

THE PENNSYLVANIA STATE UNIVERSITY
SCHREYER HONORS COLLEGE

DEPARTMENT OF RISK MANAGEMENT

A NATURAL EXPERIMENT ON THE ENVIRONMENTAL PROTECTION AGENCY'S
LEGAL ENFORCEMENT AND ITS EFFECTS ON VOLKSWAGEN'S FOREIGN DIRECT
INVESTMENT IN THE UNITED STATES

CHARLES LANE BURROWS
SPRING 2018

A thesis
submitted in partial fulfillment
of the requirements
for baccalaureate degrees
in Management & Political Science
with honors in Legal Environment of Business

Reviewed and approved* by the following:

Daniel Cahoy
Professor of Business Law
Thesis Supervisor

Fiona Greaves
Clinical Assistant Professor of Business Law
Honors Adviser

* Signatures are on file in the Schreyer Honors College.

ABSTRACT

This thesis examines the relationship between criminal prosecution of corporations that violate Environmental Protection Agency (EPA) regulations and the potential effects on foreign direct investment. In order to examine this relationship, I considered a natural experiment involving Volkswagen's U.S. investments arising when the firm committed criminal fraud on two separate occasions by failing to disclose the use of technology known as a defeat device. In the first 1970s-era case of fraud, the EPA charged Volkswagen under a civil offense and settled out of court. In the second (more infamous) case from 2015, Volkswagen was prosecuted in criminal court for the same charges against both high-level executives as well as the corporation itself. My analysis suggests that, the EPA's choice to prosecute in civil court or criminal court has little impact on Volkswagen's investment strategies, and that ultimately larger macroeconomic factors such as the size of the automobile market in the United States are greater forces on investment strategy. This research implies that since the main goal of the EPA is to protect the environment, the agency should not be afraid to push heavy legal action against companies violating environmental laws, since it will not deter investment into the United States.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS	iii
INTRODUCTION STORY	1
HOW EPA ENFORCEMENT WORKS	5
VOLKSWAGEN’S FIRST VIOLATIONS (CONTROL)	7
VOLKSWAGEN’S SECOND VIOLATIONS (TEST)	13
TRACKING POST-CRIMINAL PROSECUTION INVESTMENTS.....	17
VOLKSWAGEN’S FUTURE FOREIGN DIRECT INVESTMENT IN U.S.....	22
ANALYSIS & IMPLICATIONS	26
FURTHER RESEARCH	31
BIBLIOGRAPHY.....	34

ACKNOWLEDGEMENTS

I would like to thank everyone who helped me through this process and worked with me to complete this thesis.

First, thank you to the Schreyer Honors College for putting me in a position to write research as extensive as this, I enjoyed the process and am thankful to now have a legal research piece to my name.

A big thank you to my thesis advisor, Daniel Cahoy, who helped me focus the topic of this thesis and asked me the hard questions that made me question my own assumptions and make this a better thesis.

Thank you to my honors advisor, Fiona Greaves, for agreeing to work with me on this topic and proofreading my writing.

I thank my family for providing comments on my thesis, for always supporting me in my academic pursuits, and giving me the opportunity to attend the greatest university in the country.

INTRODUCTION STORY

James Slade is a business executive for XS Platinum Mine, an Australian mining firm that has plant operations in a variety of locations including Alaska.¹ This mining operation is located in Alaska, along the Salmon River, and it extracts platinum from mineral reserves in the area. Mining sites such as these always have waste that needs to be discharged, such as phosphorus or aluminum. XS Platinum decided that they were going to dispose of their waste in the waterways of Alaska, specifically into the Salmon River located next to the mining site. Such activity is usually rare because the Environmental Protection Agency (EPA) sets guidelines on proper waste disposal methods and limits on the amounts of pollutants that can be found in the water through an act known as the Clean Water Act.² But, XS Platinum Mine chose to violate this act and as a result Slade and several executives faced serious legal consequences.

The Salmon River gets its name, unsurprisingly, because the river is chock full of salmon and thousands and thousands of fish can be seen in the water just by the human eye.³ Biologists that survey the area show in reports as far back as 1995 that even with the acceptable levels of pollution under the Clean Water Act, over 2,500 salmon could be seen by the naked eye on any given day.⁴ However, when biologists surveyed the Salmon River in 2011 the river was nothing like they had ever seen before. The water was so polluted and so murky that only *ten* salmon

¹ Lisa Demer, PLATINUM MINE CRIMINAL CHARGES A FIRST FOR ALASKA ANCHORAGE DAILY NEWS (2014), <https://www.adn.com/environment/article/platinum-mine-criminal-charges-first-alaska/2014/11/20/> (last visited Mar 26, 2018).

² Summary of the Clean Water Act, EPA (2018), <https://www.epa.gov/laws-regulations/summary-clean-water-act> (last visited Apr 2, 2018).

³ Lisa Demer, PLATINUM MINE CRIMINAL CHARGES A FIRST FOR ALASKA ANCHORAGE DAILY NEWS (2014), <https://www.adn.com/environment/article/platinum-mine-criminal-charges-first-alaska/2014/11/20/> (last visited Mar 26, 2018).

⁴ *Id.*

could be seen by the naked eye.⁵ Something had happened to the Salmon River, and an investigation was opened into the matter to determine how to remedy the situation.

At first glance, EPA enforcement of its regulations can be complicated. The Environmental Protection Agency has the ability to pursue cases against people or corporations that violate their environmental regulations through either civil or as criminal cases.⁶ Many of the important acts, such as the Clean Water Act have a variety of regulations based on the acts in the Code of Federal Regulations (CFR). The case against James Slade would be an example of a criminal case, where charges were pressed against him as an individual and he served jail time. A civil case, on the other hand, can involve people or corporations that violate regulations such as the Clean Water Act, and those involved can be sued for compensatory and/or punitive damages. Criminal cases that the EPA chooses are carried out by EPA Special Agents, as part of the EPA Criminal Investigation Division (CID).⁷ These Special Agents are granted the full power of law enforcement officers and can enforce not only environmental law, but any other federal law as well.⁸

In the case of XS Platinum Mine, the EPA chose to pursue a criminal case against the executives from XS Platinum Mine, including Slade.⁹ Slade, while serving as Chief Operating Officer for XS Platinum Mine, knowingly continued to dump pollutants into the Salmon River in

⁵ Lisa Demer, PLATINUM MINE CRIMINAL CHARGES A FIRST FOR ALASKA ANCHORAGE DAILY NEWS (2014), <https://www.adn.com/environment/article/platinum-mine-criminal-charges-first-alaska/2014/11/20/> (last visited Mar 26, 2018).

⁶ Enforcement Basic Information, EPA (2018), <https://www.epa.gov/enforcement/enforcement-basic-information> (last visited Apr 2, 2018).

⁷ Criminal Enforcement: Special Agents, EPA (2016), <https://www.epa.gov/enforcement/criminal-enforcement-special-agents>.

⁸ *Id.*

⁹ Lisa Demer, PLATINUM MINE CRIMINAL CHARGES A FIRST FOR ALASKA ANCHORAGE DAILY NEWS (2014), <https://www.adn.com/environment/article/platinum-mine-criminal-charges-first-alaska/2014/11/20/> (last visited Mar 26, 2018).

Alaska from his plant operations despite reports showing that the toxicity levels exceeded those allowed under the Clean Water Act. The Court found Slade guilty on two criminal counts of violating the Clean Water Act, both felony charges.¹⁰ Since the Court determined that he was unable to pay fines, he was sentenced to a 12-month prison sentence and 12 months of probation following his release¹¹. Slade was the third executive from his company to be charged criminally for these acts.¹²

The case of Slade and XS Platinum is an example of one route that can be taken for resolving cases. But when working through criminal court, reaching a guilty verdict can be difficult and cost an exorbitant amount of time. These violations of the Clean Water Act occurred in 2010 and 2011 but it took until 2016 before a conviction could be reached on Slade.¹³ Not only did the length of the prosecution affect the outcome, but the burden of proof in a criminal court is much higher than if a civil approach were to be taken. In order to find Slade guilty on these charges, a criminal prosecutor must prove beyond any reasonable doubt that Slade committed these acts.¹⁴ If this is too much for a prosecutor to take on, or they want a quicker resolution, they will often opt for civil court instead.

Environmental law in the United States is primarily enforced by the Environmental Protection Agency, one of the many regulatory agencies in the United States. Part of how the

¹⁰ Mine operator sentenced for polluting Alaska River, THE UNITED STATES DEPARTMENT OF JUSTICE (2016), <https://www.justice.gov/usao-ak/pr/mine-operator-sentenced-polluting-alaska-river> (last visited Feb 26, 2018).

¹¹ *Id.*

¹² Summary of Criminal Prosecutions, EPA, https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm?action=3&prosecution_summary_id=2868 (last visited Jan 22, 2018).

¹³ Lisa Demer, PLATINUM MINE CRIMINAL CHARGES A FIRST FOR ALASKA ANCHORAGE DAILY NEWS (2014), <https://www.adn.com/environment/article/platinum-mine-criminal-charges-first-alaska/2014/11/20/> (last visited Mar 26, 2018).

¹⁴ Enforcement Basic Information, EPA (2018), <https://www.epa.gov/enforcement/enforcement-basic-information> (last visited Apr 2, 2018).

Environmental Protection Agency operates is that it has the ability to pursue charges against firms who violate environmental laws through either criminal court, civil court, or both.¹⁵ These cases are different in a variety of ways, but the largest difference is that criminal cases can be used to obtain prison sentencing as a means of punishment along with fines. Civil court does not carry this burden, only fines or settlements.

For firms from countries outside the United States with weaker environmental enforcement, it might be difficult or costly to adjust operations to comply with the strict environmental standards in the United States. Companies might avoid investing here, or they simply might try their luck and invest anyway but keep operations the same and hope for the best. If these companies try to expand into the United States without complying to the strict regulations and were to be exposed, and executives faced jail time versus just paying fines, that might be a large enough deterrent for some firms to avoid investing in the United States. After the case against Slade, federal prosecutors dropped cases against the remaining executives because the company ceased to exist and there was no longer an organization to prosecute.¹⁶ Based on this, one might conclude that criminal prosecutions influenced the company's operations in Alaska and changed their level of foreign direct investment into the United States.

This thesis aims to examine this relationship between enforcement and investment using a case study of Volkswagen. The firm is well known to have committed one of the largest cases of fraud in environmental law history, selling hundreds of thousands of cars in the United States that were knowingly avoiding regulations by installing what are called “defeat devices” on their

¹⁵ Enforcement Basic Information, EPA (2018), <https://www.epa.gov/enforcement/enforcement-basic-information> (last visited Apr 2, 2018).

¹⁶ Lisa Demer, FEDS PROPOSE TO DISMISS POLLUTION CASE AGAINST DEFUNCT MINING COMPANY ANCHORAGE DAILY NEWS, <https://www.adn.com/alaska-news/environment/2017/01/04/feds-propose-to-dismiss-pollution-case-against-defunct-mining-company/> (last visited Mar 27, 2018).

diesel engine vehicles.¹⁷ This research will be conducted utilizing a natural experiment (e.g., a historical comparison) between an earlier case in which Volkswagen was charged with criminal fraud using defeat devices in the 1970s as a control, and then examining the effects of the same charges being brought against Volkswagen for its infamous 2015 scandal. I will examine the relationship in each case between their investment before the charges, during the prosecution, and where their investment is today. My initial thesis is that the use of criminal proceedings by the Environmental Protection Agency against executives in Volkswagen impacted their company's level of foreign direct investment into the United States.

HOW EPA ENFORCEMENT WORKS

Before going into the specifics of EPA enforcement, it is important to discuss where the EPA gets its legal authority. Understanding the EPA's legal authority is important in order to understand how enforcement decisions are made by the agency.

For the majority of the United States' existence, there were very few, if any, forms of environmental laws in place.¹⁸ Most environmental laws and statutes that we are familiar with today come from the 1960s. Every environmental law that has been passed post-1970 has been passed under Article I, Section 8 of the Constitution, the Commerce Clause.¹⁹ The EPA then

¹⁷ Russell Hotten, VOLKSWAGEN: THE SCANDAL EXPLAINED BBC NEWS (2015), <http://www.bbc.com/news/business-34324772> (last visited Jan 13, 2018).

¹⁸ EPA History, EPA (2018), <https://www.epa.gov/history> (last visited Apr 4, 2018).

¹⁹ Meyer, Robinson. "How the U.S. Protects the Environment, From Nixon to Trump." The Atlantic. March 29, 2017. Accessed January 13, 2018. <https://www.theatlantic.com/science/archive/2017/03/how-the-epa-and-us-environmental-law-works-a-civics-guide-pruitt-trump/521001/>.

employs rulemaking under the Administrative Procedures Act (APA) to craft regulations, eventually embodied in the CFR.²⁰

The most relevant law to the Volkswagen Scandal is the Clean Air Act. According to Section 203 (a)(3)(b) of the Clean Air Act (CAA):

The following acts and the causing thereof are prohibited—
... for any person to manufacture or sell, or offer to sell, or install, any part or component intended for use with, or as part of, any motor vehicle or motor vehicle engine, where a principal effect of the part or component is to bypass, defeat, or render inoperative any device or element of design installed on or in a motor vehicle or motor vehicle engine in compliance with regulations under this subchapter, and where the person knows or should know that such part or component is being offered for sale or installed for such use or put to such use;²¹

The repercussions of this can vary depending on how the government wants to prosecute the company. One of the possible repercussions of violating this code is jail time for executives, which can potentially be a deterrent for foreign direct investment into the United States. If executives are aware of the issue, according to the Clean Air Act they are in violation of this specific section. If this is the case, these executives might avoid investing in the United States to keep themselves from facing criminal charges.

Volkswagen was found to be in violation of the Clean Air Act on two separate instances: Once before they opened a plant in New Stanton, Pennsylvania in the 1970s and again in 2015 during the infamous “Dieselgate” scandal.²² The next sections will examine the effects that

²⁰ 5 U.S.C. §551 et seq. (1946)

²¹ 42 U.S.C. §7522 (2013)

²² Megan Geuss, VOLKSWAGEN'S EMISSIONS CHEATING SCANDAL HAD A LONG, COMPLICATED HISTORY ARS TECHNICA (2017), <https://arstechnica.com/cars/2017/09/volkswagens-emissions-cheating-scandal-has-a-long-complicated-history/> (last visited Mar 14, 2018).

Volkswagen's violations of the Clean Air Act had on their level of foreign direct investment in the United States.

VOLKSWAGEN'S FIRST VIOLATIONS (CONTROL)

Long before Volkswagen's emissions scandal, Volkswagen made an enormous push into the United States by opening its first plant in the United States in New Stanton, Pennsylvania in 1976.²³ At the time, it was the largest foreign automobile factory in the United States and was one of the largest foreign direct investments ever to be made in the United States at \$300 million dollars.²⁴ An increasingly competitive U.S. market meant that Volkswagen needed to focus more on the region if it wanted to maintain a market presence.²⁵ That pressure was particularly strong in the 1970s. Sales dropped from 570,000 units for Volkswagen in the United States in 1970 down to 201,670 units sold in the U.S. in 1976.²⁶ Projections continued on this trend, so unless Volkswagen wanted to lose the entire United States market, they would have to consider investing in the United States. That does not mean Volkswagen would be investing for free, however. A number of economic incentives were offered by multiple states to encourage Volkswagen to build their plant in their home state.²⁷

There are a variety of reasons that Volkswagen chose to invest in such a large plant in the United States, and it took a bidding war for the firm to decide on setting up shop in Pennsylvania.²⁸ A variety of incentives were provided to Volkswagen to encourage the

²³ David Aviel, *Volkswagen's Investment in the United States: A Pacesetter for Foreign Investment*, (1980).

²⁴ *Id.*

²⁵ *Id.*

²⁶ *Id.*

²⁷ *Id.*

²⁸ *Id.*

investment, including, but not limited to, a \$40 million low-interest loan, a \$30 million infrastructure investment in the form of a new railroad and highway, and property tax breaks from schools and townships in the area.²⁹ The economic incentives for attracting this type of foreign direct investment are staggering when it comes to job creation for the local area. But how do environmental regulations play into the decision to invest?

One of the reasons that Volkswagen was able to build the plant in Pennsylvania was a loosening of environmental regulations on the company. There were concerns over the iconic Beetle being environmentally unfriendly and since its air-cooled engine was more difficult to modify, Volkswagen could not easily adjust the emissions on the model.³⁰ On top of the emissions issues with their cars, the plant itself was facing scrutiny over its air pollution. In fact, the EPA issued a statement that hydrocarbon pollution was well above the federal limit, and unless the governor of Pennsylvania, Governor Shapp, and Volkswagen could agree to find a way to limit the hydrocarbon pollution at the plant they would not be able to open it.³¹ It is important to note that all of this was occurring in the 1970s, long before Volkswagen's infamous emissions scandal and before electric vehicles entered the market to compete with standard gasoline and diesel vehicles. Based on this scenario for Volkswagen, the logic would be that Volkswagen would be denied this investment due to environmental regulations.

Fortunately for Volkswagen, a new method of examination of plants by the EPA had just been announced, called the "bubble" policy.³² The introduction of this policy allowed

²⁹ Associated Press, NO REGRETS IN PENNSYLVANIA OVER VW DEAL : OFFICIALS SANGUINE AFTER CAR MAKER JILTED PLANT LOS ANGELES TIMES (1987), http://articles.latimes.com/1987-12-02/business/fi-17231_1_low-interest-loan (last visited Mar 14, 2018).

³⁰ David Aviel, *Volkswagen's Investment in the United States: A Pacesetter for Foreign Investment*, (1980).

³¹ Business Week, *Pollution may kill VW's Rabbit plant*, 26 (1977).

³² "Bubble" Policy Added to EPA's Cleanup Strategy, EPA (1979), <https://archive.epa.gov/epa/aboutepa/bubble-policy-added-epas-cleanup-strategy.html> (last visited Mar 14, 2018).

Volkswagen, despite being over the federal limit under certain criteria, to continue with their investment. A 1979 press release from the EPA announcing this new policy says that it allows plant managers to propose their own emission standards, where they can tighten standards when it is easy for them to do or less expensive, and relax standards or even have no standards at all where it may be too costly for the plant.³³ This policy allowed Volkswagen to treat the plant like a “bubble”, where all the pollution was contained to the plant, and by reducing their pollution in certain areas were allowed to be over the federal limit in other areas. Pollution trade-offs were an important part of allowing the foreign direct investment to take place, because without it Volkswagen would never be allowed to open the plant. Looking at this relationship, it shows that relaxing environmental regulations for a multinational firm was an incentive for Volkswagen to invest in the United States. It is not surprising that relaxing environmental regulations can be effective in attracting investment, and the same logic should apply to criminal prosecutions for environmental crimes.

In the early 1970s, before its initial investment, Volkswagen had a run-in with the EPA that is shockingly similar to the highly publicized scandal of 2014-2015. In July of 1973, the EPA sent out a press release saying that around 25,000 Volkswagen vehicles were equipped with “defeat devices” that could sense low-temperature environments and would cut the car’s exhaust recirculation system.³⁴ After this press release, the EPA sent a report to Congress in January of 1974, just six months later, saying that they had opened an investigation into Volkswagen.³⁵ The investigation was for these same defeat devices from the past year, and they were investigating a

³³ “Bubble” Policy Added to EPA’s Cleanup Strategy, EPA (1979), <https://archive.epa.gov/epa/aboutepa/bubble-policy-added-epas-cleanup-strategy.html> (last visited Mar 14, 2018).

³⁴ Megan Geuss, VOLKSWAGEN’S EMISSIONS CHEATING SCANDAL HAD A LONG, COMPLICATED HISTORY ARS TECHNICA (2017), <https://arstechnica.com/cars/2017/09/volkswagens-emissions-cheating-scandal-has-a-long-complicated-history/> (last visited Mar 14, 2018).

³⁵ *Id.*

“failure to report the existence of and the use of possible defeat devices by Volkswagen on a substantial number of 1973 model year vehicles”.³⁶ Failure to disclose their existence under any circumstance is illegal and can be considered fraud, as outlined in the Clean Air Act.³⁷ The EPA report to Congress states that on July 17, 1973, the case was referred to the Department of Justice for appropriate legal action.³⁸

Ultimately, the results of this violation for Volkswagen ended up being reasonably relaxed. The case ended up as a civil suit and was settled outside of court, with Volkswagen agreeing to pay \$120,000 in fines along with never admitting any wrongdoing for their actions.³⁹ No criminal charges were brought against any executives. Since there were no criminal charges brought against anyone in Volkswagen, the first cheating scandal prosecuted by the EPA in the 1970s cannot show the effects on foreign direct investment, which is why this lack of prosecution is used as the control. In this natural experiment, there are serious implications for Volkswagen and their investment patterns. First, it shows that the EPA has already prosecuted Volkswagen for using defeat devices in the past. Second, it shows that a settlement means almost nothing to a multinational firm like Volkswagen. In terms of fines, \$125,000 is a drop in the pond for one of the largest automakers in the world and will not seriously impact investments. Volkswagen continued throughout the decade to build their New Stanton plant and was even encouraged by the EPA to invest based on the creation of their bubble policy.⁴⁰ One would

³⁶ PROGRESS IN THE PREVENTION & CONTROL OF AIR POLLUTION IN 1973, PROGRESS IN THE PREVENTION & CONTROL OF AIR POLLUTION IN 1973 35 (1974).

³⁷ 42 U.S.C. §7522 (2013)

³⁸ PROGRESS IN THE PREVENTION & CONTROL OF AIR POLLUTION IN 1973, PROGRESS IN THE PREVENTION & CONTROL OF AIR POLLUTION IN 1973 35 (1974).

³⁹ Megan Geuss, VOLKSWAGEN'S EMISSIONS CHEATING SCANDAL HAD A LONG, COMPLICATED HISTORY ARS TECHNICA (2017), <https://arstechnica.com/cars/2017/09/volkswagens-emissions-cheating-scandal-has-a-long-complicated-history/> (last visited Mar 14, 2018).

⁴⁰ "Bubble" Policy Added to EPA's Cleanup Strategy, EPA (1979), <https://archive.epa.gov/epa/aboutepa/bubble-policy-added-epas-cleanup-strategy.html> (last visited Mar 14, 2018).

naturally expect that, if there is going to be an impact on foreign direct investment, it would have to be tied to criminal charges.

Cases like the XS Platinum Mine are much rarer: a criminal prosecution accompanied by jail time. But one assumes this type of prosecution will have enormous implications for companies that might be engaging in criminal fraud of an environmental nature in the United States. According to Ted Owens, Assistant Special Agent in Charge for the U.S. Environmental Protection Agency, “This sentence of incarceration shows that EPA is serious about holding people who knowingly break our critically important clean water laws to account.”⁴¹ This mindset Owens has where the EPA wants to push stronger prosecution cases is a growing sentiment within the EPA, and shows that EPA prosecutions can be politically driven, similar to the prosecutions, or lack thereof, during the 2008 financial crisis. This is an important concept that separates the first prosecution of Volkswagen in the 1970s versus the second prosecution, discussed later, as the political climate was on a trajectory towards stronger proceedings against companies. This changing political climate started around the year 2008, when the global recession hit the United States.⁴²

For all the things that the Obama administration did well when it comes to creating jobs and stimulating the economy, many believe the administration could have done much better in handling the global recession of 2008, which stemmed from the collapse of the housing market in the United States.⁴³ It is generally believed that a serious driver of the collapse of the housing

⁴¹ Mine operator sentenced for polluting Alaska River, THE UNITED STATES DEPARTMENT OF JUSTICE (2016), <https://www.justice.gov/usao-ak/pr/mine-operator-sentenced-polluting-alaska-river> (last visited Feb 26, 2018).

⁴² Glenn Greenwald, THE UNTOUCHABLES: HOW THE OBAMA ADMINISTRATION PROTECTED WALL STREET FROM PROSECUTIONS | GLENN GREENWALD THE GUARDIAN (2013), <https://www.theguardian.com/commentisfree/2013/jan/23/untouchables-wall-street-prosecutions-obama> (last visited Mar 10, 2018).

⁴³ *Id.*

market was large Wall Street firms committing fraud on the market. People across the board were aware that fraud was \ being committed. Alan Greenspan, the former Federal Reserve Chair, testified in front of Congress that “a lot of that stuff was just plain fraud”.⁴⁴ This means the government was aware that fraud was being committed by Wall Street, and Wall Street was prepared to fight criminal investigations. According to *The Untouchables*, a 2011 book written by Glenn Greenwald about the financial crisis, Wall Street investors were ready to face criminal fraud charges and their attorneys were expecting some prosecutions from the government.⁴⁵ Yet, prosecutions from the Obama administration never came for these investors. In the aftermath of the financial crisis, only one Wall Street executive was prosecuted for fraud: Kareem Serageldin, a senior trader at Credit Suisse.⁴⁶ Comparatively, after the savings-and-loans financial crisis that occurred during the 1980s, the government prosecuted and sentence over one thousand bankers for their actions.⁴⁷ There are many speculations as to why this is the case, but regardless of the reasoning the public outcry was sensational. Articles can be found on many news sites slamming the Obama administration for its lack of prosecution and allowing Wall Street to not only take a government bailout, but avoid any legal repercussions for causing the financial crisis. Based on all of this negative press for the U.S. government, Volkswagen picked a poor time to be caught committing the violations that they were. This next section is dedicated to outlining the specific crimes Volkswagen committed and the response of the EPA to these crimes.

⁴⁴ Glenn Greenwald, *THE UNTOUCHABLES: HOW THE OBAMA ADMINISTRATION PROTECTED WALL STREET FROM PROSECUTIONS* | GLENN GREENWALD *THE GUARDIAN* (2013), <https://www.theguardian.com/commentisfree/2013/jan/23/untouchables-wall-street-prosecutions-obama> (last visited Mar 10, 2018).

⁴⁵ *Id.*

⁴⁶ William D. Cohan, *HOW WALL STREET'S BANKERS STAYED OUT OF JAIL* *THE ATLANTIC* (2015), <https://www.theatlantic.com/magazine/archive/2015/09/how-wall-streets-bankers-stayed-out-of-jail/399368/> (last visited Mar 10, 2018).

⁴⁷ *Id.*

VOLKSWAGEN'S SECOND VIOLATIONS (TEST)

One of the largest prosecutions by the Environmental Protection Agency and the Department of Justice occurred in September of 2015. This is when the Environmental Protection Agency revealed to the public that Volkswagen, one of the largest global car manufacturers, was defrauding consumers, regulators, and enforcement agencies by installing software in its diesel vehicles that allowed them to produce test results that were inaccurate and misleading.⁴⁸ There are many moving parts to this issue and it can be difficult to understand the full scope of the violations committed by Volkswagen and how they were able to avoid regulation for so long.

The troubles of Volkswagen emerged in an unlikely place: West Virginia. The initial discovery of Volkswagen's illegal activity started in a research lab at West Virginia University, which was explained succinctly in an NPR segment about this laboratory.⁴⁹ Run by assistant professor Arvind Thiruvengadam, this research lab was given a grant from the International Council on Clean Transportation to perform standard emissions tests on various diesel vehicles in the United States market.⁵⁰ At the time, Volkswagen was claiming that their vehicles were "environmentally friendly and fuel efficient"⁵¹. It was during these tests that doubts were first raised about Volkswagen's claims of providing environmentally friendly diesel vehicles. In laboratory conditions there were no issues with the Volkswagen vehicles, but they were unable to replicate the emissions measurements they were getting when the vehicles were used during road tests.⁵² At this point, the researchers became skeptical of the claims being made by Volkswagen.

⁴⁸ Ginton, Sonari. "How A Little Lab In West Virginia Caught Volkswagen's Big Cheat." NPR. September 24, 2015. Accessed January 13, 2018. <https://www.npr.org/2015/09/24/443053672/how-a-little-lab-in-west-virginia-caught-volkswagens-big-cheat>.

⁴⁹ *Id.*

⁵⁰ *Id.*

⁵¹ *Id.*

⁵² *Id.*

The suspicion by the researchers at the time was that Volkswagen was using what is called a defeat device.⁵³ What exactly is a defeat device and why is it illegal?

A defeat device, according to Section 86.1801-01 of the CFR, is classified as an auxiliary emission control device (AECD) that reduces the effectiveness of the emission control system under conditions which may reasonably be expected to be encountered in normal vehicle operation and use.⁵⁴ However, there are four unique caveats that would allow a manufacturer to use a defeat device. First (1), if the conditions of this device are included in the Federal emission test procedure it cannot be considered a defeat device.⁵⁵ Also, (2) if the need for the AECD is justified in terms of protecting the vehicle against damage or accident,⁵⁶ (3) if the AECD does not go beyond the requirements of engine starting⁵⁷, or (4) the AECD applies only to emergency vehicles and is used as a way to prevent the vehicle from “losing speed, torque, or power due to abnormal conditions of the emission control system, or in terms of preventing such abnormal conditions from occurring” or “preventing such abnormal conditions from occurring, during operation related to emergency response”⁵⁸. Based on this set of criteria, the AECD that Volkswagen had installed does not fit any of these exceptions. The conditions of the device were not included in the Federal emission test procedure, rather its effects were discovered by the aforementioned researchers at West Virginia. There were no justifications made to argue the device protected the vehicles from damage or protecting the environment since they had kept the existence of the device hidden, and

⁵³ Glinton, Sonari. "How A Little Lab In West Virginia Caught Volkswagen's Big Cheat." NPR. September 24, 2015. Accessed January 13, 2018. <https://www.npr.org/2015/09/24/443053672/how-a-little-lab-in-west-virginia-caught-volkswagens-big-cheat>.

⁵⁴ "40 CFR 86.1803-01 - Definitions." LII / Legal Information Institute. Accessed January 13, 2018. <https://www.law.cornell.edu/cfr/text/40/86.1803-01>.

⁵⁵ *Id.*

⁵⁶ *Id.*

⁵⁷ *Id.*

⁵⁸ *Id.*

it was not used on any emergency vehicles. As such, the AECD that Volkswagen had installed on the seven different models of consumer vehicles can be classified under the legal definition of a defeat device.

A Consumer Reports report outlines the different Volkswagen (and subsidiary) vehicles that were affected by these defeat devices.⁵⁹ The number of vehicles that fall under the umbrella of affected vehicles according to Volkswagen is about 85,000 vehicles⁶⁰. The compensation for owners of these vehicles could range greatly. One option for owners was to sell their vehicle back to Volkswagen at “clean trade-in value”, which is determined by the National Automobile Dealers Association Used Car Guide.⁶¹ Another option for owners was to have the necessary modifications to make their vehicles compliant for free at any Volkswagen dealership.⁶² On top of this, any of these vehicle owners received cash compensation that could range from \$5,500 to \$9,900, depending on a variety of factors such as model, features, etc.⁶³ This level of widespread fraud by Volkswagen did not just end with settling with consumers, though. The EPA now had to decide how to pursue their case against Volkswagen.

Under §207 (c)(1) of the Clean Air Act, the EPA may mandate the manufacturer issue a recall when the EPA determines that a substantial number of vehicles available on the market do not meet EPA regulations⁶⁴. As a result of this recall, Volkswagen was forced to recall 500,000

⁵⁹ Jeff S. Bartlett, Michelle Naranjo & Jeff Plungis, GUIDE TO THE VOLKSWAGEN EMISSIONS RECALL CONSUMER REPORTS, <https://www.consumerreports.org/cro/cars/guide-to-the-volkswagen-dieselgate-emissions-recall-> (last visited Jan 22, 2018).

⁶⁰ *Id.*

⁶¹ *Id.*

⁶² *Id.*

⁶³ *Id.*

⁶⁴ Laws and Regulations related to Volkswagen Violations, (2016), <https://www.epa.gov/vw/laws-and-regulations-related-volkswagen-violations> (last visited Jan 13, 2018).

vehicles in the United States.⁶⁵ In addition to the recall, the EPA has the ability to levy a \$37,500 fine for every car affected in the U.S., bringing the total potential fines up to roughly \$18 billion⁶⁶.

On top of these civil settlements, the additional criminal penalties continued to be piled onto Volkswagen. These criminal charges are not easy to pursue, but the Obama administration's Justice Department sought to send a message that they were not going to allow corporations to evade the law. The Obama administration faced heavy criticism following the 2008 financial crisis for not pushing criminal charges on the banks responsible for the recession.⁶⁷ This could explain the strong focus on Volkswagen and pursuing criminal charges against the company. In a *New York Times* article about these criminal charges, then Attorney General Sally Yates issued a policy in September 2015 to prosecutors in the Justice Department telling them to focus on criminal prosecutions when dealing with company officials from the second the investigation starts.⁶⁸ Due to this, the case against Volkswagen was prosecuted from the first moment with the intention of pursuing criminal charges.⁶⁹ In January 2017 Volkswagen pled guilty to three felony counts of conspiracy to commit fraud, obstruction of justice and entry of goods by false statement charges.⁷⁰ Since these charges were levied against Volkswagen as a corporation, jail time is not on the table as a punishment. Instead, Volkswagen underwent major reforms and audits from the U.S.

⁶⁵ Russell Hotten, VOLKSWAGEN: THE SCANDAL EXPLAINED BBC NEWS (2015), <http://www.bbc.com/news/business-34324772> (last visited Jan 13, 2018).

⁶⁶ *Id.*

⁶⁷ Glenn Greenwald, THE UNTOUCHABLES: HOW THE OBAMA ADMINISTRATION PROTECTED WALL STREET FROM PROSECUTIONS | GLENN GREENWALD THE GUARDIAN (2013), <https://www.theguardian.com/commentisfree/2013/jan/23/untouchables-wall-street-prosecutions-obama> (last visited Mar 10, 2018).

⁶⁸ Tabuchi, Hiroko, Jack Ewing, and Matt Apuzzo. "6 Volkswagen Executives Charged as Company Pleads Guilty in Emissions Case." *The New York Times*. January 11, 2017. Accessed February 06, 2018. <https://www.nytimes.com/2017/01/11/business/volkswagen-diesel-vw-settlement-charges-criminal.html>.

⁶⁹ *Id.*

⁷⁰ Reuters. "Volkswagen Pleads Guilty to 3 Felony Counts in Diesel Emissions Scandal." *Fortune*. Accessed February 11, 2018. <http://fortune.com/2017/03/10/vw-emissions-scandal-guilty/>.

government including a 3-year stint where an independent monitor was responsible for oversight on all of Volkswagen's operations.⁷¹ VW also paid \$4.3 billion in fines based on these charges, which is a significant reduction in the potential \$34 billion in fines under sentencing guidelines.⁷² These are serious charges levied against Volkswagen in terms of both potential jail time and fines, but did it have an effect on their investment into the United States market after the scandal came to light?

TRACKING POST-CRIMINAL PROSECUTION INVESTMENTS

Tracking Volkswagen's foreign direct investment thus far has lined up fairly well with the timing of these two EPA investigations, and this time is no different. After the closing of the New Stanton plant, Volkswagen had no investments in the United States for over two decades.⁷³ It was not until May 24, 2011, that Volkswagen decided to give the United States market another try and open their second ever plant in the U.S., in Chattanooga, Tennessee.⁷⁴ Volkswagen was making promises to bring a \$1 billion dollar investment and create 2,000 related jobs in the area, to create the new 2012 Jetta.⁷⁵ This created a bidding war for the company's attractive investment, but eventually Tennessee won the contract thanks to a generous subsidy package⁷⁶.

⁷¹ Reuters. "Volkswagen Pleads Guilty to 3 Felony Counts in Diesel Emissions Scandal." Fortune. Accessed February 11, 2018. <http://fortune.com/2017/03/10/vw-emissions-scandal-guilty/>.

⁷² *Id.*

⁷³ Paul A. Eisenstein, VW IS BACK IN THE USA AND AIMING HIGH WITH NEW PLANT NBCNEWS.COM (2011), <http://www.nbcnews.com/id/43159310/ns/business-autos/t/vw-back-usa-aiming-high-new-plant/#.WsRPzExFz5c> (last visited Apr 4, 2018).

⁷⁴ Chattanooga Facts, VOLKSWAGEN GROUP OF AMERICA, <http://www.volkswagengroupofamerica.com/chattanooga-facts> (last visited Mar 22, 2018).

⁷⁵ Volkswagen's Tennessee Subsidy Deal: Are Taxpayers Being Taken for a Ride?, GOOD JOBS FIRST, <https://www.goodjobsfirst.org/volkswagen%E2%80%99s-tennessee-subsidy-deal-are-taxpayers-being-taken-ride> (last visited Mar 22, 2018).

⁷⁶ *Id.*

In this subsidy package, the state of Tennessee made some serious promises to Volkswagen. Some of these promises to Volkswagen included, but were not limited to, a 1,350 acre plot of land valued at \$81 million, \$30 million from state and local governments for worker training programs, as well as over \$200 million in job tax credits over 20 years.⁷⁷ There were a variety of economic incentives provided to the company, but unlike the New Stanton plant there were no trade-offs on environmental issues or any sort of environmental issues provided to Volkswagen for their second plant. This type of learning and readjustment by Volkswagen is the relationship the EPA hopes for by giving companies flexibility on environmental issues: rather than blocking investment and discouraging future investment, they can gain continued investment in the United States by working with the company. This seems to be the effect for Volkswagen and allowed this much larger investment to fall into place.

As detailed in Chapter 4, as a result of the scandal, the immediate effects on investment began to take shape. However, the effects on the plant in Chattanooga, Volkswagen's main foreign direct investment, are less pronounced. About one year after the scandal, in November 2016, Volkswagen announced it would be cutting 30,000 jobs globally as part of its recovery efforts during the emissions scandal.⁷⁸ With a potential \$18 billion in fines down the road for the company, Volkswagen needed to free up some cash to make sure they can pay off these fines. What is surprising, though, is that out of 30,000 jobs globally, none of these jobs were lost at the

⁷⁷ Volkswagen's Tennessee Subsidy Deal: Are Taxpayers Being Taken for a Ride?, GOOD JOBS FIRST, <https://www.goodjobsfirst.org/volkswagen%E2%80%99s-tennessee-subsidy-deal-are-taxpayers-being-taken-ride> (last visited Mar 22, 2018).

⁷⁸ UPDATE: Volkswagen to shed 30,000 jobs; company says cuts will have 'no effect' in Chattanooga, TIMESFREEPRESS.COM, <http://www.timesfreepress.com/news/volkswagen/story/2016/nov/18/volkswagen-shed-30000-jobs-cutting-costs-after-scandal/398486/> (last visited Mar 22, 2018).

Chattanooga plant.⁷⁹ A news article from a Tennessee paper confirms this fact. Spokesman for the plant in Chattanooga, Scott Wilson, told the paper, “The construction project for the plant expansion to build the midsize SUV and the production of Passats continues as before. We are currently in a ramp-up phase of the all-new Passat per our planned schedule.”⁸⁰ Not only was the Chattanooga plant unaffected by the scandal with layoffs, they were planning on increasing production in the United States.

Surprisingly, Volkswagen bounced back fairly well from the scandal, all things considered. Beyond the fines and sanctions, one of the first things Volkswagen did was start a buyback for all of the vehicles on the market with the defeat device installed.⁸¹ By August 2017, Volkswagen had bought back over 308,000 affected vehicles at a cost of \$6.4 billion to the company.⁸² This helped to restore faith in the company from consumers, and sales actually reflect it. Since the scandal broke in 2015 and the initial dip in sales, the company has been seeing a quick rebound in sales.⁸³ For example, a *New York Times* article showed that sales in the month of September from 2016 to 2017 actually rose 33%, in a market where car sales as a whole are declining.⁸⁴ These rebounding sales were something that executives expected and counted on, but that does not mean the company is out from under the microscope just yet.

⁷⁹ UPDATE: Volkswagen to shed 30,000 jobs; company says cuts will have 'no effect' in Chattanooga, TIMESFREEPRESS.COM, <http://www.timesfreepress.com/news/volkswagen/story/2016/nov/18/volkswagen-shed-30000-jobs-cutting-costs-after-scandal/398486/> (last visited Mar 22, 2018).

⁸⁰ Mike Pare & Andy Sher, GOV. HASLAM WORRIED ABOUT VW SCANDAL'S EFFECT ON SALES, JOBS AT CHATTANOOGA PLANT TIMESFREEPRESS.COM, <http://www.timesfreepress.com/news/business/aroundregion/story/2015/sep/29/vw-chattanooga-could-face-job-problems-haslam-s/327668/> (last visited Mar 22, 2018)

⁸¹ Neal E. Boudette, VOLKSWAGEN SALES IN U.S. REBOUND AFTER DIESEL SCANDAL THE NEW YORK TIMES (2017), <https://www.nytimes.com/2017/11/01/business/volkswagen-sales-diesel.html> (last visited Mar 10, 2018).

⁸² *Id.*

⁸³ *Id.*

⁸⁴ *Id.*

Despite the looming criminal charges against Volkswagen, throughout the entire situation management showed unwavering support for operations in their Chattanooga plant. Originally, the Volkswagen plant in Chattanooga was only producing the one car model, the Passat. In 2014, Volkswagen announced that it would be providing an additional \$900 million investment in the Chattanooga plant in Tennessee.⁸⁵ The reasoning for this increased investment is that Volkswagen wanted to expand their product line in the Tennessee plant and start producing a midsize SUV, a market segment that Volkswagen was not competing in.⁸⁶ Granted, this announcement was before the emissions scandal broke, but since it happened one would expect that there would be some sort of repercussions for Volkswagen based on the amount of fines and the possibility of further litigation. \$900 million is an absolutely enormous investment. Notably, when Volkswagen opened their New Stanton plant and invested \$300 million it was considered the largest foreign direct investment into the United States at the time.⁸⁷ If Volkswagen is investing three times that amount, it should be expected that the company would at least put their plans on pause until more information was available.

Yet, this was not the case for Volkswagen following the exposure of their fraud by the EPA. By only January 2016, less than a year after the emissions scandal broke, Volkswagen doubled down on their promises to expand the Chattanooga plant.⁸⁸ Not only were they planning on continuing the investment, they were already making efforts to put their investment to work. In that same month, Volkswagen was already in the process of hiring new employees to work on the

⁸⁵ Ben Klayman & Andreas Cremer, VW TO SPEND \$900 MILLION AT TENNESSEE PLANT TO BUILD NEW SUV REUTERS (2014), <https://www.reuters.com/article/us-vw-suv-usa/vw-to-spend-900-million-at-tennessee-plant-to-build-new-suv-idUSKBN0FJ11R20140714> (last visited Mar 22, 2018).

⁸⁶ *Id.*

⁸⁷ David Aviel, *Volkswagen's Investment in the United States: A Pacesetter for Foreign Investment*, (1980).

⁸⁸ Mike Pare, VW MOVING AHEAD WITH CHATTANOOGA PLANT EXPANSION, SUV, JOBS TIMESFREEPRESS.COM, <http://www.timesfreepress.com/news/business/aroundregion/story/2016/jan/11/vw-committed-chattanooga-plant-expansion-suv-officials-say/344048/> (last visited Mar 22, 2018).

new SUV assembly. “We stand firmly behind our Chattanooga plant”, Herbert Diess, head of the Volkswagen worldwide brand, announced in Detroit at the North American International Auto Show.⁸⁹ Clearly, Volkswagen was not deterred by the scandal in terms of their Chattanooga plant.

These results are contrary to my initial hypothesis that criminal prosecutions would have an impact on foreign direct investment. Volkswagen pledged to make an investment into the United States and even through criminal prosecutions, the company maintained its promise to expand the Chattanooga plant. But that might not mean that the hypothesis itself is completely inaccurate. Volkswagen announced this investment in 2014, which was before the emissions scandal broke in the news and criminal prosecutions were sent out. It could be likely that since the plans were in motion before the scandal broke that Volkswagen was simply too far down the rabbit hole to back out of the original investment they had promised. There are many contracts and agreements that come along with such an enormous project and many players involved, such as the federal government, state and local governments, the company the employees, and a variety of other stakeholders. With all of these factors, it could be possible that Volkswagen was unable to put the toothpaste back into the tube and had no choice but to keep pushing forward with their investment. For the hypothesis that criminal prosecutions can negatively impact foreign direct investment to hold, there would need to be a noticeable effect on Volkswagen’s investments from 2015 forward.

⁸⁹ Mike Pare, VW MOVING AHEAD WITH CHATTANOOGA PLANT EXPANSION, SUV, JOBS TIMESFREEPRESS.COM, <http://www.timesfreepress.com/news/business/aroundregion/story/2016/jan/11/vw-committed-chattanooga-plant-expansion-suv-officials-say/344048/> (last visited Mar 22, 2018).

VOLKSWAGEN’S FUTURE FOREIGN DIRECT INVESTMENT IN U.S.

Volkswagen’s current plant in Chattanooga has been doing well for both the community by creating jobs, as well as Volkswagen.⁹⁰ But this investment started taking shape before the emissions scandal broke. What are Volkswagen’s plans for future investment into the United States? Did the aggressive prosecution of their executives and the heavy fines discourage Volkswagen from further investment? Since Volkswagen has only opened two plants in the United States in the company’s history, it would be a safe bet that Volkswagen would take time to formulate an investment strategy and hold off on making any new announcements, especially since the Chattanooga plant just received an enormous expansion package just four years ago in 2014. However, upon further examination, this does not seem to be the case for Volkswagen as they continue to expand into the United States market.

A huge point of reference for analyzing Volkswagen’s future investment practices in the United States come from their own website, where they have outlined their future program called “TOGETHER – Strategy 2025”.⁹¹ Announced in June 2016 by the Volkswagen Group’s Board of Management, it is a transformative strategic plan for the company that covers just about every facet of the multinational firm.⁹² Unsurprisingly, one of the core target areas that Volkswagen wants to focus on through 2025 is their role for the environment, safety, and integrity.⁹³ In this

⁹⁰ Chattanooga Facts, VOLKSWAGEN GROUP OF AMERICA, <http://www.volkswagengroupofamerica.com/chattanooga-facts> (last visited Mar 22, 2018).

⁹¹ Volkswagen Konzern - AR 2016 - Goals and Key Performance Indicators, GOALS AND KEY PERFORMANCE INDICATORS - VOLKSWAGEN GROUP ANNUAL REPORT 2016, <http://annualreport2016.volkswagenag.com/group-management-report/goals-and-strategies/goals-and-key-performance-indicators.html> (last visited Mar 23, 2018).

⁹² *Id.*

⁹³ *Id.*

report, they reference the emissions scandal indirectly a few times. An important excerpt from this section of the strategic plan reads as such:

We want to regain and strengthen the trust of our customers and restore the Group's positive public image. The most important principles in this process include compliance with laws and regulations, the establishment of secure processes, and dealing openly with mistakes so that they can be avoided or rectified in the future. In terms of integrity, Volkswagen aims to become a role model for a modern, transparent and successful enterprise.⁹⁴

This excerpt from Volkswagen's new strategic plan shows that the Volkswagen scandal had an enormous impact on the direction Volkswagen plans to take heading into the future. A combination of public pressure and prosecution from the EPA and the Department of Justice led Volkswagen to make a part of their core competencies transparency and compliance, two of the most important traits a company needs to have when in cooperation with the Environmental Protection Agency. This shows a shifting focus in terms of agenda setting for Volkswagen, but what does this mean for investments?

Volkswagen in recent months has released statements covered by a variety of business sites and news outlets that they plan to continue this path of expansion into the United States.⁹⁵ In January of 2018, Volkswagen announced that it would be investing \$3.3 billion dollars into North America with about \$1.2 billion into the United States, with the main focus of the investment being to gain serious market share in the United States.⁹⁶ The emissions scandal had a serious impact on the public, and Volkswagen is using this as an opportunity to rebrand

⁹⁴ Volkswagen Konzern - AR 2016 - Goals and Key Performance Indicators, GOALS AND KEY PERFORMANCE INDICATORS - VOLKSWAGEN GROUP ANNUAL REPORT 2016, <http://annualreport2016.volkswagenag.com/group-management-report/goals-and-strategies/goals-and-key-performance-indicators.html> (last visited Mar 23, 2018).

⁹⁵ Elisabeth Behrmann, VW BRAND TO INVEST \$3.3 BILLION IN QUEST FOR U.S. RELEVANCE BLOOMBERG.COM (2018), <https://www.bloomberg.com/news/articles/2018-01-15/vw-brand-to-invest-3-3-billion-in-quest-for-u-s-relevance> (last visited Mar 23, 2018).

⁹⁶ *Id.*

themselves in the region⁹⁷. Hinrich Woebcken, CEO of Volkswagen's North America operations, explained the entire strategy in one sentence: "We want to gain market share and grow from a niche player to a truly relevant brand in the United States."⁹⁸ As of now, Volkswagen has a lot of work to do in this area. As of August 31, 2017, Volkswagen's market share in the United States was sitting at 1.9%, and their target market share is 5.0% by 2020.⁹⁹ This is an enormous level of growth, and Volkswagen believes that a big driver of this growth will be the new SUV being produced at their Tennessee plant that was part of the huge investment in the plant announced right before the scandal. Production for this new SUV, the Atlas, began in late 2016, and since they have started rolling them out the production capacity increased by almost 70%.¹⁰⁰ Volkswagen had never sold an SUV in the United States market before, and was a critical model in their lineup of vehicles that they felt they needed to offer to compete in the United States.

Not only does Volkswagen's expansion plan for market share include expanding their lineup and selling the Atlas, but they plan on taking a big shift into the electric vehicle market.¹⁰¹ The emissions scandal revolved around diesel-powered vehicles, which tend to be much more popular in European markets than in the United States, where gasoline vehicles dominate the road. Recently, however, trends have been shifting globally towards electric vehicles, including the United States. A report from The International Council on Clean Transportation from 2012,

⁹⁷ Reuters Staff, VW TO SPEND MORE THAN \$3.3 BILLION THROUGH 2020 ON U.S. MODEL... REUTERS (2018), <https://www.reuters.com/article/us-autoshow-detroit-volkswagen-usa/vw-to-spend-more-than-3-3-billion-through-2020-on-u-s-model-expansion-idUSKBN1F403Z> (last visited Mar 23, 2018).

⁹⁸ *Id.*

⁹⁹ Chester Dawson, VOLKSWAGEN AIMS TO MORE THAN DOUBLE U.S. MARKET SHARE WITH PUSH INTO SUVs THE WALL STREET JOURNAL (2017), <https://www.wsj.com/articles/volkswagen-aims-to-more-than-double-u-s-market-share-with-push-into-suvs-1504228709> (last visited Mar 23, 2018).

¹⁰⁰ *Id.*

¹⁰¹ THE VOLKSWAGEN GROUP LAUNCHES THE MOST COMPREHENSIVE ELECTRIFICATION INITIATIVE IN THE AUTOMOTIVE INDUSTRY WITH "ROADMAP E" (2017), https://www.volkswagenag.com/en/news/2017/09/Roadmap_E.html# (last visited Mar 23, 2018).

published by the EPA, showed that the highest projection of electric vehicles in the U.S. would be about 107,000 vehicles by 2020, or about 1% of the light duty vehicles market in the United States.¹⁰² Considering Volkswagen's entire market share is only 1.9% in the U.S., this is an important market to capture since it will only be growing as trends keep going in that direction.

Volkswagen plans to enter this new market by announcing a new initiative called "Roadmap E", with the main goal being to electrify its entire model portfolio by 2030 at the latest.¹⁰³ This is also outlined in the "TOGETHER – Strategy 2025" plan, but this information was also posted separately in a news statement. Not only is this a goal Volkswagen mentioned, but they also present action items for how to achieve this. They plan on increasing investments in China, Europe, and North America through long-term strategic partnerships to increase e-mobility, or electronic mobility.¹⁰⁴ The goal is to invest €20 billion euros in foreign direct investment projects including upgrading plants and training their workforce, electric charging infrastructure, trading and sales, and battery technology and production by 2025.¹⁰⁵ Although the €20 billion is split between the three regions, certainly the United States will be receiving a large foreign direct investment from Volkswagen in the future to develop electric vehicle technology. This lofty goal is yet another example of future investments made by Volkswagen into the United States.

Returning back to the "TOGETHER – Strategy 2025" plan, Volkswagen has outlined some potential risks that come along with these investments, including the fallout from the diesel

¹⁰² Drew Kodjak, CONSUMER ACCEPTANCE OF ELECTRIC VEHICLES IN THE US (2012).

¹⁰³ THE VOLKSWAGEN GROUP LAUNCHES THE MOST COMPREHENSIVE ELECTRIFICATION INITIATIVE IN THE AUTOMOTIVE INDUSTRY WITH "ROADMAP E" (2017), https://www.volkswagenag.com/en/news/2017/09/Roadmap_E.html# (last visited Mar 23, 2018).

¹⁰⁴ *Id.*

¹⁰⁵ *Id.*

emissions scandal. Volkswagen uses the “Risks and Opportunities” section of the report to outline some of the potential risks Volkswagen might face as a result of the emissions scandal. Some of the risks they mention include financial liabilities from the legal actions, a decrease in demand, and refinancing issues.¹⁰⁶ However, Volkswagen believes that they can mitigate these risks with their investments. All of these investments and expansions will allow the company to “better serve the market in the future” and that their success depends on “how transparently, thoroughly, and quickly we deal with the diesel issue and restore customer confidence”.¹⁰⁷ Based on the language used in the strategic plan along with the extensive plans for future investment, it seems that Volkswagen has no doubts it will survive the diesel scandal as a company and the criminal prosecutions will not hinder its investments.

ANALYSIS & IMPLICATIONS

The Volkswagen emissions scandal created chaos in the market and the automobile industry and was one of the biggest prosecution cases of corporate fraud in the 21st century. As mentioned above, the Obama administration was not going to let this issue slide and aggressively pursued criminal charges against both the company as well as its executives. The case continues, but as of now one executive has been arrested and Volkswagen has pled guilty to three felony counts in federal court. Throughout extensive legal proceedings, Volkswagen was unable to settle out of court and executives in Germany are still under the microscope of the Department of Justice.

¹⁰⁶ Volkswagen Konzern - AR 2016 - Risks and opportunities, VOLKSWAGEN GROUP ANNUAL REPORT 2016, <http://annualreport2016.volkswagenag.com/group-management-report/report-on-risks-and-opportunities/risks-and-opportunities.html> (last visited Mar 23, 2018).

¹⁰⁷ *Id.*

After examining Volkswagen's patterns of foreign direct investment in the United States using the natural experiment, it seems that the impact of criminal prosecution has a minimal impact on patterns of foreign direct investment. In the control group, the New Stanton plant, where criminal prosecutions were not brought against Volkswagen for fraud using defeat devices, the case between Volkswagen and the EPA was settled out of court and had no impact on Volkswagen's level of foreign direct investment. Volkswagen ended up closing the New Stanton plant a few years later, but the causes were unrelated to anything involving the defeat device settlement.

Compare that first investment to the experimental group, the Chattanooga plant, opened in 2011 shortly before the scandal and still open today, as the criminal prosecutions have continued to impact Volkswagen. This is the only foreign direct investment Volkswagen has in terms of production in the United States currently, and it seems that the impact on the Tennessee plant still remains to be seen. One would expect the plant to take a hit at least in terms of production capacity, since the only vehicle the Chattanooga plant produced at the time was the 2012 Passat, one of the models equipped with the illegal defeat devices, and I hypothesized that the plant would slow down production, cut jobs, or make some effort to retract some of their investments. Not only was the Tennessee plant unaffected, but the investment promises made by Volkswagen before the scandal broke continued unabated. Volkswagen continued their expansion into the Tennessee plant, added thousands of new jobs, introduced a new model to the plant's production, and put a lot of money into the plant. But, this could be deceiving since the investment was put into place before the scandal took place and the investment may have been set in motion before the scandal erupted.

So, to accentuate my study and make the results a little more clear, I examined Volkswagen's investments only from 2015 on, which means these investments had never seen the light of day, until criminal prosecutions were already brought against Volkswagen. Even looking at these investments and Volkswagen's strategic plan for 2025 and beyond, Volkswagen has ambitious plans for further investment into the United States. They have plans to invest even further into the Chattanooga plant, to increase production capacity for the Atlas as well as electric battery production facilities. Not only do they have plans to invest in production facilities, they also plan to invest money into infrastructure and worker training in the United States.

Based on all of this, ultimately, my hypothesis that criminal prosecutions against executives will have an impact on foreign direct investment is not supported by the evidence I collected, and indeed appears to be contravened. Since the New Stanton plant opened in the 1970s, Volkswagen has been on an upward trajectory of foreign direct investment into the United States. They opened a new plant in Tennessee much larger than the original plant that closed, and have further plans to continue their investment in the United States. If there was a causal relationship there, it would be expected to find any signal of decreased investment such as layoffs, decreased production capacity, or transfer of assets in the United States elsewhere.

Throughout my extensive research, I found no such signal and can conclude that Volkswagen will not allow the EPA's decision to pursue criminal charges against the company affect its foreign direct investment strategies. It seems that the two larger factors into Volkswagen's foreign direct investment strategy are labor laws and consumer trends in the U.S.

market.¹⁰⁸ This is not surprising and was touched upon in the earlier sections highlighting Volkswagen's investments. For example, a huge factor for Chattanooga landing the plant in its community is that Tennessee does not have auto worker's unions unlike states like Michigan where the auto workers union is enormous.¹⁰⁹ The United Automobile Workers, or UAW, made attempts to get labor unions into the plant but has been unable to reach an agreement with Volkswagen on that matter.¹¹⁰ Labor unions are costly for employers so it makes a lot of sense that Volkswagen would choose a state where unions did not exist. Consumer trends are important because as mentioned earlier, consumers in the U.S. market are shifting away from both diesel and gasoline powered vehicles and transitioning into the electric vehicle market.¹¹¹ If Volkswagen wants to gain more market share in the country, which it does, it needs to invest in these areas or fall behind. Both factors are strong influences on investment, and the relationship is clear to see. This makes me more confident in my conclusion that there is no relationship between criminal prosecutions and the level of foreign direct investment by Volkswagen.

In addition to testing my initial hypothesis, there are implications to this research from a legal standpoint for the Environmental Protection Agency and the Department of Justice. The original hypothesis that criminal prosecutions would cause a decrease in foreign direct investment is an important question, because foreign firms employ more American workers than foreign workers within the United States and decreasing investments would cause the economy to stagnate. Since this study suggests that there is little to no impact on foreign direct investment

¹⁰⁸ Ben Klayman & Andreas Cremer, VW TO SPEND \$900 MILLION AT TENNESSEE PLANT TO BUILD NEW SUV REUTERS (2014), <https://www.reuters.com/article/us-vw-suv-usa/vw-to-spend-900-million-at-tennessee-plant-to-build-new-suv-idUSKBN0FJ1IR20140714> (last visited Mar 22, 2018).

¹⁰⁹ Ben Klayman & Andreas Cremer, VW TO SPEND \$900 MILLION AT TENNESSEE PLANT TO BUILD NEW SUV REUTERS (2014), <https://www.reuters.com/article/us-vw-suv-usa/vw-to-spend-900-million-at-tennessee-plant-to-build-new-suv-idUSKBN0FJ1IR20140714> (last visited Mar 22, 2018).

¹¹⁰ *Id.*

¹¹¹ Drew Kodjak, CONSUMER ACCEPTANCE OF ELECTRIC VEHICLES IN THE US (2012).

whether cases are settled out of court or pursued as criminal cases, that should be a strong signal to the EPA that pursuing criminal cases is a perfectly reasonable method of approach to handling corporations who violate their laws or regulations. In fact, it should be encouraged! Criminal prosecutions of corporations are good for the EPA and the country in a couple different ways.

First, pushing criminal prosecutions against corporations is a great way to give the government a “win” and improve public relations. As mentioned in the section about foreign direct investment before the scandal, the Obama administration received a lot of backlash and criticism for not pushing criminal charges during the financial crisis of 2008.¹¹² Since losing investments is not an issue in this case, there is no foreseeable reason to prosecute corporate fraud cases as criminal cases if the evidence is there. Corporations are often vilified in the media,¹¹³ and in our representative democracy the government is expected to protect the people’s best interests. If a corporation is committing crimes and the government prosecutes those responsible, the people will perceive the government as protecting them and will be satisfied with the governmental response. This can lead to increased approval ratings for government officials, decreased political unrest, and accelerate the push towards corporate social responsibility.

Second, and more importantly, pursuing criminal cases against firms such as Volkswagen sends a signal to firms globally that environmental regulations put in place by the EPA are to be taken seriously. Pursuing criminal charges against Volkswagen may not have impacted their level of foreign direct investment, but it did impact their types of investment as well as shifted

¹¹² Glenn Greenwald, THE UNTOUCHABLES: HOW THE OBAMA ADMINISTRATION PROTECTED WALL STREET FROM PROSECUTIONS | GLENN GREENWALD THE GUARDIAN (2013), <https://www.theguardian.com/commentisfree/2013/jan/23/untouchables-wall-street-prosecutions-obama> (last visited Mar 10, 2018).

¹¹³ *Id.*

their strategic plan to a plan that is more environmentally conscious. Volkswagen's plans for future investment in the United States include an enormous shift in focus on battery production and electric vehicles. Granted, this is mostly due to Volkswagen responding to consumer trends and a preference for electric vehicles to improve sales and increase their market share. However, EPA environmental regulations and consumer trends come from the same base value: People in the United States care about the environment. They value goods that allow them to reduce their carbon footprint and make their lives more environmentally friendly. One rarely hears citizens complaining about environmental regulations because the population supports efforts to protect the environment. Not only did Volkswagen begin a transition into electric cars, but they also included a focus on environmental responsibility and sustainability as one of their four key performance indicators in their 2025 strategic plan. Playing devil's advocate again with Volkswagen's electric vehicle production, it is likely that Volkswagen is only concerned about this because of the bad public relations they received from it and want to improve their image to the public. But, the reasoning for it does not change the fact that Volkswagen is now focusing on environmental sustainability when it was not doing so previously. Criminal prosecutions against Volkswagen forced them to become a more sustainable company and reduce their carbon footprint. In this way, criminal prosecutions have made Volkswagen a more ethical company and lessened future environmental pollution.

FURTHER RESEARCH

While doing my preliminary research for this thesis, I was unable to find any sort of literature that covered the effects of criminal versus civil prosecution by the Environmental Protection Agency and its impacts on foreign direct investment. Since there was not much material

for an extensive literature review, a goal of this thesis is to speak this question into existence and formally examine this topic in academic research. This will give future academics or lawyers the opportunity to flesh the question out further and see where a relationship *can* be found, rather than showing that no such relationship exists. In my opinion, there are two different ways that further research can be taken: Focusing on which ways the EPA might impact foreign direct investment besides criminal prosecution, and the effects of political pressure on prosecution decisions for the EPA.

While doing this research, one of the most intriguing issues that I think deserves further examination is based on the opening of the New Stanton plant in Pennsylvania. During the negotiations to determine where to put the plant and how it should operate, the EPA and Volkswagen clashed over hydrocarbon pollution in the plant and because of this almost did not allow the plant to open. Eventually, an agreement was reached thanks to what the EPA calls their “bubble” policy, wherein a singular plant can be allowed to still operate over the legal limit for certain environmental regulations as long as they were compensating by being below the legal limit in other pollutant regulating areas. I thought this was an interesting approach to encouraging foreign direct investment and would like to know more about how much of an effect this policy had in encouraging foreign direct investment. It worked for Volkswagen and allowed them to build a \$300 million plant they otherwise might not have built, so I would expect there to be a positive effect on foreign direct investment for companies that took advantage of this policy.

Another potential area of further research that I uncovered during this thesis is the effect of political pressure on prosecution decisions by the EPA. The EPA administrator is part of the executive branch, and rather than being elected, is appointed by the incoming President. As such, it would be expected that the head of the administration is loyal to the President and will often

follow suggestions or direction from whichever administration in power. I believe that there is a strong relationship here specifically in the EPA and could be examined further. For example, when Volkswagen committed fraud by using defeat devices in the 1970s, it was settled in civil court and more or less forgotten about. On the other hand, when Volkswagen committed almost the exact same crime in 2015, they were prosecuted in criminal court and had the book thrown at both the company as well as its executives. Since these are the same case, I believe a cause for the different approaches is the political pressure exerted on the Obama administration to push for criminal charges. An interesting development of this thesis would be a focus on the political pressure faced by an administration and whether the EPA chooses to prosecute in civil or criminal court. Political pressure could be measured in terms of approval ratings for the President, approval ratings for Congress, and/or public opinion on environmental issues at the time of each case.

Ultimately, this thesis has brought attention to a new relationship that has not been discussed in academic literature before, and although the hypothesis was proved to be null, there is still plenty to learn in this research and the natural experiment conducted. There are implications for the EPA and the United States government as a whole, for companies formulating investment strategies into the United States market, and legal scholars interested in the effects of prosecutions on the economy. This thesis lays a different foundation of research on EPA prosecution against companies, and provides plenty of opportunity to further examine a variety of topics in the legal environment of business.

BIBLIOGRAPHY

THE VOLKSWAGEN GROUP LAUNCHES THE MOST COMPREHENSIVE ELECTRIFICATION INITIATIVE IN THE AUTOMOTIVE INDUSTRY WITH "ROADMAP E" (2017), https://www.volkswagenag.com/en/news/2017/09/Roadmap_E.html# (last visited Mar 23, 2018).

5 U.S.C. §551 et seq. (1946)

40 CFR 86.1803-01 - Definitions., LII / LEGAL INFORMATION INSTITUTE, <https://www.law.cornell.edu/cfr/text/40/86.1803-01> (last visited Jan 13, 2018).

42 U.S.C §7522 (2013),, <https://www.gpo.gov/fdsys/pkg/USCODE-2013-title42/html/USCODE-2013-title42-chap85-subchapII-partA-sec7522.htm> (last visited Jan 13, 2018).

David Aviel, *Volkswagen's Investment in the United States: A Pacesetter for Foreign Investment*, (1980).

Jeff S. Bartlett , Michelle Naranjo & Jeff Plungis, GUIDE TO THE VOLKSWAGEN EMISSIONS RECALL CONSUMER REPORTS, <https://www.consumerreports.org/cro/cars/guide-to-the-volkswagen-dieseldgate-emissions-recall-> (last visited Jan 22, 2018).

Elisabeth Behrmann, VW BRAND TO INVEST \$3.3 BILLION IN QUEST FOR U.S. RELEVANCE BLOOMBERG.COM (2018), <https://www.bloomberg.com/news/articles/2018-01-15/vw-brand-to-invest-3-3-billion-in-quest-for-u-s-relevance> (last visited Mar 23, 2018).

Neal E. Boudette, VOLKSWAGEN SALES IN U.S. REBOUND AFTER DIESEL SCANDAL THE NEW YORK TIMES (2017), <https://www.nytimes.com/2017/11/01/business/volkswagen-sales-diesel.html> (last visited Mar 22, 2018).

"Bubble" Policy Added to EPA's Cleanup Strategy, EPA (1979),
<https://archive.epa.gov/epa/aboutepa/bubble-policy-added-epas-cleanup-strategy.html>
(last visited Mar 14, 2018).

Business Week, *Pollution may kill VW's Rabbit plant*, 26 (1977).

Chattanooga Facts, VOLKSWAGEN GROUP OF AMERICA,
<http://www.volkswagengroupofamerica.com/chattanooga-facts> (last visited Mar 22,
2018).

William D. Cohan, HOW WALL STREET'S BANKERS STAYED OUT OF JAIL THE ATLANTIC (2015),
<https://www.theatlantic.com/magazine/archive/2015/09/how-wall-streets-bankers-stayed-out-of-jail/399368/> (last visited Mar 10, 2018).

Criminal Enforcement: Special Agents, EPA (2016),
<https://www.epa.gov/enforcement/criminal-enforcement-special-agents>.

Chester Dawson, VOLKSWAGEN AIMS TO MORE THAN DOUBLE U.S. MARKET SHARE WITH PUSH INTO SUVs THE WALL STREET JOURNAL (2017), <https://www.wsj.com/articles/volkswagen-aims-to-more-than-double-u-s-market-share-with-push-into-suvs-1504228709> (last visited Mar 23, 2018).

Lisa Demer, PLATINUM MINE CRIMINAL CHARGES A FIRST FOR ALASKA ANCHORAGE DAILY NEWS (2014),
<https://www.adn.com/environment/article/platinum-mine-criminal-charges-first-alaska/2014/11/20/> (last visited Mar 26, 2018).

Paul A. Eisenstein, VW IS BACK IN THE USA AND AIMING HIGH WITH NEW PLANT NBCNEWS.COM (2011),
<http://www.nbcnews.com/id/43159310/ns/business-autos/t/vw-back-usa-aiming-high-new-plant/#.WsRPzExFz5c> (last visited Apr 4, 2018).

Enforcement Basic Information, EPA (2018),

<https://www.epa.gov/enforcement/enforcement-basic-information> (last visited Apr 2, 2018).

EPA History, EPA (2018), <https://www.epa.gov/history> (last visited Apr 4, 2018).

Megan Geuss, VOLKSWAGEN'S EMISSIONS CHEATING SCANDAL HAD A LONG, COMPLICATED HISTORY ARS TECHNICA (2017), <https://arstechnica.com/cars/2017/09/volkswagens-emissions-cheating-scandal-has-a-long-complicated-history/> (last visited Mar 14, 2018).

Sonari Glinton, HOW A LITTLE LAB IN WEST VIRGINIA CAUGHT VOLKSWAGEN'S BIG CHEAT NPR (2015), <https://www.npr.org/2015/09/24/443053672/how-a-little-lab-in-west-virginia-caught-volkswagens-big-cheat> (last visited Jan 13, 2018).

Glenn Greenwald, THE UNTOUCHABLES: HOW THE OBAMA ADMINISTRATION PROTECTED WALL STREET FROM PROSECUTIONS | GLENN GREENWALD THE GUARDIAN (2013), <https://www.theguardian.com/commentisfree/2013/jan/23/untouchables-wall-street-prosecutions-obama> (last visited Mar 10, 2018).

Russell Hotten, VOLKSWAGEN: THE SCANDAL EXPLAINED BBC NEWS (2015), <http://www.bbc.com/news/business-34324772> (last visited Jan 13, 2018).

Ben Klayman & Andreas Cremer, VW TO SPEND \$900 MILLION AT TENNESSEE PLANT TO BUILD NEW SUV REUTERS (2014), <https://www.reuters.com/article/us-vw-suv-usa/vw-to-spend-900-million-at-tennessee-plant-to-build-new-suv-idUSKBN0FJ1IR20140714> (last visited Mar 22, 2018).

Drew Kodjak, CONSUMER ACCEPTANCE OF ELECTRIC VEHICLES IN THE US (2012).

Laws and Regulations related to Volkswagen Violations, (2016), <https://www.epa.gov/vw/laws-and-regulations-related-volkswagen-violations> (last visited Jan 13, 2018).

Robinson Meyer, HOW THE U.S. PROTECTS THE ENVIRONMENT, FROM NIXON TO TRUMP THE ATLANTIC (2017), <https://www.theatlantic.com/science/archive/2017/03/how-the-epa-and-us-environmental-law-works-a-civics-guide-pruitt-trump/521001/> (last visited Jan 13, 2018).

Mine operator sentenced for polluting Alaska River, THE UNITED STATES DEPARTMENT OF JUSTICE (2016), <https://www.justice.gov/usao-ak/pr/mine-operator-sentenced-polluting-alaska-river> (last visited Feb 26, 2018).

Mike Pare & Andy Sher, GOV. HASLAM WORRIED ABOUT VW SCANDAL'S EFFECT ON SALES, JOBS AT CHATTANOOGA PLANT TIMESFREEPRESS.COM, <http://www.timesfreepress.com/news/business/aroundregion/story/2015/sep/29/vw-chattanoogcould-face-job-problems-haslam-s/327668/> (last visited Mar 22, 2018).

Mike Pare, VW MOVING AHEAD WITH CHATTANOOGA PLANT EXPANSION, SUV, JOBS TIMESFREEPRESS.COM, <http://www.timesfreepress.com/news/business/aroundregion/story/2016/jan/11/vw-committed-chattanooga-plant-expansion-suv-officials-say/344048/> (last visited Mar 22, 2018).

Associated Press, NO REGRETS IN PENNSYLVANIA OVER VW DEAL : OFFICIALS SANGUINE AFTER CAR MAKER JILTED PLANT LOS ANGELES TIMES (1987), http://articles.latimes.com/1987-12-02/business/fi-17231_1_low-interest-loan (last visited Mar 14, 2018).

PROGRESS IN THE PREVENTION & CONTROL OF AIR POLLUTION IN 1973, PROGRESS IN THE PREVENTION & CONTROL OF AIR POLLUTION IN 1973 35 (1974).

Reuters, VOLKSWAGEN PLEADS GUILTY TO 3 FELONY COUNTS IN DIESEL EMISSIONS SCANDAL FORTUNE, <http://fortune.com/2017/03/10/vw-emissions-scandal-guilty/> (last visited Feb 11, 2018).

Reuters Staff, VW TO SPEND MORE THAN \$3.3 BILLION THROUGH 2020 ON U.S. MODEL... REUTERS (2018), <https://www.reuters.com/article/us-autoshow-detroit-volkswagen-usa/vw-to-spend->

more-than-3-3-billion-through-2020-on-u-s-model-expansion-idUSKBN1F403Z (last visited Mar 23, 2018).

Summary of Criminal Prosecutions, EPA,

https://cfpub.epa.gov/compliance/criminal_prosecution/index.cfm?action=3&prosecution_summary_id=2868 (last visited Jan 22, 2018).

Summary of the Clean Water Act, EPA (2018), <https://www.epa.gov/laws-regulations/summary-clean-water-act> (last visited Apr 2, 2018).

Hiroko Tabuchi, Jack Ewing & Matt Apuzzo, 6 VOLKSWAGEN EXECUTIVES CHARGED AS COMPANY PLEADS GUILTY IN EMISSIONS CASE THE NEW YORK TIMES (2017),

<https://www.nytimes.com/2017/01/11/business/volkswagen-diesel-vw-settlement-charges-criminal.html> (last visited Feb 6, 2018).

The Basics of the Regulatory Process, EPA (2017), <https://www.epa.gov/laws-regulations/basics-regulatory-process#regulation> (last visited Jan 17, 2018).

UPDATE: Volkswagen to shed 30,000 jobs; company says cuts will have 'no effect' in

Chattanooga, TIMESFREEPRESS.COM,

<http://www.timesfreepress.com/news/volkswagen/story/2016/nov/18/volkswagen-shed-30000-jobs-cutting-costs-after-scandal/398486/> (last visited Mar 22, 2018).

Volkswagen Konzern - AR 2016 - Goals and Key Performance Indicators, GOALS AND KEY PERFORMANCE INDICATORS - VOLKSWAGEN GROUP ANNUAL REPORT 2016,

<http://annualreport2016.volkswagenag.com/group-management-report/goals-and-strategies/goals-and-key-performance-indicators.html> (last visited Mar 23, 2018).

Volkswagen Konzern - AR 2016 - Risks and opportunities, VOLKSWAGEN GROUP ANNUAL REPORT

2016, <http://annualreport2016.volkswagenag.com/group-management-report/report-on-risks-and-opportunities/risks-and-opportunities.html> (last visited Mar 23, 2018).

Volkswagen's Tennessee Subsidy Deal: Are Taxpayers Being Taken for a Ride?, GOOD JOBS FIRST,
<https://www.goodjobsfirst.org/volkswagen%E2%80%99s-tennessee-subsidy-deal-are-taxpayers-being-taken-ride> (last visited Mar 22, 2018).

Academic Vita of Charles Lane Burrows

Charlieb727@gmail.com

EDUCATION

The Pennsylvania State University | Schreyer Honors College
Smeal College of Business | Bachelor of Science in Management
College of the Liberal Arts | Bachelor of Arts in Political Science

University Park, PA
Class of May 2018

PROFESSIONAL

Hazleton City Authority, Water Department

Hazleton, PA

Summer Intern

Summer 2015 & Summer 2017

- Executed water meter upgrade program, scheduling appointments to update 15,000 properties from a handheld, keyed meter to an infrared radio device
- Installed water meters for appointments I scheduled on both residential and commercial properties throughout Hazleton
- Saved more than \$100,000 over one summer for water department by identifying water line breaks and replacing lines

Bemis Company, Inc.

Hazleton, PA

Intern

May 2013 – June 2014

- Implemented a new biodegradable plastic bag into the Bemis product lineup
- Performed monthly materials test on bags and compiled data into a spreadsheet using Microsoft Excel
- Partnered with Grupo Bimbo, a company with a market cap of \$13.875 billion in 2013, using their distribution channels to ship these plastic bags to their packaging plants in Mexico

LEADERSHIP

Sapphire Leadership Academic Program

University Park, PA

Symposium Captain

Dec. 2015 – Dec. 2016

- Coordinated and managed Sapphire's annual event, the Leadership Symposium, managing a team of four other colleagues
- Established a clear timeline of the Symposium's goals, delegating tasks and responsibilities as needed to the rest of the team
- Planned and organized the 2016 Leadership Symposium by inviting speakers, planning event logistics and moderating events

Delta Kappa Epsilon, Phi Rho Chapter

State College, PA

THON Chair, Family Relations

2015 and 2017 Academic Years

- Provided financial and emotional support to the children, families and staff of the Four Diamonds Fund, which assists children diagnosed with pediatric cancer
- Led events to raise money for Penn State THON, the largest student run philanthropy in the world which raised \$9.8 million dollars in 2016
- Organized the logistics of these events, raising over \$40,000 for the Four Diamonds Fund through my fraternal partnership

VOLUNTEER

Hazleton Integration Project

Hazleton, PA

Volunteer

May 2015 – June 2015

- Volunteered at a local community center established by Joe Maddon, general manager for the Chicago Cubs, and his family
- Organized a free open gym 4 hours a day to allow children of all economic backgrounds to have safe access to a recreational facility
- Supervised 60-plus children ages 14-17 and promoted respect and friendship amongst children of all ethnicities and backgrounds

Global Business Brigades

Arimae, Panama

Ambassador

Spring Break 2015

- Helped establish a Caja Rural, or community bank, for the indigenous community of Arimae
- Created and presented financial literacy workshops to the bank members, explaining the concepts of savings, budgeting, etc.
- Offered business consulting to a kiosk in the community, helping the owner establish an inventory management system and explained how the community bank can offer small loans to help expand his business

9-8987-8514