments, even if they also choose to divest.

Research from Oxford University (Smith School, Oct 2013) on divestment campaigns has found that 'success' requires cooperation with 'neutral' investors and policy-makers. Divestment alone is unlikely to change the tobacco industry and the prevalence of smoking. Those investors who have divested their tobacco holdings could look to governments to enact stronger anti-tobacco regulations along with other tobacco investors who may have concerns about the industry's negative externalities, but who remain invested in tobacco stocks.

Since September 1989, the S&P500 Tobacco Index rose 1,510% compared to the S&P500 which rose 509%. However, six million people die each year of smoking related illnesses. Health costs and lost productivity due to premature death and disability make smoking one of the greatest economic burdens on society, rivalling armed violence: 3.0% of global GDP or USD 2.1 tn according to McKinsey Global Institute, WHO and literature review studies.

This does not include other costs such as the economic opportunity cost of cigarettes. For instance, WHO (2004a) cites evidence from several countries where the addictive nature of tobacco causes poor people in developing countries to spend 2-10x more on cigarettes than on food or education. As well, smokers' often have lower day to day productivity; there are significant environmental and social impacts of tobacco crop production including the prevalence of child labor; cigarette-caused fire/smoke damage, injury and death, which leads to higher insurance costs. Cigarette litter also damages the environment (i.e. the chemicals and heavy metals in cigarette filters—BMJ May 2011) as well as being a costly and unsightly waste for cities to collect.

Using available evidence, we estimate that the industry creates at least 5 times more societal costs than benefits (as measured by investment returns, taxes paid, staff salaries, donations and the U.S. Food and Drug Administration's estimate of potential 'lost utility' from anti-tobacco regulations). However, this does not include the controversial 'benefit' that premature death caused by smoking reduces pension liabilities. We were unable to find any data on this 'benefit'.

While some listed tobacco companies may be trying to expand the sale of 'harm reduction' products and improving tobacco crop production practices in parts of their supply chain, only 20% of major listed companies audit their suppliers' practices and often exclude farm level assessments (MSCI 2015).

Just as investors have become more concerned with climate change risks, investors with a global and long-term investment horizon may be concerned with how the tobacco industry's cost externalisation affects economic growth and by extension, the financial performance of other assets.

There appears to be a strong parallel between the UN Paris Climate Agreement and the WHO Tobacco Convention: their ultimate goals are supported by the vast majority of countries and both call for a near complete elimination of carbon emissions and tobacco use. In both areas, the question is the rate of change and if companies and investors are adequately assessing risks. As companies and investors develop climate risk stress-testing methodologies, there may be lessons that can be learned from and by the tobacco industry and its investors and analysts. While some tobacco sell-side analysts in the past have stress-tested the impact of particular national tobacco regulations, it may be useful for equity analysts and investors to stress-test the impact of stronger regulations in line with the WHO Tobacco Convention and the 2013 world health ministers' goal to reduce tobacco use to 30% by 2025 (WHO 2013).

Improved disclosure and stress-testing may be necessary as Allianz Global Investors concluded that the market appears to be discounting the impact of new anti-smoking regulations. Tobacco companies' consensus sales growth, earnings and operating margin all show steady growth over the next several years. The industry has remained profitable in the face of declining smoking rates by increasing prices, expanding

cigarette sales in emerging markets and with industry consolidation. However, AGI concludes that despite tobacco's addictive nature (inelasticity of demand) the ability to raise prices may reach limits creating profit and growth challenges. "With young populations around the world increasingly uninterested in tobacco, this may be sooner than expected" (AGI Aug 2016).

Improved, more comparable and more widespread tobacco regulation scenario stress-testing would match the recommendations of the Financial Stability Board (FSB) Task Force on Climate-related Financial Disclosure, which is recommending companies and investors improve their carbon risk management and transparency, including with climate related stress-tests.

While global smoking prevalence fell from 23% to 21% between 2007 and 2013, according to WHO (2015) only ~10% of the world's population is covered by a tobacco tax that is judged by the WHO to be sufficiently high (more than 75% of cigarettes' retail price). The proportion of tax in cigarette prices is also much lower in emerging markets, where 80% of the world's 1.1 bn smokers live. Without stronger policies, an additional 700 million people could be smokers by 2030. This is based on WHO estimates, which assumes prevalence rates remaining relatively unchanged and current projected population growth rates.

The world's health ministers have agreed a target to reduce tobacco use 30% by 2025. From 2008-14, more than 53m people in 88 countries stopped smoking due to tobacco control regulations, including in countries with high smoking rates, indicating that regulations are expanding (Levy et al Dec 2016). Cigarette sales appear to be declining, even in China, the world's largest market (AGI Aug 2016). Reducing the rate of smoking will also help meet the UN Sustainable Development Goals.

An increasing number of investors are divesting their tobacco stocks and/or bonds, though this is still small compared to the industry's market capitalisation. Notably, CalPERS decided to expand its tobacco divestment policy to its external managers despite their financial advisors recommending tobacco re-investment.

The UK Law Commission concluded that investors may divest from companies if underlying beneficiaries share the concern and if a reasonable test of potential financial detriment is used. Trustees may also account for an industry's wider negative economic impacts (such as those described in this article) in their decision.

One French pension fund which recently announced their tobacco divestment decision stated "Progress will not be achieved by dialogue with these companies, because the whole purpose of engagement would be to demand that they should stop their activities altogether" (FRR Dec 2016).

While a similar argument is being made by some commentators regarding fossil fuel companies today, investor engagement is helping lead European oil and gas companies to increase investment in low-carbon technologies and to climate stress-test their portfolios (CDP 2016). As well, one major U.S. oil and gas company appointed a climate scientist to their board after investor pressure. In May 2017, investors voted in favor of climate risk stress-testing at two major US oil and gas companies. Divestment and engagement strategies both have complementary roles to play in helping to reduce climate risks, the negative impacts of tobacco use and other sustainability challenges.

The high negative externalities of the industry suggest that investors who are not able to or willing to currently divest, could attempt a multi-year engagement initiative, encouraging listed companies to improve performance on Environmental, Social and Governance (ESG) issues, aiming to reduce the negative impacts of tobacco use as far as possible.

Caution is however necessary given the industry's history, such as the 2006 U.S. court finding that the industry engaged in a 50-year violation of the U.S. racketeering act. WHO has also warned that the tobacco industry just uses engagement to improve their image.

Electronic cigarettes and other 'harm reducing products' could be creating a different future for the industry. One industry chief executive declared a desire to phase out conventional cigarettes. Whether this is genuine remains to be seen but investors could call for firm business timelines and targets towards such a goal. 'Harm reducing' products could be monitored and further developed to reduce remaining negative impacts, particularly concerns that they could introduce children to other tobacco products and thus to life-time addiction.

Just as investors played a key role in encouraging the finalization of the Paris Climate Agreement, investors are starting to become more active in encouraging governments to implement the WHO Convention on Tobacco Control. On "World No Tobacco Day" (31 May 2017) 53 investors with USD 3.8 trn in assets called on governments to support stronger regulation on tobacco control (PRI May 2017). This could accelerate regulations that reduce tobacco's negative impacts.

A new agenda for investors regarding tobacco could include: creating and using tobacco regulation stress-testing methodologies, stronger disclosure requirements (regarding marketing practices; 'harm-reducing' product business strategy, R&D levels and product volumes; fines, legal costs and lobbying policies/practices), expanding and improving tobacco crop production sustainability standards, supporting the use of such standards as a condition for bank loans to the sector, supporting the creation of an Economics of Tobacco report modelled on the climate change Stern Review and considering how investors could support governments in enacting new and strengthening existing tobacco laws.

## 1 | Re-debating tobacco investment

In May 2016, the Investment Committee of the California Public Employees Retirement System (CalPERS) called for analysis on potentially dropping their tobacco investment ban. Over the same period, but this time in Europe, the insurance company Axa decided to divest its EUR 184m of tobacco shares and hold its EUR 1.6 bn bonds in tobacco companies until maturity, without re-investing. Axa stated that healthcare and insurance will increasingly focus on prevention and that this is not aligned with holding tobacco stocks and bonds (Axa, May 2016).

These two distinct decisions have prompted us to examine the performance and costs of the tobacco industry, the arguments for divestment and the potential for investors to drive efforts to reduce the negative impacts of the tobacco industry as well as reducing their own risks.

The discussion at CalPERS was in part prompted by an analysis in October 2015 for their Investment Committee of the foregone returns due to various divestment decisions. The analysis (Wilshire 2015) calculated the impact of various divestment decisions including tobacco-related securities. Notably the analysis estimated that CalPERS may have foregone investment gains of USD 2-3 bn between 2001 and the end of 2014 (section 4 discusses this finding). Ultimately in December 2016, the CalPERS committee in a 9-3 vote, decided to extend their tobacco divestment policy to include external managers. This decision went against the recommendation of CalPERS expert staff and advisors.

The CalPERS April 2016 Investment Committee staff prepared meeting document begins by noting that “*Divestment as a catalyst for social change and an investment strategy has been a difficult topic of discussion in the public pension industry for decades...divestment has presented a challenging internal conflict that pits social responsibility against our fiduciary duty as outlined in the California Constitution...* CalPERS is sensitive to public policy issues. We strive to reconcile our legal and constitutional obligations with the greater good... Where we have been an effective change agent is through engagement of companies as a shareowner. We believe that engagement is the first call to action and the most constructive form of communicating concerns with companies. We have been progressive in fighting for corporate board diversity, climate risk reporting, and shareowner rights. We are guided by a clear set of well-defined corporate governance principles that set expectations for corporations and ensure that our interests are aligned with value creation” (CalPERS April 2016).

Although the CalPERS document aimed to “establish a path forward”, it is clear from the debate in California that tobacco investment and divestment is as controversial as ever. For instance, the California State Treasurer called on CalPERS to continue its divestment policy. He stated “Investing in tobacco companies is harmful to public health and to our fiscal bottom line. No public pension fund should associate

itself with an industry that is a magnet for costly litigation, reputational disdain, and government regulators around the globe” (California State Treasurer 2016).

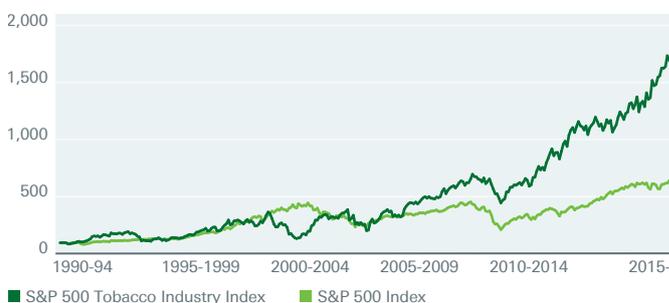
In May 2016, the CalPERS investment committee took public comments from stakeholders including the American Cancer Society (which unsurprisingly supports continuation of CalPERS tobacco divestment) and an NGO: Fossil Free California. This group was clearly concerned that changes in CalPERS tobacco investment policy could affect their fossil fuel divestment campaign. Many organizations and individuals also wrote to CalPERS, with a very strong majority supporting the continuation of the divestment policy.

We hope that this paper contributes to the discussion in the investment and tobacco control/health community.

## 2 | Tobacco stocks’ performance

Comparing tobacco investment returns with the industry’s ethical implications and negative impacts can be contentious for some investors. On the one hand, the tobacco industry’s stock performance has exhibited very strong growth. Figure 1, shows that since September 1989, the S&P500 Tobacco Index rose 1,510% compared to the S&P500 which rose 509%.

Figure 1: S&P 500 Tobacco Index vs. S&P 500

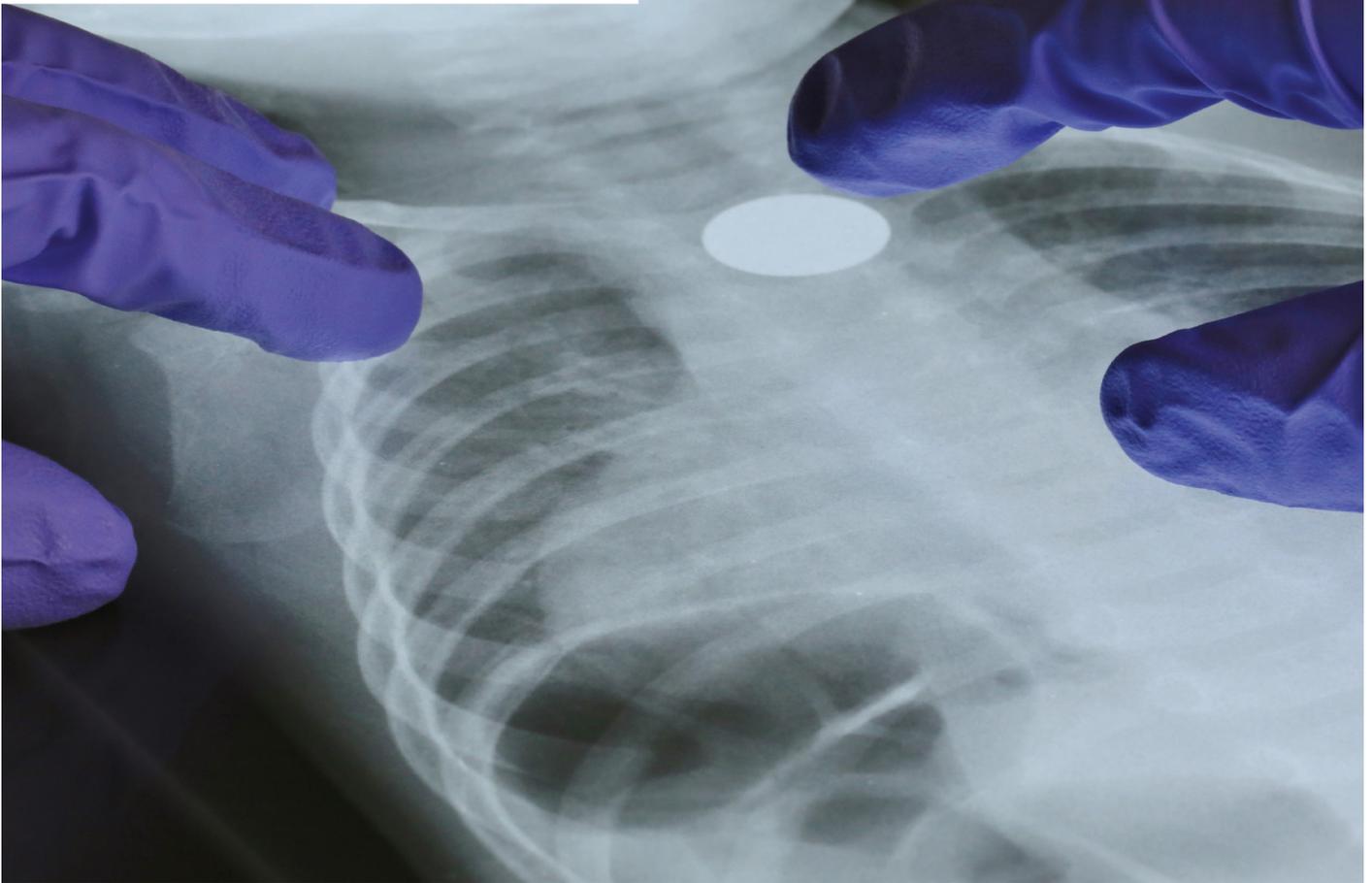


Source: Bloomberg November 2016

For some, this performance may be all that is required to close the debate on investing in the industry. However, as all investment analysts and disclaimers say: “the past may not be representative of the future”. The impact of tobacco regulation can have a negative performance impact as can be seen in the underperformance the industry experienced from 1998-2001. This coincided with the 1998 Master Settlement Agreement which required the U.S. tobacco companies to pay all U.S. states and territories billions annually for the indefinite future. The base rate of payments was USD 8.14 bn from 2008-2017 and will be USD 9 bn from 2018. However, actual payments are subject to a number of complex adjustments.

In 2015, U.S. states likely received USD 25.6 bn in revenue from the MSA settlement and tobacco taxes. Only 1.9% of these funds have been earmarked for tobacco control programs (Public Health Law Center 2015). It would therefore seem

Over six million people die with smoking related illnesses per year, the majority in their most productive years. By 2030, tobacco use is projected to kill over 8 million people per year.



appropriate for more political discussion around how the MSA settlement and tobacco taxes in U.S. could be deployed for tobacco control programs.

MSCI (2015) concluded that *“In general, companies have been successful in avoiding major fines that would threaten their cost structure”*. MSCI analysts note that there have been many instances of listed companies violating packaging and marketing regulations but this has not translated into fines, particularly in emerging markets.

Compliance and enforcement mechanisms will continue to tighten as tobacco health related costs threaten to overwhelm healthcare systems. Fines and settlements in the order of USD 100 bn+ would likely be required to significantly impact industry costs (MSCI ESG Research June 2016). Uncertainty remains as to the likelihood and timing of this happening. Investors therefore may benefit from improved transparency and disclosure. The concluding section of our paper suggests the creation of tobacco regulation stress-testing.

Philip Morris International (PMI) notes that of 422 lawsuits they have faced since 1995, twelve ruled in favour of the plaintiff. Of those twelve, nine were ultimately resolved in PMI’s favour and the other three are under appeal. No legal cases to date have finally ruled against PMI (PMI 2015). This legal success has likely kept their stock price up but the substantive legal costs of the industry is a significant business

cost. For instance, the Tobacco Control Laws project (Dec 2016) lists 1,313 litigation cases. Investors could benefit from greater transparency regarding current and potential fines as well as legal costs. Companies’ and governments’ legal costs also have an opportunity cost for society and investors. The Sustainability Accounting Standards Board (SASB, June 2015) found that only 30% of U.S. tobacco companies disclose marketing related fines.

When examining the tobacco industry, the performance of other so called ‘sin stocks’ (alcohol, tobacco and gambling) are often also referenced. One of the most famous sin stock studies is Hong and Kacperczyk (2009—hereafter HK) which found that between 1965 and 2006, U.S. publicly traded companies in these three sectors yielded a statistically significant out-performance of 26 basis points per month. They argued that this out-performance is due to investors who have excluded sin stocks. Divestment creates limited risk sharing amongst remaining investors and an expectation of higher returns.

According to Google Scholar, Hong and Cacerczyk 2009 is the most cited sin stock academic paper. However, Adamsson and Hoepner (2015, hereafter AH) find issues with HK’s research design. AH concluded that HK’s model would not be investable for large investors: HK uses an equal-weighted portfolio which over allocates capital to small companies.

Adamsson and Hoepner (2015) conclude that a value-weighted portfolio with alcohol and tobacco stocks did not show any significant outperformance.

Despite the HK sin stock paper’s shortcomings, it cannot be denied that tobacco stocks have risen significantly in value over the past 15 years. Tobacco stocks tend to have high dividends and are seen as relatively safe investments, which is attractive in a low interest rate environment. For instance, some major UK equity income funds have significant allocations to tobacco stocks (Morningstar June 2016).

Despite the strong returns from the industry, the next two sections of this article present evidence that investors may use to take a wider perspective of the negative externalities of tobacco use on society and on economic growth, as these externalities likely undermine investors’ wider portfolios.

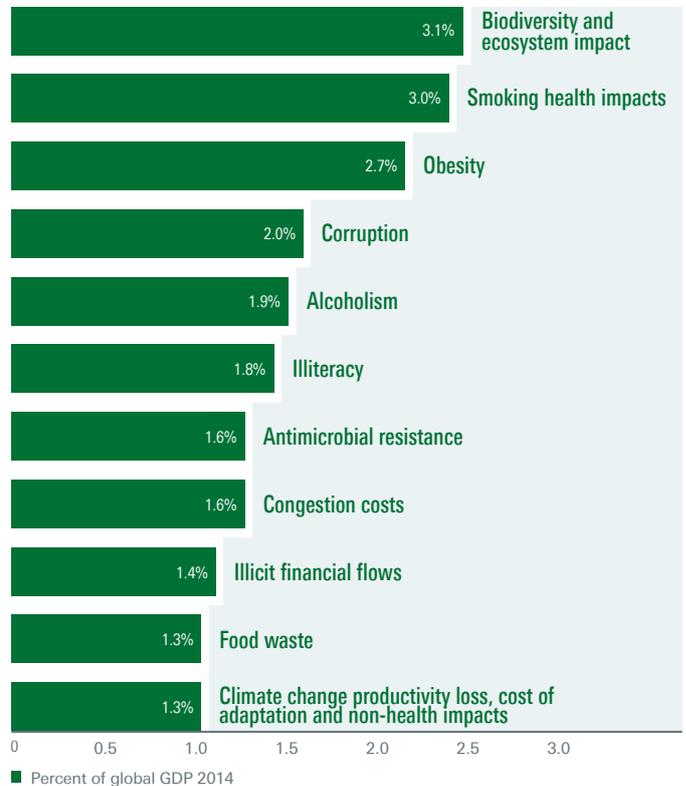
It is suggested by the PRI and others, that failing to consider long-term environmental, social and governance related investment value drivers is itself a failure of fiduciary duty. PRI (2016) concludes that the definition and interpretation of fiduciary duty should be updated. Unless and until fiduciary duty is redefined in legislation, some investors will only account for ESG issues to the extent required by asset owners’ mandate requirements and/or to the extent that an investor judges an ESG issue to be a material risk or opportunity.

### 3 | The costs of tobacco use

Between 1970 and 2000, cigarette use tripled in developing countries. More than 1 bn people smoke globally, representing more than 1 in 4 adults with 80% living in low and middle income countries. Over six million people die with smoking related illnesses per year, the majority in their most productive years. By 2030, tobacco use is projected to kill over 8 million people a year (FCTC 2015).

Figure 2 shows the Business and Sustainable Development Commission’s (2017) estimate that smoking is one of the largest societal economic burdens: USD 2.1 tn or 3% of global GDP, and this is only a partial estimate of smoking’s negative impacts.

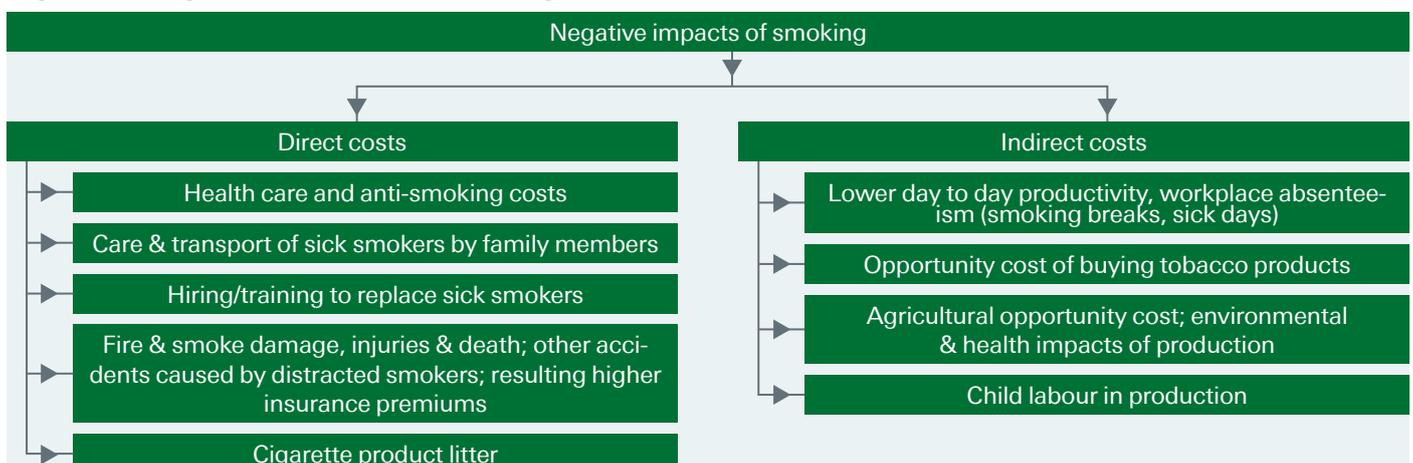
Figure 2: Current cost of major social issues



Source: Deutsche AM analysis 2016 and Business and Sustainable Development Commission 2017. Not shown is 'Violence and armed conflict', which has the largest impact at 9.1% of GDP.

This estimate includes health costs, lost productivity due to disability and premature death, the cost of anti-smoking efforts but not tobacco taxes. A wider list of smoking’s negative impacts is shown in Figure 3.

Figure 3: Negative impacts of smoking



Source: WHO 2011; Ekpu & Brown 2015, Deutsche AM analysis 2016

WHO's (2011) toolkit for assessing the economic costs of smoking found that the "cost of smoking in low and middle income countries is rarely documented" i.e.:

- China: smoking attributable healthcare cost accounted for 3.1% of national health expenditures and ~0.5% of GDP in 2000. Virtually all cigarette sales in China are from the state monopoly
- India: USD 1.7 bn health costs, cost of caregivers and value of lost work in 2004 (0.2% of GDP using World Bank's 2004 GDP estimate)
- Vietnam: healthcare costs represented 4.3% of total health expenditures and 0.22% of GDP in 2005

This scant, incomplete and not up-to-date evidence is concerning given that ~80% of smoking now occurs in emerging markets. WHO deems that limited access to and quality of medical care in some countries underestimates the true cost of smoking. For large emerging markets that are increasing their healthcare spending, tobacco use could also cause a substantially higher economic burden. By comparison in high-income countries, smoking healthcare costs account for 6-15% of health expenditure (WHO 2011).

Estimates of other costs (though hard to quantify) include productivity losses from short-term absenteeism and working at less than full efficiency. One study found smoker absenteeism cost the U.S. economy USD 218 bn (Gallup 2013).

Using primarily developed country figures, Leistikow et al (2000) estimated that 10% of global fire deaths (300,000) were caused by smoking and caused economic damage of USD 27 bn. Updated research is needed as this figure does not include evidence from emerging markets and improvements to fire resistant materials in homes.

Like other agricultural industries, the use of child labor in tobacco cultivation is a difficult issue to tackle (this issue is discussed more in Section 8). Otañez and Glantz (2011) estimate that due to the use of child labor the industry's labor costs were USD 1.2 bn lower.

The opportunity cost of tobacco products means that less money is spent elsewhere, which may slow economic growth. For instance, in Vietnam, smokers spent 3.6 times more on tobacco than on education. As tobacco use is highest amongst the poor, even a small diversion of resources can negatively impact their health (FCTC 2015). Opportunity costs may have a real economic impact as two thirds of tobacco users live in 14 emerging markets<sup>1</sup> and Deutsche Bank forecasts that these countries will contribute nearly three quarters of global GDP growth in 2017.

A U.S. insurance agency estimated that smokers in the U.S. pay USD 2,000/year more for life, health and home insurance which is in addition to an average annual cost of cigarettes of nearly USD 1,500 (Insurance Markets Agents, 2015). The Association of British Insurers estimated that life insurance

rates are twice as high for smokers compared to non-smokers. For critical illness and income protection insurance, smokers face rates that are 125-150% higher, with highest rates for smokers between 43 and 60 years of age as such people are likely long-term smokers and smoking will likely worsen existing health conditions in a multiplicative manner (ABI Aug 2016). The money spent on higher insurance costs also has a high opportunity cost. Insurance and re-insurance companies could assist in calculating the total higher premiums paid by smokers.

To assess the benefits and cost of the tobacco industry, we adapt MSCI's (August 2016) estimate of the Total Economic Value of the banking sector as a way to measure the social and political viability of the industry/companies based on real measurable economic gains for external stakeholders. We adapt MSCI's methodology as follows:

$$\text{Total Economic Value} = \text{Shareholder Value (Investment Return)} + \text{Government Value (Taxes paid)} + \text{Employee Value (Compensation paid)} + \text{Philanthropy} + \text{Spending with local companies} + \text{Customer Value} - \text{Social Costs (Fines + Litigation Costs/Reserve + Externalities)}$$

Figure 4 tabulates available evidence for benefits and costs of the industry from publicly traded companies (using data available via a Bloomberg terminal and the earlier review of the industry's negative externalities).

For shareholder value, MSCI only included banks' dividends in shareholder value as they wanted to focus solely on what a company can control, as share prices are volatile and not necessarily tied to fundamentals. MSCI will develop a methodology for share buybacks in future. For the tobacco industry shareholder value we calculate the change in total market capitalization in 2015 of the 28 constituents of the Bloomberg Index Global Tobacco Competitive Peers (BBRGLTOB). We also add dividends paid in 2015 and the value of bond interest/principal payments in 2015, but not changes in bond prices as this is strongly influenced by interest rates which are not related to economic value created by the industry. We also do not include interest paid on bank loans or short-term debt instruments.

For government value, we use disclosure of income tax expenses and excise taxes. Via Bloomberg we only found 11 companies that disclose excise tax costs totalling USD 170.8 bn. Instead we use WHO's (2015a) estimate that governments collect USD 269 bn in excise taxes. WHO notes that only USD 1 bn is spent on tobacco control with 91% spent in developed countries.

For employee value, only 17 of 28 companies have personnel expenses disclosed via a Bloomberg terminal. Only four companies disclose philanthropic payments and only ten companies disclose their spending with local companies. Companies do not appear to disclose payments to tobacco farmers and other suppliers.

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<sup>1</sup> Bangladesh, Brazil, China, Egypt, India, Indonesia, Mexico, Pakistan, Philippines, Russia, Thailand, Turkey, Ukraine, Vietnam (Bloomberg Philanthropies 2015). DB's forecast does not include Pakistan or Bangladesh.

For customer value, MSCI’s bank analysis used net profit, which they admit is an imperfect indicator. For the tobacco industry we considered using sales, as customers are ‘willing’ to pay for tobacco products. While many smokers may describe smoking as pleasurable, given the addictive nature of tobacco we decided this was not the right approach.

The U.S. Food and Drug Administration (FDA May 2016) developed a methodology for estimating smokers’ potential ‘lost utility’ due to anti-smoking regulations. The creation of the methodology was contentious as almost all people start smoking when they are teens/young adults and their ability to rationally balance benefits/costs/risk is only emerging. Information on health risks may not be available when deciding to start smoking, be hard to interpret or intentionally be distorted by tobacco companies. Many smokers say they wish they had never started. There are both negative (withdrawal symptoms, loss of pleasure/image) and positive effects from stopping

smoking (freed up money, reduced social stigma, reduced self-loathing for not being able to quit, health benefits).

Through extensive debate and consultation, the FDA concluded that the short-term loss of smokers quitting is 5-10% of the value of the health benefits of quitting. There is limited research on the extent to which a few smokers who quit may ‘miss’ smoking but this ‘loss’ will reduce over time. FDA concludes that this loss would not exceed 20% of health and monetary gains in the small chance that all smokers might miss their habit. As regulations will likely induce smokers quitting who will not miss their habit, FDA expects the utility loss from new regulations to be 5% of health and monetary gains. We apply this figure to the McKinsey’s (Nov 2014) USD 2.1 tn estimate of the global health impact of smoking to reach a ‘customer value’ of smoking of USD 105 bn. This may represent the value of avoided withdrawal symptoms by continuing tobacco use.

Figure 4: A partial analysis of the tobacco industry’s annual Total Economic Value in 2015

	Benefit or (cost)
Tobacco excise taxes paid	USD 269 bn
Customer value (avoided withdrawal symptoms by continuing tobacco use)	USD 105 bn
Total investment return (increase in market capitalisation, dividends, bond interest and principal payments)	USD 73.6 bn
Other corporate taxes paid	USD 13.9 bn
Employee compensation paid	USD 13.8 bn
Philanthropy and spending in local communities	USD 0.3 bn
Reduced pension liabilities	No estimate found
Health costs, lost productivity due to disability and pre-mature death, the cost of anti-smoking efforts	(USD 2,100 bn)
Fines and litigation costs/reserves*	(USD 10.6 bn)
Smoker absenteeism / lower productivity—U.S. only	(USD 218 bn)
Smoking caused fire damage and death—developed countries only	(USD 27 bn)
Labor costs lower due to child labor	(USD 1.2 bn)
Economic opportunity costs of tobacco consumption, higher insurance costs, environmental/social impacts of tobacco crop production, cigarette litter, care of sick smokers, hiring/training to replace sick smokers	No estimates found
<b>Total Benefit</b>	<b>USD 475.6 bn</b>
<b>Total Costs</b>	<b>(USD 2,356.8 bn)</b>

**Costs are approximately 5 times larger than benefits. Economic costs of tobacco are 3.2% of global GDP in 2015.**

Source: Deutsche AM analysis, Bloomberg December 2016, FDA May 2016, Gallup 2013, Leistikow et al 2000, McKinsey Global Institute Nov 2014, Otañez and Glantz 2011, WHO 2015a

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\*As tobacco fines are a transfer from companies to governments, we assume they have a neutral effect on society as a fine means lower wages/profits or higher prices (all else being equal). Excluding fines from this calculation does not have a material impact on the overall cost-benefit ratio.

Only four companies disclosed fines/legal settlements in 2015 and this does not include payments under the U.S. Master Settlement Agreement (even though there is a Bloomberg terminal field dedicated to this). We add the MSA base rate for 2015 of USD 8.14 bn, although actual payments may differ due to various adjustments allowed under the MSA (Public Health Law Center 2015).

We freely admit that this analysis is incomplete and subject to a number of limitations including incomplete company disclosure and lack of uniform/complete/updated cost or externality estimates (as discussed earlier in this section). One controversial 'benefit' that we have left out of Figure 4 (as we have not seen any estimate) is that premature death caused by smoking reduces pension liabilities (WHO 2011). The inclusion of potentially reduced pension liabilities would naturally lower the net costs of smoking. In case our analysis is not complete enough for some readers, one of our concluding recommendations is that governments and others jointly undertake a comprehensive Economics of Tobacco report.

However, even with improved disclosure and analysis of the industry's benefits, a fuller accounting of societal costs is likely to still be larger. We conclude that the tobacco industry creates at least 5 times more societal costs than benefits.

Our analysis does not include state-owned companies. We have also not carried out any analysis of disclosures from the China National Tobacco Corporation (CNTC) which sells ~44% of cigarettes globally (Bloomberg Dec 2016).

CNTC doubtless employs many people, pays government taxes, and undertakes various philanthropic projects. However, cigarettes in China are generally of low quality which likely exacerbates negative health impacts, taxes are lower than in nearby countries and awareness of the health implications of smoking is very low in China (Tobacco Free Kids 2013, Zhi et al 2013). As well, Bloomberg Business Week (Dec 2014) quoted a former deputy director of the China Center for Disease Control and Prevention as saying that China's tobacco regulator "works very hard towards the opposite [of tobacco control]". While it appears that smoking rates are declining in China (though at a slower rate than other countries—AGI Aug 2016), we feel confident in concluding that the societal costs of the tobacco industry in China are also higher than the benefits.

Beyond an economic rationale, reducing smoking prevalence would also assist in meeting the UN Sustainable Development Goal (SDGs). The health SDG #3a is to: "Strengthen implementation of the WHO Framework Convention on Tobacco Control in all countries as appropriate". The WHO Tobacco Convention, which has been ratified by 180 countries, was one of the fastest treaties to become international law (the Paris Climate Agreement was the fastest). Among its provisions are minimum rules for the production, sale, distribution, advertisement and taxation of tobacco (WHO 2016).

A group of NGOs produced a factsheet setting out evidence of how tobacco use undermines progress towards other SDGs (FCTC 2015). This is an additional factor in favour of a broad investor agenda on tobacco.

One potential criticism of anti-smoking regulations is the impact on industry employment. The ILO (2003) found that "no correlation has been established between the decline in (tobacco) consumption and the decreasing rates of (tobacco) employment". Industry employment has fallen in developed countries due to improved manufacturing, farming techniques and industry consolidation. In 2003 it was estimated that ~100m people work in the industry, 40m in growing/leaf processing, 1.2m in manufacturing, 20m in hand-rolling cigarettes in India and Indonesia and the rest in distribution, sales and promotion. ILO (2014) attempted to update its employment figures but a complete analysis was not possible.

A World Bank report (2002) reviewed industry, academic and government tobacco employment reports. "A reduction in tobacco use has no, or possibly even a small positive, effect on the total output and employment of the national economy, except in a very few countries that are heavily dependent on tobacco production... But these losses are generally out-weighed by increases in employment in all other industries or in non-tobacco dependent regions. It is important to identify those who are going to be negatively affected by a smaller tobacco economy in order to implement an effective tobacco control policy".

Despite the lack of specific evidence of the economic impact of tobacco in emerging markets, the evidence underpinning Figure 4 shows that tobacco use and tobacco externalities can undermine economic growth. With strong concerns about 'lower for longer' growth in OECD countries, it may be economically rational for investors to support stronger tobacco regulations and improved company practices. However, current fiduciary duty definitions and interpretations create a dilemma for investors to take this evidence into account.

## 4 | Tobacco divestment history and recent developments

The first wave of tobacco divestment started in the 1980s with public health organizations divesting due to their conclusion that tobacco was contrary to their missions. The second wave started in 1990 when Harvard University's then-president also announced a tobacco divestment policy. Several other universities, cities and other public institutions also divested around this time (Wander and Malone 2004). The divestment decisions of prominent U.S. universities was seen as a tipping point that paved the way for other public institutions internationally to also divest (Teoh, Welch and Wazzan 1999).

The third wave came during the mid-1990s as some public pension funds became concerned about the potential implications of increased regulation and lawsuits. For instance in 1994, the U.S. Food and Drug Administration increased regulations and the State of Mississippi and other jurisdictions began court cases against the industry, which ultimately led to the Master Settlement Agreement. A 2004 report estimated that USD 5 bn of capital had been withdrawn from tobacco stocks (Wander & Malone 2004).

Today, a fourth divestment wave is underway. For example, over the last three years, a group of Australian asset owners have decided to drop their tobacco allocation. So far, 40% (35) of Australian pension funds have divested AUD USD 2 bn or EUR 1.2 bn (NCD Alliance 2016). In comparison the market capitalisation of the MSCI World Tobacco Index is USD 562.2 bn (MSCI June 2016).

Alignment with their beneficiaries' beliefs and jobs were clear priorities for many of these institutions as their members include health care and community workers (Sydney Morning Herald Jan 2013, ABC 2013, Epworth 2014). Some UK and other public pension funds are also excluding tobacco, though two UK county councils have decided not to divest (IPE July 2014). Sweden's AP4 implemented a tobacco free policy in Nov 2016 and the French pension fund FRR did so in Dec 2016.

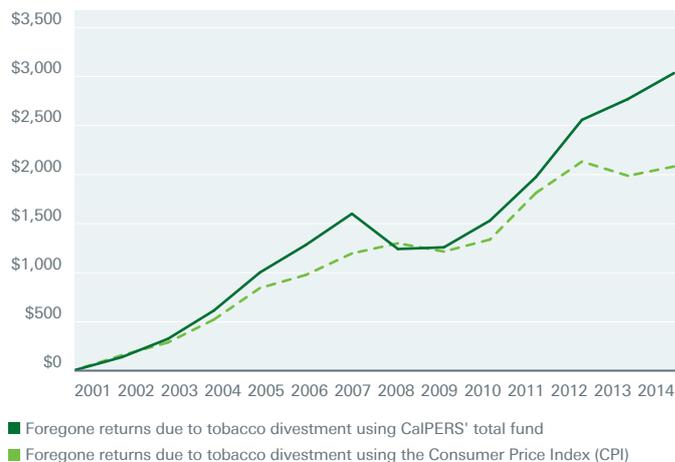
Part of one of the guidelines for implementing the Framework Convention on Tobacco Control, (a UN treaty signed by 180 countries) states that "Government institutions and their bodies should not have any financial interest in the tobacco industry". This guideline was approved by governments who are signatories to the Convention (FCTC 2008). However, only Australia, New Zealand and Norway have met this requirement.

In March 2015, the Union for International Cancer Control announced a Global Taskforce for Tobacco Free Portfolios, headed by Dr. Bronwyn King, a cancer doctor who has played a leading role in Australia's superfund divestment efforts (Guardian August 2016).

In Europe in 2015, EUR 10 tn in funds had some sort of ESG exclusion applied, a growth of 48% from two years previously. Tobacco is the second largest category of exclusions although Eurosif (Nov 2016) does not estimate the potential value of excluded tobacco stocks.

CalPERS' consultants (Wilshire Sept 2015) calculated the cost of tobacco divestment with two methods, concluding that their tobacco exclusion policy led to USD 2-3 bn of forgone investment gains from 2001-14 (see Figure 5). The estimate was calculated by comparing the performance difference between CalPERS' tobacco free benchmarks with a tobacco-inclusive standard benchmark.

Figure 5: Present value of CalPERS' tobacco divestment (USD millions)



Source: Wilshire Sept 2015

Tobacco stocks only represent a minority of CalPERS' total holdings. Wilshire (2015) estimates that 22 prohibited tobacco related companies would have comprised USD 1 bn or 0.66% of CalPERS' USD 157 bn global equity portfolio.

The foregone tobacco return compares with CalPERS' year-end 2014 total assets of USD 301 bn. If tobacco had been included, CalPERS' assets may have been ~1% higher.

Wilshire's finding and CalPERS potential reinvestment has been reported on by media around the world. It has also set off a significant debate in California and within CalPERS' beneficiaries, staff and investment committee.

Norges Bank Investment Management (NBIM) undertook similar analysis after the Ministry of Finance (January 2016) and its Ethics Council decided to divest. In March 2016, NBIM, the world's largest sovereign wealth fund, reported that the decision reduced its overall returns by 0.68% or USD 1.94 bn (NBIM March 2016, p.21). This compares with NBIM's total assets of USD 831 bn as of 1Q 2016.

However, an empirical time series analysis of NBIM and the Swedish AP pension funds exclusion decisions found that exclusion does not harm funds' performance (Hoepner and Schopohl 2016).

Investors who are considering divesting could use the Norges, CalPERS, and Hoepner and Schopohl's methodologies for measuring the potential impact of exclusion decisions.

For investors who may still be concerned that it is a 'steep price' to divest, the following two sections discuss fiduciary duty and divestment as well as the Universal Ownership concept, which provides a wider perspective for assessing the benefits, costs and risks of tobacco industry investment.

## 5 | Fiduciary duty

For some investors there may be uncertainty regarding the legal extent to which they can and should make a tobacco divestment decision. To address fiduciary duty uncertainties the UK's Law Commission was asked to review the concept's definition and application (the Law Commission is an independent body set up by the UK Parliament to review and recommend reforms). The Commission's final report also discussed the question of tobacco divestment.

The Law Commission (June 2014, p.112-117) concluded that "Trustees may take account of any factor which is financially material to the performance of an investment, including environmental, social and governance factors."

The Law Commission also examined when trustees may account for "non-financial" factors such as improving beneficiaries' quality of life or showing disapproval of certain industries. "Non-financial factors may only be taken into account if two tests are met:

- Trustees should have good reason to think that scheme members would share the concern
- The decision should not involve a risk of significant financial detriment to the fund

The Law Commission concluded that "*it may be legally permissible for trustees to divest because of concerns that it is wrong to be associated with a product which causes harm. However, trustees would need to show that they had gone through a careful process to apply the two tests we set out.*"

The Law Commission did not specify how to carry out these tests but regarding the first test, it noted that a poll of members may not be necessary in all situations. Letters from members in support with no disagreements could also be used. If a poll is conducted, a majority of members' views would be sufficient. When a minority of members strongly disagree then the courts could "expect trustees to focus on financial factors rather than becoming embroiled in disagreements between the members".

On the second test, the Commission argued that measuring financial detriment should not be carried out in a narrow way. "*It is up to the trustees to decide whether a decision made on non-financial grounds risks causing significant financial detriment. The decision must be assessed at the time it is made, not in hindsight, and the courts will allow the trustees discretion in the way that they assess financial detriment*" (June 2012, p.121-122). The Law Commission also assessed the concept of Universal Ownership and this is described in the following section.

It is notable that the Principles for Responsible Investment (PRI) has launched a three year project to encourage regulators in major countries to clarify the scope of fiduciary duty and ESG (PRI February 2016). Investors would likely benefit from confirming the Law Commission's findings in national legislative frameworks.

## 6 | Universal Ownership as a tobacco divestment justification

In 2011, the concept of "Universal Owners" was developed by Roger Urwin, Global Head of Investment Content at Willis Towers Watson. He stated that: "*Universal owners are asset owners who recognize that through their portfolios they own a slice of the whole economy and the market. They adapt their actions to enhance the return prospects of their portfolios, and hence the prospects for the whole economy and the market as well...*"

*Universal owners will support the goals of sustainable growth and well-functioning financial markets. A universal owner will also view these goals holistically and seek ways to reduce the company level externalities that produce economy-wide efficiency losses" (Urwin 2011).*

The investor strategist Keith Ambachtsheer contends that it is the job of pension funds to 'turn savings into wealth' – not just to focus on short-term returns (van Dam June 2016). This is very similar to the Universal Owner concept.

Following Urwin's paper, UNEP FI (2011) estimated that human activity caused USD 6.6 tn of environmental damage, equal to 11% of global GDP in 2011. Evidence such as this has accelerated asset owners taking a more holistic view of environmental risks and opportunities— particularly climate change in the lead-up to the Paris Climate Summit in December 2015.

Analysis of excessive short-termism in the economy is also relevant for Universal Owners. Experts at Mercer analysed short-termism in the investment chain. Addressing issues such as excessive fees and misaligned incentive structures could enable asset owners to act more like real owners. Mercer estimates that this could increase global equity returns of 0.5-0.75% per annum which could increase pension savings by as much as 25% over a 20 year accumulation period (Ambachtsheer, Fuller and Hindocha 2013). While the Mercer paper did not examine negative externalities, the problem of misaligned incentives could be seen as including negative sustainability risks and impacts.

The WHO Tobacco Control Convention has been ratified by 180 countries and was one of the fastest treaties to become international law (the Paris Climate Agreement was the fastest).

# Seventh session of the Conference of the Parties to the WHO Framework Convention on Tobacco Control

November 7-12, 2016



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The UK Law Commission also examined how the Universal Owner concept could match with fiduciary duty. *"In some circumstances, damage to the wider economy might be considered a financial factor, as it will impact on the scheme's portfolio as a whole... For a [divestment] decision to be justified on financial grounds, the anticipated benefits to the portfolio should outweigh the likely costs to the portfolio...the financial benefit must not be 'too remote and insubstantial' and must accrue to the fund itself, not to the social good in a more general way"* (2014, p.116-117).

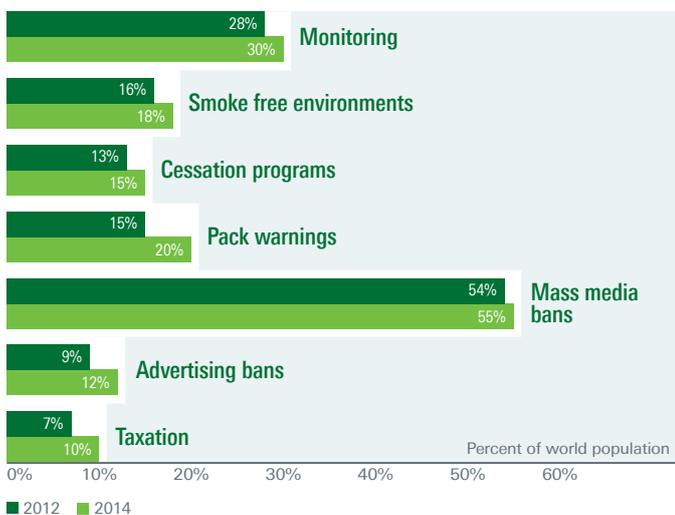
Investors considering divestment could consider the evidence in Section 3 of our report on the economic costs of the industry. As the UK Law Commission accepted that the Universal Ownership concept could be used to justify a divestment decision, a methodology may need to be developed to assist investors applying the Universal Ownership concept in this way. For instance, as much of the industry's negative impacts occur in emerging markets, an investor should logically have some emerging market exposure if the economy-wide impacts of the industry are being used to justify a divestment decision.

## 7 | Tobacco regulation has expanded, but remains low in emerging markets

The World Health Organisation’s (WHO) calls tobacco use an ‘epidemic’. WHO’s (2015a) report celebrated that countries with 40% of the world’s population have implemented at least one recommended tobacco control policy. This represents 2.8 bn people, tripling coverage from 2007. Policies are having an impact as smoking prevalence fell from 23% to 21% between 2007 and 2013.

Despite the evidence about smoking’s negative impacts and the track record of effective policies, the coverage of tobacco policies is surprisingly low, particularly for taxes. **Figure 6** shows the proportion of the world population covered by the WHO’s recommended tobacco policies. The 10% figure for tax policy coverage, refers to the WHO’s objective that taxes should be 75% of the retail price of cigarettes in order to induce current users to quit and to deter the youth from starting smoking.

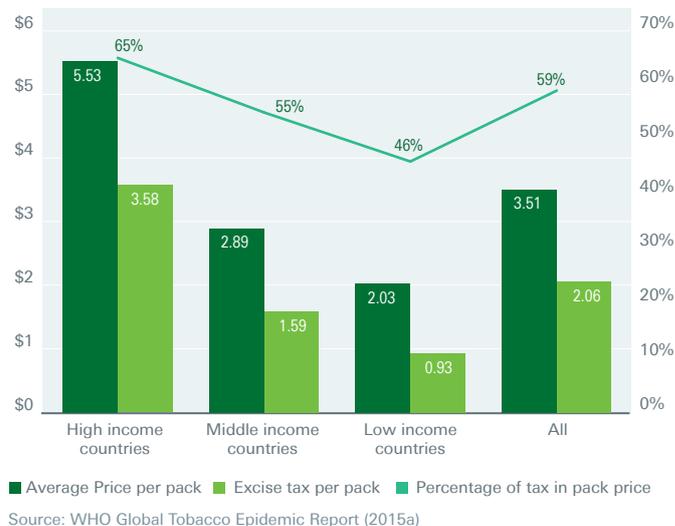
Figure 6: A low proportion of the world’s population is covered by the most effective tobacco control policies



Source: WHO Report on Global Tobacco Epidemic (2015a)

A recent WHO report (2015b) opens with a simple but powerful statement: *“Raising tobacco taxes is the most effective way to reduce tobacco use. The tobacco industry will do whatever it can to keep taxes low.”* This may help explain why tobacco taxes are less common and lower in poorer countries, as shown in **Figure 7**.

Figure 7: The proportion of tax in cigarette prices is lower in poorer countries



In high income countries taxes are slightly lower than WHO’s (2015a) recommendation that taxes should be 70%+ of pack price. A 10% price increase would likely cut demand by ~4% in high-income countries, by ~2-8% in low/middle income countries (IARC 2011) and reduce the number of smokers by 42m (38m in low/middle income countries). Tax increases explain nearly half of the 46% reduction in smoking between 1989 and 2010 (WHO 2014).

A WHO expert (Perucic 2012) points out that barriers to increasing tobacco regulation in emerging markets include:

- weak tax administration to audit and collect revenues
- weak smuggling control
- technically weak officials with limited market knowledge of pros/cons of different tax systems
- frequent turnover in government staff
- conflicts of interest within government
- strong tobacco industry pressure (often industry is the best source of information for the ministry of finance)
- Local tobacco tax evidence is weak to non-existent (allowing industry to argue against new policies)

There is also an asymmetry in where money is spent to reduce smoking. Governments spend ~USD 1 bn/year, but 91% of this is spent in high income countries (WHO 2015a).

To help address these challenges, the Bill & Melinda Gates Foundation, Bloomberg Philanthropies, the WHO and the World Bank have established a global effort to build national capacity for, and support priority middle- and low-income

countries in the design, implementation and monitoring of tobacco tax reform (WHO 2015b) The Gates Foundation (2016) has committed USD 225m and Bloomberg (2016) has committed more than USD 600m since 2007.

These initiatives are having an impact as they have supported many of the new policies tracked in Figure 6. One example is the Gates Foundation’s CEO (May 2016) describing their support for the Philippines government increasing tobacco taxes in 2013 by up to 820 percent, reducing smoking, and saving people money. The tax created USD 980m in government revenue which was used to double their health budget and extend fully subsidized health insurance to 43m poor Filipinos.

These outcomes are surely positive for economic growth. The Brookings Institute (Feb 2001) notes that the multiplier effects of an economic stimulus for the poor are higher than for the rich. Thus, reducing smoking rates could allow people to spend money elsewhere, creating an economic stimulus. World Bank (Aug 2016) experts use such ideas to argue that tobacco taxes should be part of government growth stimulus and budget policies. As well, Bill Gates has advised G20 countries that “tobacco taxes are especially attractive” (Gates Foundation 2011). An assessment may be needed of the degree to which higher tobacco taxes and revenue use for health and other programs, create an economic stimulus. This could be part of an aim of a new Economics of Tobacco report.

The Gates and Bloomberg foundations established a USD4m fund in 2015 to help developing countries facing legal challenges from tobacco firms regarding tobacco regulations. For instance, Uruguay had a long-running and expensive legal dispute with Philip Morris International (which was ultimately won) regarding the use of graphic health warnings on packaging (Bloomberg Philanthropies March 2015). More recently, the Guardian newspaper published a series of articles regarding how multinational tobacco firms are using “intimidating tactics” to stop or dilute tobacco regulations in Africa (Guardian July 2017).

Investors have established expectations for corporate lobbying on climate policies, including that companies report on their lobbying activities (PRI April 2017). Investors could establish expectations for how companies discuss tobacco policies with governments that respect commercial and trade law and countries’ efforts to regulate to reduce tobacco’s negative impacts, without using “intimidating” tactics. This seems to particularly needed given the asymmetry in resources and expertise between tobacco companies and emerging market governments.

## 8 | Evaluating and disclosing industry practices

In February 2015, the comedian John Oliver focused an episode of his U.S. television show “Last Week Tonight” on the tobacco industry. The twenty minute episode discussed declining U.S. smoking trends, the industry’s growth and profitability driven by its emerging markets expansion and highlighted issues such as cigarette marketing outside of schools, a young boy who had become addicted to tobacco and industry lobbying/lawsuits against regulations.

Oliver’s assessment clearly tapped into public concerns as millions of people have watched the episode and it received widespread media coverage. However, industry criticism is not limited to a purely populist assessment. This section explores concerns with tobacco cultivation practices, marketing practices, ‘harm reduction’ products such as electronic cigarettes and voluntary disclosure standards.

ESG data firms quantify tobacco company level ESG risks including supply chain labor standards, safety and phase-out of chemicals in tobacco products, water and biodiversity management and the existence of marketing policies with compliance control procedures. Figure 8 shows the distribution of ESG scores for ten of the largest tobacco companies using Deutsche AM’s proprietary ESG rating methodology. Deutsche AM’s ESG scores are a consensus calculation of ratings from Sustainalytics, MSCI and oekom (see our Sustainable Finance Report #1 for more details on our ESG ratings and ESG Engine software).

Figure 8: Tobacco industry ESG score distribution based on Deutsche AM's proprietary ESG rating methodology



While some may question how a tobacco company can receive a B score, the ratings in part depend on how a company compares to the consumer industry. For instance, from 2014 to 2015, MSCI upgraded the ESG ratings for six of the thirteen tobacco companies with one rating downgrade. MSCI concluded that specific companies had improved management of water risks by setting water use targets and were improving agricultural supply chain management with audits to address child labor concerns. In the above graphic one B rated company has comprehensive water management and nature conservation programs but has poor performance in managing chemical additives plus has some supply chain and responsible marketing issues.

### Disclosure standards

The Sustainability Accounting Standards Board (SASB 2015) developed provisional disclosure standards for the most financially material ESG issues across 79 industries through a broad consultation with companies, investors and public interest groups. While voluntary, SASB standards could become requirements by financial regulators and by the growing number of investors and stock exchanges encouraging and requiring ESG disclosure. Figure 9 shows the provisional disclosure recommendations for the tobacco industry.

Figure 9: SASB provisional tobacco disclosure recommendations

Public health	Revenue from smokeless tobacco products, non-tobacco nicotine delivery products, other tobacco harm reduction products
	Description of process to assess risks and opportunities associated with tobacco harm-reduction products
Marketing practices	Amount of legal and regulatory fines, settlements and enforcement actions associated with marketing, labelling and advertising
	Description of alignment of tobacco advertising, promotion and sponsorships activities with WHO Convention on Tobacco Control (Article 13)
	Description of alignment of tobacco labelling and packaging practices with WHO Convention on Tobacco Control (Article 11)

Source: SASB (June 2015)

SASB (June 2015) found that only 35% of U.S. listed tobacco companies made SEC filings that included the above quantitative metrics on public health issues and less than 30% for the quantity of marketing related fines.

While the process to develop SASB standards was broad, the tobacco metric development did not have very high participation. Only one company, four market participants and two public interest groups provided input. SASB aimed to have at least 12 responses from each of the three survey respondent categories (SASB June 2015). SASB’s provisional standards will be consulted on and finalized by the end of Q3-2017. Wider participation could help improve ESG disclosure in all industries. In the following sections, we provide observations on industry practices and how the SASB disclosure recommendations could be improved.

### Tobacco ‘harm reduction’ products

A review of the health evidence of electronic or e-cigarettes by Public Health England (PHE August 2015) found that e-cigarettes are 95% less harmful to your health and can help smokers to quit when part of a smoking cessation service. E-cigarettes may therefore be contributing to the long-term decline in cigarette smoking.

However, the U.S. Surgeon General (2016) warned that electronic cigarettes use by high school students grew 900% from 2011-2015, that even with lower nicotine levels in electronic cigarettes young people can be harmed and become addicted to tobacco and other addictive substances. The effects of e-cigarette liquid constituents are uncertain, even though the level of toxicity is lower than conventional cigarettes. E-cigarettes could also habituate or re-normalise tobacco use by young people. One tobacco policy researcher observed that e-cigarettes need to compete with normal cigarettes. Companies want to market and grow both markets which would have no health benefit. Health experts and advocates disagree about the role of e-cigarettes (FT April 2014).

Harm-reducing products like e-cigarettes could create a new future for the industry but the harm must be reduced as far as possible—particularly regarding children and young adults.

The need to improve disclosure of non-tobacco product volume, research and development, capital expenditure plans and risk assessment is seen in one company’s launch of a “new less harmful” cigarette and a statement from the CEO that they would like to “phase-out” conventional cigarettes (PMI Nov 2016). Whether this leads to significant changes in the industry remains to be seen, but an investor engagement initiative could clearly hold this company to their word and call for changes to their marketing practices. Greater disclosure would also reveal companies who are proactively working to reduce the harm caused by their products.



Almost no cigarette can be guaranteed to be free from child labor. Only 20% of listed companies have programs to audit suppliers' code of conduct compliance and this is limited to direct suppliers, excluding farm level assessments.

### Tobacco marketing

MSCI has some very critical conclusions on the industry's marketing practices. MSCI's tobacco industry report (December 2015) found that *"most companies (65%) have marketing policies that address marketing of tobacco products and specifically prohibit marketing to youth, yet surprisingly, only 50% of companies state that they have audit mechanisms to help ensure compliance with marketing codes and to identify potential breaches"*.

MSCI go on to state that *"third party evidence suggests that companies in this industry generally do not appear to uphold their marketing policies particularly in developing market countries where oversight of marketing approaches and where regulatory enforcement mechanisms are typically less robust compared to developed economies."*

*Violations include insufficient age verification procedures during promotional events and non-adherence regarding the size and position of health warnings on promotional items... Nearly 60% of companies face controversies related to their marketing practices, or are facing consumer and government lawsuits seeking compensation for health problems and healthcare costs."*

### Legal costs and lobbying

The provisional SASB metrics do not address the potential impact of new regulations or of health related lawsuits. Many court cases are related to health claims and therefore seem logical to require standardised disclosure. As well as

disclosing fines paid, companies could disclose forward looking balance sheet provisions that are made for potential legal costs. This is standard practice in the financial sector. Company internal legal costs are also very substantial. While companies are likely to be opposed, investors could consider whether they would like companies to disclose their internal legal defence costs.

Fidelity (2016) concludes that legal risks outside of the U.S. are not being priced in by the market. For instance, in June 2015 the Canadian government sued three companies for CDN15.6 bn. The case will be in appeals courts for at least 2-3 years. Canadian provinces are also seeking multi-billion health care cost recovery. Successful litigation in Canada could lead to other countries attempting similar lawsuits.

Over 60 investors with USD 4 tn of assets signed a statement calling for corporate climate policy related lobbying to be aligned with the goal of an orderly low-carbon transition. Companies are asked to disclose policy positions and lobbying activities. Investors have also supported AGM resolutions in this area (PRI Oct 2016). Logically, these investors should also be supportive of greater disclosure of the tobacco industry's lobbying policies and practices.

### Tobacco cultivation production practices

MSCI (2015) notes that as in other agricultural industries, poor labor practices are endemic in companies' supply chains in developing and developed countries. For instance, tobacco leaf farmers need to use large amounts of fertilizer, pesticides,

and herbicides as tobacco leaves are often disease-prone. This exposes workers (who are often children) to harmful chemicals. Globally, ILO (2010) estimates that 60% of 215m child workers are in agriculture.

A recent Human Rights Watch (HRW) report documented the prevalence of child labor in the tobacco industry in Indonesia and the harm children are exposed to: nicotine exposure, toxic chemicals, sharp tools, lifting heavy loads and working in extreme heat. While Indonesia does allow some child labor, HRW suggest that these dangers should mean that child labor should be banned (HRW May 2016). HRW (May 2014) also found child labor in the U.S. tobacco farming industry.

While children as young as 12 can legally work in agriculture in the U.S. outside of school time, the children interviewed for HRW's report often complained of becoming sick due to exposure to nicotine from the plants and from pesticides. Some U.S. child tobacco and broader farm workers also suffered serious injuries and even death.

Handling wet tobacco leaves can lead to a type of nicotine poisoning called green tobacco sickness (GTS). According to the U.S. Center for Disease Control (CDC 1993), GTS creates very significant health and productivity costs. CDC's recommended protection methods are likely difficult to implement, let alone enforce (i.e. avoiding wet working conditions, protective clothing may be too hot to use, hard to change out of wet clothes in the middle of a field). Further research could aim to quantify the costs of GTS on health care systems, lost wages and labor productivity.

Many of the major tobacco companies' websites describe their efforts to improve tobacco production methods including addressing GTS and it is likely that some progress is being made. However, MSCI (2015) found that only 20% of listed companies have programs to audit suppliers' code of conduct compliance. Audits are restricted to direct suppliers, excluding farm level audits where poor labor practices are common. Only one company has started monitoring standards at farm level.

Regulations are increasingly focusing on companies' efforts to ensure their supply chains are free of forced labor, child labor and human trafficking. Regulations include the UK Modern Slavery Act, California Transparency in Supply Chains Act and new SEC requirements. For instance, the UK requires companies to publish an annual statement of the steps taken to ensure that their supply chain is free from slavery and human trafficking.

Schroders concluded that food product and tobacco companies are the most vulnerable to reputational brand impact as their raw materials come from countries with high modern slavery risk (Schroders Aug 2016). These regulations could also indirectly assist economic development if child labor is replaced with adult workers who are paid fair wages

and avoid health and safety issues. Otañez and Glantz (2011) estimate that the tobacco industry's labor costs were USD 1.2 bn lower due to the use of child labor.

### Tobacco and deforestation

Tobacco production may contribute to deforestation by land clearing to obtain firewood for curing tobacco (other fuels are also used in some countries), fertilizer and chemical runoff, soil deterioration and water stress (Lecours et al 2011). Deforestation may contribute an average of nearly 5% of global deforestation (Geist 1999). These estimates would benefit from updated research. Tobacco ranks among the ten crops with the highest requirements for fertilizers (FAO 2006).

No companies have programs to reclaim habitat/disturbed land while 46% are working to reduce some environmental impacts. A subsidiary of one company is producing certified organic tobacco while two companies are undertaking community and biodiversity impact assessments. Tobacco's water requirements are on par with sugarcane and bananas and thus tobacco is likely to be a crop that is highly impacted by low water availability. Around 55% of companies have water reduction targets, but most do not include farm level targets (MSCI 2015).

While tobacco production does provide farmers with important income, IDRC's (2014) extensive case study analysis shows that farmers can have high dependency and low negotiating power with companies, high debt levels and low net income. IDRC suggests some farmers could be better off with other crop combinations, but may be tied to tobacco companies with debts and obligations.

Investors with a global and long-term perspective (Universal Owners) are likely to be concerned about this evidence as the industry's externalisation of poor labor and production practices may contribute to holding back development and economic growth in emerging markets.

As part of the SASB process, there was a proposal for Environmental and Social impacts of supply chains metrics:

- Percentage of tobacco sourced from growers audited to U.S. Tobacco Good Agricultural Practices (GAP) program guidelines or an equivalent code of conduct
- Suppliers' social and environmental responsibility audit compliance: (1) priority non-conformance rate and associated corrective action rate and (2) other non-conformance rate and associated corrective action rate (SASB January 2015)

This proposal was not included in the provisional standards on the argument that consumers were not demanding ethically sourced products and there was no clear evidence of company cost savings from improved supply chain practices (SASB personal communication Dec 2016). There are other material

reasons that improved supply chain disclosure is necessary: meeting regulations regarding modern slavery, reducing reputational risk and to reduce environmental and social externalities which affect investors' other assets. Investors could benefit from improved disclosure of companies' supply chain policies and practices regarding environmental and social issues.

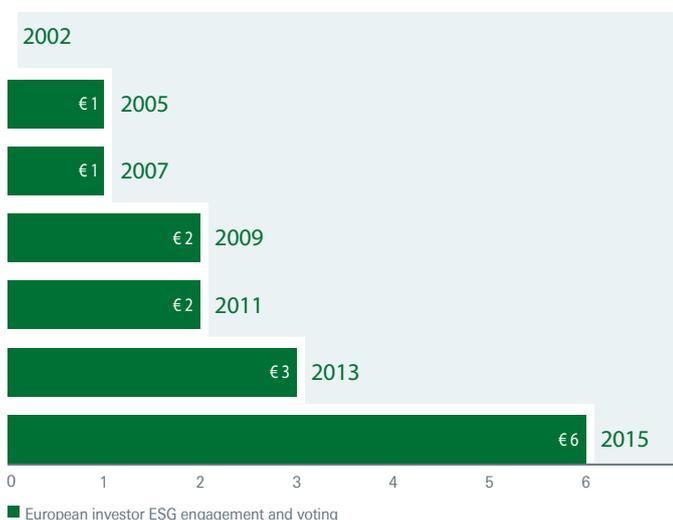
## 9 | The role of investors in expanding tobacco regulation and improving industry practices

This report has suggested that investors may be negatively impacted by the levels of smoking and low level of tobacco regulation impinging on economic growth. Investors are already recognising wider risks and opportunities from issues like climate change. A new trend could see investors becoming more engaged with companies and governments on tobacco regulation and business practices.

Stephen Covey (1989) observed that company management behaviour aligns with their perception of what investors want. While the industry has done an excellent job of delivering returns, if investors were to change their requirement, could company behavior change?

The fact that many asset owners with the strongest ESG policies have divested tobacco stocks, may have contributed to very low tobacco shareholder vote results. Over the past ten years, investor proposals at Altria and Philip Morris International have received very low support (~3-6%). A 2009 human rights vote received 25% support. Several lobbying transparency votes received 20-33% support (Proxy Monitor 2016). While, investors are increasingly undertaking ESG engagement, as shown in **Figure 10**, there has not been much tobacco industry success.

Figure 10: European investors engagement and voting (EUR bn)



Source: Sustainalytics and Cass Business School June 2016



Around half of global tobacco production relies on wood to cure/dry tobacco. It is estimated (Geist 1999) that tobacco farming leads to deforestation of 200,000 hectares/year, equivalent to 2.8% of global net forest cover losses in tropical countries (FAO 2016).

Oxford University researchers examining fossil fuel and other divestment campaigns concluded that direct impacts are likely to be limited: share prices are unlikely to suffer precipitous declines and holdings will likely be taken up by neutral investors. If divestment is to have any impact on company valuation, changes are needed in market norms and by constraining debt markets (Smith School, Oct 2013).

The Oxford researchers conclude that indirect effects are more important than the direct impact of divestment. Divestment campaigns will only 'succeed' if 'neutral' debt and/or equity investors change their views on the probability that a company will not achieve its future cash flow and cigarette volume forecasts. The divestment research suggests that anti-tobacco activists and investors should consider what else they can do besides divesting. The final section of our report provides a prediction as to how investors could move beyond divesting, such as by supporting the creation and use of comparable and more widespread tobacco regulation, stress-testing methodologies.

Despite the prominent role that investors played in the Paris Climate Summit and victories in the carbon risk proxy votes at European oil and gas companies (IPE Feb 2015), there is a significant asymmetry of information and resources between investors and companies. As well, some argue that while investors can convince some companies to change their business practices on the margin, fundamental changes to business models are unlikely.

Another caution on the prospects for tobacco industry engagement comes from a review of industry documents regarding how Philip Morris responded to a campaign on cigarette package health warnings. Wander and Malone (2006) found that while activists celebrated the company's reversal of its policy opposing labelling, executives privately described how they would yield little and benefit disproportionately from positive press stories.

In 2014, only 20% of the world's population were covered by government policies of adding health warnings to cigarette packages.



Notably, WHO (2004) warns governments and NGOs: “Do NOT participate in industry initiated dialogues as the industry portrays participation in these dialogues as endorsements” (emphasis in original). WHO (2008) also published a report on the industry’s efforts to thwart regulations. *“Although the industry sometimes makes expedient public statements to the contrary, it routinely seeks to maximize uptake of tobacco use, do all that is possible to ensure that tobacco users continue to be consumers and prevent the erosion of smoking opportunities by restrictions known to reduce smoking frequency and promote cessation”*.

## 10 | A new investor agenda

Despite potential difficulties, a new investor agenda for tobacco could emerge and could include both divestment and engagement strategies since divestment on its own is unlikely to change tobacco industry practices. This section examines actions that could become part of a cooperative investor initiative on tobacco.

Organisations such as the World Health Organisation (WHO), Bloomberg Philanthropies, the Gates Foundation and existing investor groups will likely have a key role to play in facilitating a potential investor tobacco agenda.

### 1 | Tobacco regulation stress-testing methodologies, reports and disclosure requirements

Carbon Tracker and the 2° Investing Initiative (2016) have pioneered analysis of fossil fuel asset stress-testing. The Financial Stability Board’s Taskforce on Climate-related Financial Disclosure has endorsed this idea and is recommending that companies and investors test whether their investments and business plans are aligned with the

objectives of the Paris Climate Agreement. As companies and investors develop climate risk stress-testing methodologies, there may be lessons that can be learned from and by the tobacco industry and its investors and analysts. Some tobacco sell-side analysts in the past have stress-tested the impact of particular national tobacco regulations. We suggest there is a need for improved, comparable and widespread tobacco regulation stress-testing.

Tobacco regulation stress-testing and company disclosure could draw on reporting of legal operational risks. For instance, companies could be required to report on and stress-test potential losses from tobacco regulations with different likelihoods of occurring. Scenarios could include WHO’s recommendation that all countries increase taxes to 75%+ of cigarette pack prices and strengthening of other WHO recommended policies.

The World Health Assembly of 194 countries’ health ministers have endorsed a set of nine global targets for the prevention and control of non-communicable diseases. One of the targets is a 30% reduction in the prevalence of current tobacco use in people aged 15+ by 2025 (WHO May 2013). Countries will report on their progress in implementing actions to meet these targets. Thus it seems logical that the 30% by 2025 target could become an over-arching stress-test for tobacco companies. Global tobacco volumes have on average declined by ~1.3%/year over 2013-15. Outside of China, the decline rate is 2.6% over the same period (AGI Aug 2016).

While tobacco analysts routinely track the potential for new tobacco regulations, Carbon Tracker (2016) demonstrated how coal company forecasts missed the collapse in U.S. coal prices. Similar analysis could be undertaken on the extent to which previous tobacco company growth scenarios accounted for regulations and if current scenarios include a potential acceleration in the decline of smoking.

For instance, Allianz Global Investors (Aug 2016) concludes that consensus sales and earnings growth for the largest five listed companies do not appear to incorporate expectations of accelerating decline in tobacco use. The industry has remained profitable in the face of declining volumes in developed markets due to industry consolidation, expansion into emerging markets and increasing prices for addicted consumers. “The inelasticity of tobacco can only be stretched so far and at some stage, [declining] volume pressures will create headwinds on profitability and headline growth”. These findings seem to support the need for improved, more comparable and widespread tobacco regulation and price/volume stress-testing. Governments could also set a stronger global tobacco reduction target and associated policies.

One equity analyst said (in the context of the proposed British American Tobacco acquisition of Reynolds) that ‘U.S. litigation [is] largely a thing of the past’ (Bristol Post Oct 2016). This view is likely widely held in the market. However, Fidelity Investments (2016) concludes that outside the U.S., litigation is a risk that is not priced into the market. For instance, provinces in Canada are suing the industry for tens of billions in healthcare costs. While these cases are under appeal, a litigation win could lead to other countries attempting similar action.

## 2 | Expansion of social and environmental standards for tobacco cultivation and processing. Assessment of if and how standards could be adopted as a loan condition by local and international banks/debt funds lending into the tobacco supply chain and be supported by government policies

Developing a Fair Trade and/or ‘sustainably produced’ tobacco certification may be controversial and seem contradictory. However, the industry likely needs to improve supply chain policies to meet regulatory requirements to eliminate child and forced labor. It could also be beneficial to strengthen tobacco’s role in broader agricultural sector efforts to reduce environmental impacts and improve agricultural worker livelihoods. Improved tobacco production standards could support efforts to reduce deforestation.

For instance, the Consumer Goods Forum and Banking Environment Initiative aim to phase out deforestation in soft commodity supply chains. Some banks are implementing standards such as only lending to palm oil producers working towards certified sustainable production (BEI 2016).

In the U.S., the tobacco industry started GAP Connections (Good Agricultural Practices) in 2013 to develop, maintain, and train farmers on crop, environmental and labor standards. Fifteen major tobacco companies are members, support is provided from university agricultural departments, and in 2015, 9,500 U.S. farmers were trained and 700 were to be assessed for compliance (Starnes, May 2015). This program could be expanded to companies’ international supply chains (where many ESG issues exist). The GAP standards could be assessed for how they support the UN Sustainable Development Goals related to the agricultural sector.

Research could also assess if these environmental and social standards improve farm productivity.

Promoting uptake of sustainable tobacco production standards could benefit from the support of emerging market banks and debt funds. While many development banks like the World Bank halted their tobacco lending many years ago, multi-lateral and national development banks could encourage or require loan providers with whom they do other business, to use a sustainably and equitably produced tobacco production standard as a loan condition. Government policies and legislation also could be supportive of such a standard. Institutional investors could encourage such a trend with their shareholdings in emerging market banks, investment in debt funds and use of trade finance.

If broad sustainability standards for the tobacco industry became a widespread loan condition, this could affect loan pricing (which Oxford research concluded is a condition for divestment campaign success).

## 3 | A definitive Economics of Tobacco report

The Stern Review on the Economics of Climate Change was a landmark report (HMT 2006). An equivalent report on tobacco could aim to assemble all existing evidence; close evidence gaps with country specific case studies and present a full economic analysis of how cutting tobacco use could spur global growth. Such a report could build on the 1999 World Bank/WHO report on the economics of tobacco in developing countries and our report’s assembling of relevant evidence (Section #3). The report could create the necessary justification for reluctant EM governments to accelerate regulations and for investors to use to engage with the industry.

## 4 | Investors could consider how to encourage governments to improve regulation, using evidence from an Economics of Tobacco report

Our report has suggested that the externalized costs of tobacco use threatens economic growth and investors’ wider portfolios, particularly in emerging markets. Just as investors played a key role in advocating for the Paris Climate Agreement, investors could encourage governments to implement the WHO Tobacco Control Convention. This is starting to happen. On World No Tobacco Day (31 May 2017) 53 investors with USD 3.8 trn in assets called on governments to support stronger regulation on tobacco control (PRI May 2017). The investor voice is a new development in the tobacco policy debate.

While it is unconventional, investors (particularly sovereign bond investors) could communicate support for tobacco regulation and taxation to finance ministries (as the government department responsible for taxation) as an indirect way to improve economic growth. For asset owners who have divested tobacco equity stocks, this would be a new way to implement their investment beliefs.

As well, this recommendation might be the only way for investors to try to influence the largest tobacco market: China's state-owned tobacco companies.

5 A broad investor coalition (including those who have divested) could use targeted shareholder proposals on tobacco regulation stress-testing, supply chain and marketing practices and lobbying activity transparency

Such an initiative could build on the experience gained in the Carbon Asset Risk investor initiative which is encouraging carbon-intensive companies to improve their climate risk management. Investors who might decide to re-invest in tobacco could set a condition that within a number of years, their re-investment would have had a decisive influence on the industry.

Asset owners who have divested from tobacco could still play a role by sharing their views with their peer asset owners who may be unable or unwilling to divest but could be willing to participate in a shareholder campaign to encourage the companies to improve their policies and practices. Divested investors could also play a role in calling on governments to enact stronger and enforce current tobacco regulations.

**Murray Birt**  
ESG Thematic Research Strategist  
✉ murray.birt@db.com

**Michael Lewis**  
Head of ESG Thematic Research  
✉ michael.lewis@db.com

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Michael Lewis

 michael.lewis@db.com

Murray Birt

 murray.birt@db.com