

# *Pegasus*



A newsletter for the Caux Round Table Network  
looking at business above the clutter and confetti

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Moral Capitalism At Work

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# *Pegasus*

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# INTRODUCTION

This issue of *Pegasus* brings you two items, one very conceptual and the other very practical.

First, in my comment exploring how useful the concept of “merit goods” might be, I attempt to provide what one of our colleagues calls a “thought-form,” which can integrate pure economic theory, ideals of corporate social responsibility, with implications for how to optimize the differing, but mutually engaging civilizational contributions of government, business enterprise and civil society.

I suggest that the idea of merit goods (and its obverse “non-merit goods”), taken from a niche sub-field of public administration theory, can be expanded to embrace the economic variables of public goods and private goods. Public and private goods can be, from an ethical perspective, both good and bad. As citizens and more largely as human persons, we should, I presume, seek only the good outcomes provided by public and private goods and seek to prevent the production and distribution of bad public and private goods.

The enterprise of corporate social responsibility, then, can be chartered as seeking from private enterprise the optimum output of merit goods coupled with reduction of non-merit goods.

In this enterprise, government, business and civil society each can make separate and distinct contributions to the desired outcome. Government can contribute through the imposition of regulations and fiscal and monetary incentives and disincentives. Business can contribute by taking responsible care of stakeholder needs and interests – in market exchanges which finance the sustainable economic health of companies. Civil society can contribute by advocating standards of merit and non-merit to influence the decisions of government and business.

In this regard, I further suggest that the new U.N. Sustainable Development Goals are a wish list of significant merit goods needed by humanity.

Secondly, on a far less conceptual level, we include the legal complaint brought by the U.S. Department of Justice against Volkswagen and related companies for intentional misrepresentation of environmental impacts when selling diesel powered vehicles in the U.S. The take-away from this document is that unethical aspirations can be legal wrongs, as well. A lack of attention to responsibilities can lead to massive losses of owners’ equity for a company, a violation of the fiduciary duties of the company’s board of directors to protect above all else the interests of firm owners.

The complaint sets forth the material details of how Volkswagen violated American laws.

*Stephen B. Young*  
*Global Executive Director*  
*Caux Round Table*

# Merit Goods

**Stephen B. Young**

How do we assess capitalism?

By its results.

We can measure its outcomes either by strictly moral rules (the Ten Commandments, for example, or the requirements of Sharia injunctions), by its material advantages (utility for some or all), or by a blend of these standards of good and bad.

A system of collaborative human effort – like politics or religion – vests its value in the world of real people seeking to live according to the guidance of their heads and hearts, as influenced by their emotions, their fears and their needs.

Thus, to properly evaluate capitalism, we need standards which embrace its goods and services more than its ideals. Talk, after all, is cheap and ideals don't make themselves powers in our lives but do so only through the commitments and acts of their human agents.

One common critique of capitalism is that its dependency on free markets and personal choice leads to the production of goods and services which are not "wholesome" for the community.

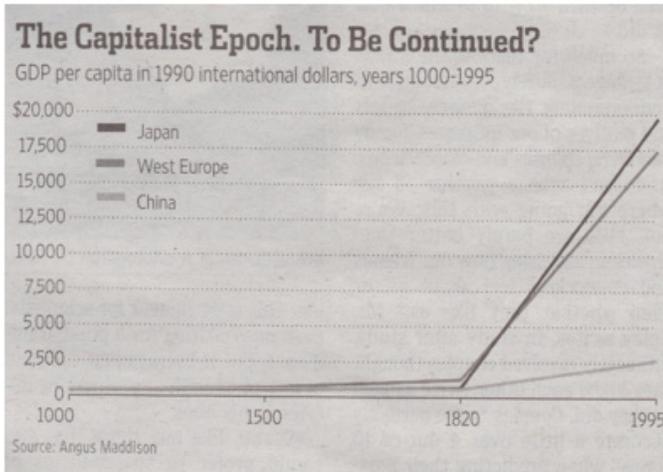
One set of objections to the results of capitalism rests on religious and moral strictures. The worth of the system is denigrated because it produces and delivers goods such as alcohol, guns, drugs, contraceptives and services such as prostitution and sex trafficking.

A different set of objections rests on standards of community disadvantage such as the tragedy of the commons. Capitalism is faulted for producing pollution, over-consumption of natural resources, destruction of habitats, green-house gases, harmful products, bad working conditions and squalid urban environments. Here we find the scandals of BP, GM and Volkswagen.

A third set of objections rests on a blend of moral indignation and concern for community living standards. Here Capitalism is principally faulted for delivering inequalities of income and wealth and corruption of public ethics. Here dissent looks to the negligence which caused the 2008 collapse of credit markets; the moving of manufacturing plants to low-wage environments; the seeking of market power through regulatory favoritism to avoid the discipline of consumers seeking lower prices; very

high executive compensation; the use of financial assets for high frequency trading of securities; and the actions by UBS to help wealthy Americans avoid paying taxes to their home government.

On the other hand, capitalism has a stunning record of improving humanity and making lives better on a scale of transcendent achievement. Consider the following graph on wealth creation:



This was principally the result of the industrial revolution driven by the capitalist mode of factory production, urbanization, distribution and practical application of new scientific knowledge. The spread of computers and mobile phones, like the diffusion of books starting with Guttenberg, was accomplished by the private sector using private entrepreneurship and the investment of private wealth. The same is true for every technology (electricity, toilets, knee and hip replacements) which supports modern life in comfort and opportunity for expression of our personal identities and achievement of our individual aspirations.

How, then, can we measure and balance the good and the bad of capitalism? More importantly, how can we be more focused in our means of encouraging more production of the good and less of what we don't like or want?

How can we have an easily understood and quantitatively accessible set of metrics for a moral capitalism?

I propose borrowing a concept from public administration used to evaluate the merits of public welfare expenditures and move it over to capitalism as a system for the production of goods and services for consumption.

The concept is that of "merit goods." Economists looking at public expenditures want to contain them to goods and services that have "merit" and not "demerit." Examples include the provision of food stamps to support nutrition, the delivery of health services to improve quality of life and reduce morbidity, subsidized housing and arguably education.

The concept was introduced by Harvard Professor Richard Musgrave. He was considering transfer payments under a public welfare program which had to be spent on what the community deemed to be meritorious, not on what the recipient might choose to spend the money.

A merit good has been defined as having two characteristics: 1) people do not realize the true benefit. For example, people underestimate the benefit of education or vaccinations; and 2) usually these goods have positive externalities. Therefore, in a free market, there will be under consumption of merit goods.

Examples of merit goods: healthcare – people underestimate the benefits of getting a vaccination. If people do get a vaccination, then there will be external benefits to the rest of society because it will help reduce disease in the rest of society; museums – the educational benefit of museums; education – people may undervalue benefits of studying.

Another approach to finding merit goods has been provided by Harvard Business School Professor Michael Porter in his 2011 article on "shared value". There Porter advocates the private firms can produce goods and services having value to private consumers as well as to society. Goods and services which possess that added value quality of promoting more public benefits at the same time as they enhance the well-being of private consumers in his eyes have superior merit to goods and services which are more restricted in the scope of

satisfaction they provide.

A demerit good has two characteristics: 1) a good which harms the consumer. For example, people don't realize or ignore the costs of doing something, e.g. smoking, drugs; and 2) usually these goods also have negative externalities. Therefore, in a free market, there will be over consumption of these goods.

Examples of demerit goods include: smoking; drinking; taking drugs. (<http://www.economicshelp.org/micro-economic-essays/marketfailure/merit-demerit-goods/>).

Sometimes, merit and demerit goods are simply seen as an extension of the idea of externalities. A merit good may be described as a good that has positive externalities associated with it. Thus, an inoculation against a contagious disease may be seen as a merit good. This is because others who may not now catch the disease from the inoculated person also benefit.

However, merit and demerit goods can be defined in a different way which makes it different from externalities. The essence of merit and demerit goods has to do with an information failure to the consumer. This arises because consumers do not perceive quite how good or bad the good is for them: either they do not have the right information or lack relevant information. With this definition, a merit good is defined as good that is better for a person than the person who may consume the good realizes. The welfare state use of merit goods supports recommending for or against some goods on a basis other than consumer choice. This use of the concept is undemocratic and inconsistent with the principles, perhaps, of a free market composed of willing buyers and sellers.

Wilfried Ver Eecke has defined categories of merit goods as defining and protecting property rights; institutions which promote economic efficiency; Keynesian programs to offset negative turns in the business cycle; education; social safety net; public health; prevention of corruption; economic development policies; protection of the environment; protection of cultural heritage; and business ethics.

(Ver Eecke, *Ethical Reflections on the Financial Crisis 2007/2008*, Springer 2013)

In another example of defining merit goods and services, the London-based NGO Ethical Corporation presents awards for responsible business practices. To reflect current industry trends, for the 2015 awards, the categories of desired responsible business practices were grouped into four main themes: business strategy, communications excellence, value chain sustainability and internal engagement.

In one award, the production of aluminum for automobiles was selected as a merit good. Aluminum supplier and recycler Novelis and the UK's largest automotive manufacturer, Jaguar Land Rover received the award because "using aluminum in cars creates a lightweight yet strong solution that enables vehicle mass and fuel consumption reductions and lower levels of carbon-rated taxation." Secondly, the companies provided a new merit service: a closed-loop process for using raw materials where aluminum is infinitely recyclable and so has the capacity to permit automobile parts to be fully the end of a vehicle's useful life.

The GoThinkBig initiative put in action by Telefónica UK (which trades as O2) and Bauer Media was selected for providing a merit service to young job seekers looking for employment. GoThinkBig is "an accessible platform that young job seekers can use to apply for work and skills experience without having to know someone who works within the company. Attracting around 60,000 unique users to the site each month, the initiative is on track to meet its commitment to offer more than 30,000 opportunities in the first three years."

Ethical Corporation's 2015 award for Best Supplier Engagement was given to healthcare company GSK for its Supplier Sustainability Program. Matt Wilson, GSK's head of environmental sustainability, explained: "We set up the supplier exchange platform to help us engage with our suppliers: to let them know about our supply chain sustainability strategy and initiatives and to encourage their

collaboration with both us and each other to find solutions to reduce the carbon footprint that sits in the raw materials part of our value chain.”

This expenditure by GSK was considered to be of substantial merit with respect to environmental sustainability as a public good.

PepsiCo’s Food for Good program, started in 2009, also received an award. Under this program, the for-profit company PepsiCo “develops creative solutions to make healthy food accessible to low income families” in the United States, where the outcome of getting healthy food to those with low incomes is considered a *prima facie* private good, with public good externalities attached. Here the for-profit, publicly owned company formed strategic partnerships with non-profit organizations and local governments and dedicated a full-time team to build meal programs and pop-up farm stands. Its farm stands create pop-up healthy food stores where fresh produce is delivered and sold in \$1 bundles. The farm stands also help break the cycle of poverty by employing members of the community.

Similarly, Old Mutual won an award for its On The Money program, which provides free, simple financial education for consumers across Africa. On The Money has directly impacted almost 400,000 individuals since implementation, with a further reach of 15 million people through radio and digital outreach efforts. Financial education is considered a merit service with positive impacts on the well-being of individuals and an increase in the public good of higher quality financial intermediation.

### **Merit Goods and Services as a Measure of the “Goodness” of Capitalism**

To assess the outcomes of capitalism, we would simply create a balance sheet: add up the merit goods and subtract the non-merit goods and arrive at a net figure. The higher the net balance, the more successful the capitalism.

Now a full range of consequences must be attached to each good or service to determine its weight as

a merit or a non-merit good. We must consider consequences for the individual consumer, as well as the more remote consequences for others in the use of that good or service.

In the tradition of moral reasoning, we can subject a good or service, which has no externalities but only consequences, for the individual consumer to judgment. We can stand in his or her shoes and evaluate the use. This invokes Adam Smith’s principle of sympathy or, if we look to a person’s self-interest, we would factor in self-interest considered upon the whole, not as a person with bias, prejudice, under the influence, with limited capacity, with “issues” might judge his or her own best advantage.

Thus, do the criminal law and the law of negligence operate to “socialize,” in retrospect, the thinking of free individuals? The criminal law holds that we might, for ourselves, consider a murder or theft in our self-interest or otherwise justifiable but that our judgment falls under community condemnation. The law of negligence similarly imposes an objective standard on our decision-making: if reasonable persons in our position would have acted differently to prevent harm from occurring, our decision to the contrary is held to be negligent and we at fault and liable in damages for the harm we have done to others.

In 1883 in Great Britain, Brett, Master of Rolls and later Lord Esher, gave a noted definition of our responsibilities to others: “*Whenever one person is by circumstances placed in such a position with regard to another that every one of ordinary sense who did think would at once recognize that if he did not use ordinary care and skill in his own conduct with regard to those circumstances he would cause danger of injury to the person or property of the other, a duty arises to use ordinary care and skill to avoid such danger.*” (*Heaven v. Pender*, 11 QBD 509)

Responsibility is another way of talking about “negative externalities.” Unfortunately, the law does not compensate us for engendering “positive” externalities and so, accordingly, neither does capitalism. You can’t sue me for paying for the good

you did me, putting a price on the public good aspect of some private act of yours that, intentionally or unintentionally, brought benefit my way.

Allocating merit or non-merit to goods and services has a constructive bearing on reducing moral hazards.

But if an individual stands ready to assume the full costs of the goods and services he or she offers or consumes, then such person has an argument that their definition of that good or service as meritorious or non-meritorious should be honored by the community.

### **U.N. Sustainable Development Goals (“SDGs”) and Merit Goods and Services**

The newly adopted U.N. SDGs set forth a worthy set of outcome for all countries. They not only provide priorities for governments, they implicitly set before us outcomes for global capitalism. Thus, every good or service which contributes to the achievement of the goals is meritorious on its face for making that contribution. And, to the contrary, every good or service which detracts from achievement of the SDGs is unmeritorious on its face.

If we, therefore, create a balance sheet for the SDGs with today’s merit goods and services on one side and the non-merit goods and services on the other, we can establish a baseline from which to measure progress. Production of more merit goods and services and reduction in the production of non-merit goods and services will be progress for humanity and for each community within our global family.

Once merit goods and services are properly named, incentives can be placed to encourage their production and disincentives alternatively placed to discourage the production of non-merit goods and services. Merit goods and services can be subsidized by governments and preferred by consumers. Non-merit goods and services can be taxed by governments and subjected to constraining regulation and can be spurned by consumers.

For success in implementation, it is important to note that merit goods and services are not the exclusive, proprietary object of public administration. The private sector can easily and more efficiently produce merit goods and services. Consider education and healthcare, two widely accepted forms of merit goods and services. They can be delivered by public authority and institutions, by private profit-making firms, or by non-profits and benefit corporations. Once a good or service is recognized as meritorious, arguments for quality, cost, efficiency and intensity of good customer care can take center stage in deciding how best to produce it.

In fact, the new legal form of benefit corporations are designed to provide for the production of merit goods and services and the reduction of non-merit goods and services through market undertakings.

Here is the list of the new SDGs, followed by suggestions for a few goods and services which would be meritorious for their capacity for moving us closer to achievement of that desired outcome:

#### **Goal 1. End poverty in all its forms everywhere.**

Job creation; improved schools; childhood nourishment; reduction of disease; access to markets

#### **Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture.**

Improved irrigation and access to water; improved seeds; extension services; safe storage; commodity prices; better tillage

#### **Goal 3. Ensure healthy lives and promote well-being for all at all ages.**

Access to clinics; access to drugs; education in sanitation and personal healthcare; exercise; proper diets; avoidance of high fructose corn syrup and less consumption of sugar; increased fiber in diet

**Goal 4. Ensure inclusive and equitable quality education and promote life-long learning opportunities for all.**

Use of internet and social media for IQ development; teacher training; opening adult learning centers

**Goal 5. Achieve gender equality and empower all women and girls.**

**Goal 6. Ensure availability and sustainable management of water and sanitation for all.**

Enhanced toilets; recycled waste water; selling water for a user charge; bio-degradable fertilizers and insecticides; enhances plant genetics; limiting agricultural run-off

**Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all.**

Batteries with enhanced storage capacity; more efficient motors; better insulated buildings; private household and business generation of electricity to feed into the grid; generating electricity from waves; carbon capture and recycling

**Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.**

Affordable and accessible credit for individuals and small enterprises; retirement savings funds; enhance human capital and IQ achievement; ethics teaching and training to promote more trust and reliance; exposing corruption and elite rent extraction; reduction of trading in financial intermediation

**Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.**

Higher government budgets; high spending on R&D; commercialization of new materials and technologies

**Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable.**

**Goal 12. Ensure sustainable consumption and production patterns.**

**Goal 13. Take urgent action to combat climate change and its impacts.**

**Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.**

Enhance legal education; reduce corruption; education for security forces in the principles and techniques of community policing; enhancing constitutional checks and balances; interfaith engagement on common core values; open access to the internet

Goods and services – both publicly and privately provided – which would delay, frustrate or otherwise compromise the achievement of the SDGs would be eschewed as non-merit goods and services.

# Legal Complaint against Volkswagen

## IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF MICHIGAN

_____	)	
UNITED STATES OF AMERICA,	)	
	)	
Plaintiff,	)	
	)	
v.	)	Civil Action No.
	)	
Volkswagen AG, Audi AG,	)	
Volkswagen Group of America, Inc.,	)	
Volkswagen Group of America	)	
Chattanooga Operations, LLC,	)	
Dr. Ing. H.c. F. Porsche AG, and	)	
Porsche Cars North America, Inc.,	)	
	)	
Defendants.	)	
_____	)	

### **COMPLAINT**

The United States of America, by authority of the Attorney General of the United States and at the request of the Administrator of the United States Environmental Protection Agency (“EPA”), files this complaint and alleges as follows:

#### **NATURE OF ACTION**

1. This is a civil action brought pursuant to Sections 204 and 205 of the Clean Air Act (“Act”), 42 U.S.C. §§ 7523 and 7524, for injunctive relief and the assessment of civil penalties against Volkswagen AG, Audi AG, Volkswagen Group of America, Inc. (“VWoA”), Volkswagen Group of America Chattanooga Operations, LLC (“VWoA Chattanooga”), Dr. Ing. h.c. F. Porsche AG (“Porsche AG”), and Porsche Cars North America, Inc. (collectively, “VW”) for violations of the Act and regulations promulgated thereunder.

#### **STATUTORY AND REGULATORY BACKGROUND**

2. This action arises under Title II of the Act, as amended, 42 U.S.C. § 7521 *et seq.*, and the regulations promulgated thereunder, which aim to protect human health and the environment by reducing emissions of nitrogen oxides (“NOx”) and other pollutants from mobile sources of air pollution, including new motor vehicles.

3. NO<sub>x</sub> is a family of highly reactive gases that play a major role in the atmospheric reactions with volatile organic compounds that produce ozone in the atmosphere. Breathing ozone can trigger a variety of health problems including chest pain, coughing, throat irritation, and congestion. Breathing ozone can also worsen bronchitis, emphysema, and asthma, and can lead to premature death. Children are at greatest risk of experiencing negative health impacts from exposure to ozone. Additionally, recent scientific studies indicate that the direct health effects of NO<sub>x</sub> are worse than previously understood, including respiratory problems, damage to lung tissue, and premature death.

#### **A. Certificates of Conformity and Prohibition on Uncertified Motor Vehicles**

1. Light-duty vehicles must satisfy emission standards for certain air pollutants. 40 C.F.R. §§ 86.1811-04, 86.1811-09, 86.1811-10. EPA administers a certification program to ensure that every new motor vehicle introduced into United States commerce satisfies applicable emission standards. 42 U.S.C. § 7521. Under this program, EPA issues COCs and thereby regulates the introduction of new motor vehicles into United States commerce.
2. To obtain a COC, a manufacturer must submit an application to EPA for each model year and for each test group of vehicles that it intends to enter into United States commerce. 40 C.F.R. § 86.1843-01. A test group is comprised of vehicles with similar emissions profiles for pollutants regulated under the Act.
3. Vehicles are covered by a COC only if the vehicles are as described in the manufacturer's application for the COC "in all material respects." 40 C.F.R. § 86.1848-10(c)(6).
4. EPA issues COCs "upon such terms . . . as [the Administrator] may prescribe."
5. Section 203(a)(1) of the Act, prohibits manufacturers of new motor vehicles from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or any person from importing into the United States any new motor vehicle not covered by a COC issued by EPA under regulations prescribed by the Act governing vehicle emission standards. It is also a violation to cause any of the foregoing acts.

#### **B. Prohibition on Defeat Devices and Tampering**

6. Each COC application must include, among other things, a list of all auxiliary emission control devices ("AECDs") installed on the vehicles.
7. An AECD is "any element of design which senses temperature, vehicle speed, engine [revolutions per minute], transmission gear, manifold vacuum, or any other parameter for the purpose of activating, modulating, delaying, or deactivating the operation of any part of the emission control system."
8. An element of design is "any control system (i.e., computer software, electronic control

system, emission control system, computer logic), and/or control system calibrations, and/or the results of systems interaction, and/or hardware items on a motor vehicle or motor vehicle engine.”

9. Each COC application must also include “a justification for each AECD, the parameters they sense and control, a detailed justification of each AECD that results in a reduction in effectiveness of the emission control system, and [a] rationale for why it is not a defeat device.”
10. A motor vehicle containing an AECD that can reasonably be expected to affect emission controls and is not disclosed or justified in the COC application does not conform in all material respects with the COC application, and is therefore not covered by the COC.
11. A “defeat device” is an 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, unless: (1) Such conditions are substantially included in the Federal emission test procedure; (2) The need for the AECD is justified in terms of protecting the vehicle against damage or accident; (3) The AECD does not go beyond the requirements of engine starting; or (4) The AECD applies only for emergency vehicles . . . .”
12. Motor vehicles equipped with defeat devices cannot be certified. EPA, *Advisory Circular Number 24: Prohibition on use of Emission Control Defeat Device*
13. Section 203(a)(3)(B) of the Act, makes it a violation “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.”
14. Section 203(a)(3)(A) of the Act prohibits any person from removing or rendering inoperative any device or element of design installed on a motor vehicle in compliance with the regulations promulgated under Title II of the Act prior to its sale and delivery to the ultimate purchaser.
15. It is also a violation to cause any of the acts set forth in Section 203(a)(3).

### **C. Reporting Requirements**

16. Section 208(a) of the Act requires that “[e]very manufacturer of new motor vehicles . . . establish and maintain records, perform tests . . . make reports, and provide information the Administrator may reasonably require to determine whether the manufacturer or other person has acted or is acting in compliance” with Part A of Title II of the Act.
17. Section 203(a)(2) of the Act prohibits any person from failing or refusing to make reports or provide information to EPA pursuant to Section 208 of the Act, 42 U.S.C. § 7542. It is also a

violation to cause any of the foregoing acts.

### **GENERAL ALLEGATIONS**

18. Volkswagen AG, Audi AG, VWoA and VWoA Chattanooga sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported into the United States (or caused one or more of the foregoing acts), new motor vehicles identified in Appendix A to this Complaint (“2.0L Subject Vehicles”).
19. Each of the 2.0L Subject Vehicles is equipped with a 2.0 liter diesel engine, and is part of model years 2009-2015.
20. In total, approximately 500,000 2.0L Subject Vehicles were sold in the United States.
21. VWoA submitted to EPA, on behalf of itself, and representing Volkswagen AG and Audi AG, the applications for COCs for the 2.0L Subject Vehicles.
22. Volkswagen AG, VWoA, Audi AG, Porsche AG, and Porsche Cars North America, Inc. sold, offered for sale, introduced into commerce, delivered for introduction into commerce, or imported into the United States (or caused one or more of the foregoing acts), new motor vehicles identified in Appendix B to this Complaint (“3.0L Subject Vehicles”).
23. Each of the 3.0L Subject Vehicles is equipped with a 3.0 liter diesel engine, and is part of model years 2009-2016.
24. In total, approximately 80,000 3.0L Subject Vehicles were sold in the United States.
25. VWoA submitted to EPA, on behalf of itself, and representing Volkswagen AG and Audi AG, the applications for COCs for certain 3.0L Subject Vehicles.
26. Porsche Cars North America, Inc. submitted to EPA, on behalf of itself, and representing Porsche AG, the applications for COCs for certain 3.0L Subject Vehicles.
27. Each COC issued by EPA during the time period relevant to this Complaint states on its face that the certificate covers only those new motor vehicles that conform, in all material respects, to the design specifications provided to EPA in the certificate application for such vehicle.
28. Each application for a COC constitutes a “report [and/or] information the Administrator may reasonably require . . .” to assess compliance with the Act, within the meaning of Section 208(a) of the Act, 42 U.S.C. § 7542(a).

#### **A. The 2.0L Subject Vehicles**

29. Each 2.0L Subject Vehicle contains one or more AECDs that were not disclosed,

described or justified in the application for the COC that purportedly covers the 2.0L Subject Vehicle.

30. The electronic control module (“ECM”) of the 2.0L Subject Vehicles contains software logic and/or calibrations that sense when the vehicle is being tested for compliance with applicable emission standards, based on various inputs including the position of the steering wheel, vehicle speed, the duration of the engine’s operation, and barometric pressure. These inputs precisely track the parameters of the federal test procedure (“FTP”) and other test cycles used for emission testing required to obtain a COC.
31. During FTP emission testing, the 2.0L Subject Vehicles’ ECM run software logic and/or calibrations that produce compliant emission results under an ECM calibration that VW has referred to as the “dyno calibration” (referring to the equipment used in emissions testing, called a dynamometer). At all other times during normal vehicle operation, the 2.0L Subject Vehicles’ ECM software run a separate “road calibration” that reduces the effectiveness of the emission control system. In other words, the 2.0L Subject Vehicles’ ECM software tracks the parameters of the FTP and causes emission control systems to underperform (or fail to perform) when the software determines that the vehicle is not undergoing the FTP.
32. The COC applications for the 2.0L Subject Vehicles described vehicle design specifications that were in compliance with regulations promulgated under Title II of the Act. The undisclosed design specifications of this dual-calibration strategy differ in a material respect from the design specifications disclosed in the 2.0L Subject Vehicles’ COC applications.
33. The 2.0L Subject Vehicles therefore are not covered by a COC.
34. This dual-calibration system results in increased NOx emissions by a factor of up to 40 times above the EPA-compliant levels, depending on the type vehicle and drive cycle (e.g., city, highway).
35. The software logic and/or calibrations installed in the ECM of the 2.0L Subject Vehicles render inoperative, bypass, or defeat certain elements of design installed on or in the 2.0L Subject Vehicles in compliance with applicable regulations.
36. VW entities including at least Volkswagen AG, VWoA and Audi AG knew or should have known that the software logic/and or calibrations were installed for such use or put to such use.
37. The software logic and/or calibrations installed in the ECM of the 2.0L Subject Vehicles has the effect of rendering inoperative devices or elements of design installed on or in the 2.0L Subject Vehicles in compliance with applicable regulations.

## **B. The 3.0L Subject Vehicles**

38. Each 3.0L Subject Vehicle contains one or more AECs that were not disclosed, described or justified in the application for the COC that purportedly covers the 3.0L Subject Vehicles.
39. The ECM of the 3.0L Subject Vehicles contains software logic and/or calibrations that cause the vehicle to perform differently when the vehicle is being tested for compliance with applicable emission standards, based on various inputs that appear to track the FTP and/or other test cycles used for emission testing required to obtain a COC, than when the vehicle is in normal operation and use.
40. During FTP emission testing, the 3.0L Subject Vehicles' ECM run software logic and/or calibrations that produce compliant emission results under an ECM calibration referred to as the "temperature conditioning mode." At other times during normal vehicle operation, the 3.0L Subject Vehicles' ECM software run a separate "normal mode" that reduces the effectiveness of the emission control system. In other words, the 3.0L Subject Vehicles' ECM software tracks certain parameters of the FTP and causes emission control systems to underperform (or fail to perform) when the software determines that the vehicle is not undergoing the FTP.
41. The COC applications for the 3.0L Subject Vehicles described vehicle design specifications that were in compliance with regulations promulgated under Title II of the Act. The undisclosed design specifications of this dual-calibration strategy differ in a material respect from the design specifications disclosed in the 3.0L Subject Vehicles' COC applications.
42. The 3.0L Subject Vehicles therefore are not covered by a COC.
43. This dual-calibration strategy results in increased NO<sub>x</sub> emissions by a factor of up to 9 times above the EPA-compliant levels, depending on the type vehicle and drive cycle (e.g., city, highway).
44. The software logic and/or calibrations installed in the ECM of the 3.0L Subject Vehicles render inoperative, bypass, or defeat certain elements of design installed on or in the 3.0L Subject Vehicles in compliance with applicable regulations.
45. VW entities including at least Volkswagen AG, VWoA, Audi AG, Porsche AG and Porsche Cars North America, Inc. knew or should have known that the software logic/and or calibrations were installed for such use or put to such use.
46. The software logic and/or calibrations installed in the ECM of the 3.0L Subject Vehicles has the effect of rendering inoperative devices or elements of design installed on or in the 3.0L Subject Vehicles in compliance with applicable regulations.

### **C. The Investigations and Concealment**

47. In or about May 2014, West Virginia University's Center for Alternative Fuels, Engines & Emissions ("WVU") published results of a study commissioned by the International Council on Clean Transportation, and conducted in collaboration with the California Air Resources

Board (“CARB”), that found on-road NOx emissions from two 2.0L VW light duty diesel vehicles (2012 Jetta and 2013 Passat) were significantly higher than the applicable emission standards established by EPA regulations.

48. Beginning in or about May 2014 through the present, CARB, in coordination with EPA, has investigated the reasons for the high in-use emissions, repeatedly questioning representatives from VWoA and Volkswagen AG about WVU’s findings.
49. In or about October 2014, those VW entities responded that the increased emissions from the vehicles studied by WVU were attributable to various yet-to-be-identified technical issues with the after treatment emission control systems and in-use conditions not represented by the FTP.
50. VW entities including at least VWoA represented to regulators that the vehicles’ software could be optimized to address the excess NOx emissions issue and issued a recall in December 2014 and March 2015 for 2.0L vehicles to address the excess emissions issue.
51. From approximately December 2014 through the present, CARB, in coordination with EPA, conducted its own testing to further investigate the reasons behind the high NOx emissions observed on VW’s 2.0L light duty diesel vehicles during real world driving conditions, and to investigate the effectiveness of the recall action. This on-road and laboratory testing showed limited reduction in the rates of emission of NOx of the recalled vehicles, and also revealed that the vehicles exhibited different behaviors during real world driving conditions than during FTP emission testing.
52. During the course of this investigation, VW entities including at least VWoA and Volkswagen AG suggested a number of potential technical issues and in-use conditions that might explain the higher emission test results, but none of those issues adequately explained why the 2.0L Subject Vehicles behaved differently while operating on the FTP test cycles versus while being driven on the road.
53. In or about September 2015, VW entities including at least VWoA and Volkswagen AG admitted that these 2.0L motor vehicles contained a defeat device in the form of a software algorithm or algorithms that detect when the vehicle is undergoing emission testing.
54. The United States’ efforts to learn the truth about the emission exceedances and other irregularities related to the 2.0L Subject Vehicles, including whether VW had committed the violations of federal law alleged herein, were impeded and obstructed by material omissions and misleading information provided by VW entities including at least VWoA and Volkswagen AG.
55. VW entities including at least Volkswagen AG knowingly concealed facts that would have revealed the existence of the dual-calibration strategy utilized in the 2.0L Subject Vehicles to regulators when they had a duty to share such information, and also engaged in affirmative misrepresentations and took affirmative actions designed to conceal these facts.
56. On October 8, 2015, Mr. Michael Horn, VWoA President and Chief Executive Officer,

testified before the United States House of Representatives Subcommittee on Oversight and Investigations Committee on Energy and Commerce, and admitted that VWoA and Volkswagen AG's representations to EPA and CARB that the increased NOx emissions from the 2.0L Subject Vehicles were due to technical issues were false.

57. During his October 8, 2015 testimony, Mr. Horn further admitted that the installation of the "defeat device" in the 2.0L Subject Vehicles was a knowing and willful decision to deceive.
58. Even after EPA issued its September 18, 2015 Notice of Violation to Volkswagen AG, Audi AG, and VWoA, and Mr. Horn's testimony before Congress, VW failed to come forward and reveal to regulators that the 3.0L Subject Vehicles contain one or more undisclosed AECs, including the dual calibration strategy involving the "temperature conditioning mode" and the "normal mode." The existence of this dual calibration strategy was uncovered only as a result of EPA and CARB's diligence.
59. On November 2, 2015, EPA issued a Notice of Violation to Volkswagen AG, VWoA, Audi AG, Porsche AG, and Porsche Cars North America, Inc., citing violations of the Act related to the dual calibration strategy involving the "temperature conditioning mode" and the "normal mode," and the resultant excess emissions in certain 3.0L light duty diesel vehicles.
60. VW entities including at least Volkswagen AG immediately issued a statement denying that software had been installed in 3.0L light duty diesel vehicles to alter emissions in a prohibited manner.
61. On or about November 23, 2015, VW entities including at least Volkswagen AG and Audi AG admitted that the 3.0L Subject Vehicles contain three undisclosed AECs, one of which – the temperature conditioning mode – is regarded as a defeat device under the Act and implementing regulations.
62. The United States' efforts to learn the truth about the emission exceedances and other irregularities related to the 3.0L Subject Vehicles, including whether VW had committed the violations of federal law alleged herein, were impeded and obstructed by material omissions and misleading information provided by VW entities including at least Volkswagen AG and Audi AG.
63. VW entities including at least Audi AG knowingly concealed facts that would have revealed the existence of the dual-calibration strategy utilized in the 3.0L Subject Vehicles to regulators when they had a duty to share such information, and also engaged in affirmative misrepresentations and took affirmative actions designed to conceal these facts.

#### PRAYER FOR RELIEF

WHEREFORE, Plaintiff, the United States of America, respectfully requests that the Court provide the following relief:

- a. Permanently enjoin VW from selling, offering for sale, introducing into

commerce, delivering for introduction into commerce, or importing in the United States (or causing any of the foregoing acts) any new motor vehicle not covered by a COC issued by EPA in accordance with the Act and the regulations promulgated thereunder.

b. Permanently enjoin VW from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing in the United States (or causing any of the foregoing acts) any new motor vehicle equipped with an AECD, except in compliance with the Act and the regulations promulgated thereunder.

c. Permanently enjoin VW from selling, offering for sale, introducing into commerce, delivering for introduction into commerce, or importing in the United States (or causing any of the foregoing acts) any new motor vehicle equipped with a defeat device.

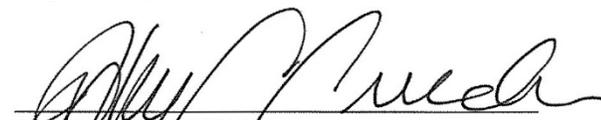
d. Permanently enjoin VW from bypassing, defeating, or rendering inoperative any device or element of design installed on or in a new motor vehicle in compliance with regulations promulgated under Title II of the Act.

e. Order VW to take appropriate steps, including, but not limited to, mitigation of excess NOx emissions, to remedy the violations of Sections 203(a)(1), 203(a)(3)(A), and 203(a)(3)(B) alleged above.

f. Enter a judgment that VW is liable to the United States for civil penalties for each violation of Section 203(a) of the Act, and assess civil penalties against VW as follows:

- i. up to \$32,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and up to \$37,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009 for violations of Section 203(a)(1) of the Act;
  - ii. up to \$32,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and up to \$37,500 per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009 for violations of Section 203(a)(3)(A) of the Act;
  - iii. up to \$2,750 per “defeat device” per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring before January 13, 2009, and up to \$3,750 per “defeat device” per 2.0L Subject Vehicle and 3.0L Subject Vehicle for each violation occurring on or after January 13, 2009 for violations of Section 203(a)(3)(B) of the Act; and
  - iv. up to \$32,500 per day of violation occurring before January 13, 2009, and up to \$37,500 per day of violation occurring on or after January 13, 2009 for violations of Section 203(a)(2) of the Act.
- g. Award the United States its costs in this action; and
- h. Grant such other and further relief as the Court deems just and proper.

Respectfully submitted,



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# Volkswagen: “Those whom the gods would destroy they first make mad”

**Stephen B. Young**

On Monday, February 8, 2016 I attended a workshop at the Wittenberg Center for Ethics in Wittenberg, Germany, to review why Volkswagen had so foolishly stooped to fraud in order to market cars powered by its diesel engines in the United States.

Our meeting room was less than 100 meters from the church door where 499 years ago Martin Luther posted his 95 theses challenging the orthodoxy of the Roman Catholic Church with respect to buying access to Heavenly bliss.

The lesson given us by both Luther and Volkswagen is that seeking short-cuts to spite the fates doesn't bring success.

The dynamic which led Volkswagen to this ethical failure and resulting financial loss was in its culture. There – in its values and supporting habits – was the poisoned chalice from which it drank. The Volkswagen culture reified arrogance – the madness for power which the Greeks feared as hubris because it brought on Nemesis.

First, there was arrogance at Volkswagen in not paying heed to American culture, particularly the American legal system. The risk of getting caught coupled with the costs of being caught were seemingly just not considered within Volkswagen's leadership. There was an intellectual failure to survey out to the far horizon for future risks. As Germans, they were too ethno-centric.

Second, there was arrogance in assuming without question that life can be mastered by smart engineers. It was said by several participants that for the Volkswagen culture every challenge could be overcome by one technology or another. Everything

in life was a problem open to solution; nothing was a condition which one must accept and to which one must accommodate one's desires.

Confidence in the hard mathematics and science standing behind engineering blinded those who worked for Volkswagen to more intangible realities of politics, public opinion, stakeholder interests, emotions, and the spiritual arts of living well.

This was a hubris brought on by taking excessive pride in only one form of human competence. It came from an intentional culture of elevating engineering skills to theological levels of goodness. Such culture was an idolatry, an anthropocentric illusion of mastery.

The best business practice in line with this culture was to hire good engineers and let them solve all the company's problems.

Third, there was corporate arrogance in not using an outsider's technology.

To solve the known problem of noxious exhausts produced by its diesel engines, one Volkswagen manager proposed to buy a corrective technology from Daimler Benz, a device which would spray urea into an automobile's exhaust triggering a chemical reaction which would reduce the expulsion of NO<sub>2</sub> into the atmosphere. His recommendation was rejected and he was fired.

# Outro:

“Those who can’t afford one should say it properly”

I have been writing these ‘Outros’ for about a year now and there are certainly some reoccurring themes. This makes sense, as the Caux Round Table (“CRT”) is focused on a very specific set of principles and business activities. However, what this can cause is a difficulty in coming up with new ways to approach the same problems.

The problems affecting capitalism as a system are very real. In one article recently on Forbes.com, the headline boldly stated, “Unless It Changes, Capitalism Will Starve Humanity By 2050.” The article went on to posit that the current state of capitalism includes an ever-increasing appetite for natural resources and low-cost labor. Indeed, to quote:

*Capitalism has generated massive wealth for some, but it’s devastated the planet and has failed to improve human well-being at scale.*

- *Species are going extinct at a rate 1,000 times faster than that of the natural rate over the previous 65 million years (see Center for Health and the Global Environment at Harvard Medical School).*

- *Since 2000, 6 million hectares of primary forest have been lost each year. That’s 14,826,322 acres, or just less than the entire state of West Virginia (see the 2010 assessment by the Food and Agricultural Organization of the U.N.).*

I believe that these types of challenges – overconsumption of resources, issues of inequality, disempowerment of workers – are, while far ranging, actually the easy problems.

For example, as has been written about numerous times in these pages, the CRT has been highly involved in the recently introduced U.N. Sustainable Development Goals (“SDGs”). Our Global Executive Director, Steve Young, has been in frequent contact with the U.N.’s Economic and Social Council regarding implementation of the SDGs working to convene discussion groups and round tables. These efforts tie directly into the issues that capitalism has with natural resources and human capital.

The problem presented in this issue of *Pegasus*, however, is a much tougher one to resolve. The actions of Volkswagen are representative of hubris, groupthink and a corporate culture that puts profits over ethics.

Far from the funny television ads and the sporty, efficient cars was the Volkswagen corporate boardroom, a boardroom led by Ferdinand Piëch. As I did a little research into the Volkswagen issue, I learned that this wasn’t the first time that Volkswagen’s ethics have been called into question. In fact, as written in the Atlantic:

“At a 2008 corruption trial that sent one VW executive to jail, Piëch referred to alleged widespread use of VW funds on prostitutes as mere “irregularities,” and chided a lawyer for mispronouncing *Lamborghini*. (“Those who can’t afford one should say it properly” were his precise words.) This was around the time the emissions cheating began.”

As the article concluded, it reiterated a common maxim: culture starts at the top. The problems with Volkswagen started at the top and worked their way down through all levels of the organization through a mixture of groupthink and normalization of deviance. This same type of activity has occurred, with perhaps less deviousness, in many other organizations ranging from B.F. Goodrich (U.S. Air Force brake scandal) to NASA (O-ring failures on the Challenger) and to Ford (Pintos exploding in the early 1970s). Scripts that the executives in these firms use to process information and eliminate stress, as explained in the Atlantic article, fuel the activity of cultural drift. Indeed, the executives of these organizations, Volkswagen included, don't merely act as if nothing is wrong or unethical; they actually begin to believe it themselves. Further, it is this belief and cultural stagnation that points to why this type of problem is potentially so much harder to solve than that of capitalist resource consumption.

This year marks twenty years of the CRT endeavoring to change these subconscious executive scripts and infusing them with ethical considerations. That is another element of why this monthly publication – and our efforts to approach the problems of capitalism in new and unique ways – is so important: these types of changes take time and require concerted, prolonged effort.

As always I welcome your comments.

*Erik Sande*  
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