

Spring 5-2-2016

Accounting for Automobiles: GAAP vs. IFRS for Record Setting Recalls

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Recommended Citation

Birtwell, Matthew, "Accounting for Automobiles: GAAP vs. IFRS for Record Setting Recalls" (2016). *Honors Scholar Theses*. 477.
https://opencommons.uconn.edu/srhonors_theses/477

Accounting for Automobiles: GAAP vs. IFRS for Record Setting Recalls

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University of Connecticut
Honors Accounting Thesis**

May 2016

ABSTRACT

“Accounting for Automobiles: GAAP vs. IFRS for Record Setting Recalls” leads an investigation into two of the most recent automobile scandals from automotive giants. Toyota went first in 2010 with its sudden unintended acceleration scandal and Volkswagen in 2015 with its diesel car emissions cheating scandal. This explores the various issues affecting these companies during these times and applying codification for contingent liabilities from both IFRS and US GAAP as well as assessing the stock and economic losses of these companies. It continues to report a forecasted income statement for Volkswagen, assessing which codifications would improve the two companies’ economic hit as well as return to normalcy best. As the two methods continue to converge, the research on the differences in contingent liability reporting depicts a way to continue the convergence.

Accounting for Automobiles: GAAP vs. IFRS for Record Setting Recalls

On August 28th, 2009, racing wildly down State Route 125 in California, Chris Lastrella made a phone call in the back seat of a 2009 Lexus ES350 while traveling with his family that would lead to the costliest automobile recall in history. In Lastrella's phone call with 911, he said to the operator, "The accelerator is stuck. We're approaching an intersection..."¹ Moments later, while crossing through the intersection of SR-125 and Mission George Road, one of the busiest intersections in San Diego County, the car swiped another traveling in excess of 100mph, careened off the road, through a fence and into a riverbed. The family of four traveling in the Lexus was killed on impact or in the ensuing fire. This harrowing tale began Toyota's massive recall of over nine million vehicles, ultimately costing the company over \$5 billion.²

Codification Background

To help Toyota and other companies deal with such recalls, regulatory organizations issue codification. The Financial Accounting Standards Board (FASB) issues the U.S. Generally Accepted Accounting Principles (GAAP) to provide accounting standards adopted by the US Securities and Exchange Commission (SEC). The International Accounting Standards Board (IASB) issues the International Financial Reporting Standards (IFRS) that is becoming the global standard for preparation of public company financial statements. Under US GAAP, Accounting Standards Codification (ASC) 450 and 460, as well as Statement of Financial Accounting Standards (SFAS) #5 and its Interpretation #45 all cover codification for accounting for product warranties,

¹ Brennan, Reilly. "Lexus Crash: An Avoidable Tragedy." Autblog. AOL, 10 Dec. 09. Web. 24 Feb. 2016.

² "5 Of The Largest Car Recalls In History." Investopedia. N.p., 22 May 2012. Web. 23 Feb. 2016.

guarantees, contingent liabilities and recalls. The main IAS that deals with product warranties and guaranties is IAS 37, *Provisions, Contingent Liabilities and Contingent Assets*.³ Despite working towards convergence of the two accounting boards' standards since the Norwalk Agreement in September 2002, there are still differences in the codification.⁴

According to ASC 450-20, warranties and recalls qualify as loss contingencies and are accounted as such.⁵ Due to the uncertainty surrounding loss contingencies, the ASC offers two primary approaches to account for these losses. One is to recognize losses using a probability threshold and the other is to measure using a fair value objective. Fair value means including obligations that have a less than likely probability because that's what a reasonable person would do in assuming another's risk. In addition to recall and product warranty being accounted for by ASC 450-20, it also includes pending or threatened litigation, which tends to happen in recalls, especially in the case of Toyota.

FASB SFAS #5 "Accounting for Contingencies" indicates how a company should account for their contingencies.⁶ It establishes standards of financial accounting and reporting for loss contingencies. Under the accrual method, a company would charge the loss contingency to income if two conditions were met. One is that the information was available before the issuance of the financial statements indicating that the liability had been incurred at the date of the financial statements. The other is the amount of the loss must be reasonably estimated. This second condition is important in the context of

3 "IAS 37- Provisions, Contingent Liabilities and Contingent Assets." USGAAPPlus. Deloitte, n.d. Web. 24 Feb. 2016.

4 "Contingencies: Key Differences between U.S. GAAP and IFRSs." USGAAPPlus. Deloitte, n.d. Web. 24 Feb. 2016.

5 "450 Contingencies: 20 Loss Contingencies." FASB Accounting Standards Codification®. N.p., n.d. Web. 24 Feb. 2016.

6 "Summary of Statement No. 5." FASB, Financial Accounting Standards Board. N.p., n.d. Web. 24 Feb. 2016.

automobile recalls because the company may decide on a recall, but not be able to reasonably estimate the cost until some point in the future. So the market may proactively respond to a recall before the effects hit the financial statements. It specifically prohibits accruals for general or unspecified business risks such as “reserves for general contingencies” in order to eliminate companies from manipulating financial statements.

ASC 460 establishes the accounting and disclosure requirements to be met by a guarantor for certain guaranties issued and outstanding.⁷ It deals generally with guarantees, and also deals specifically with product warranties in a subsection. The codification applies to both warranties sold separately and with the product, and whether the guarantee involves performance by the guarantor in services or cash. Generally, the objective of this ASC is to achieve transparency in a guarantor’s financial reporting about the obligations and risks arising from issuing guarantees in order to disclose information on the nature and amount, as well as to ensure comparability of guarantees that are sold separately or packaged into the sale of the product or services.

The FASB Interpretation #45 further improves SFAS #5.⁸ It clarifies requirements of SFAS #5 relating to guarantor’s accounting for and disclosures of certain guarantees issued. It requires disclosure of nature of the guarantee, approximate term, how it arose and the events that would require the guarantor to perform under the guarantee. Also, the maximum potential amount of future payments under the guarantee, the carrying amount of any liability for the guarantor’s obligations under the guarantee and the nature and extent of any recourse provisions or available collateral. It requires a table breaking down the warranties be included in all annual and interim financial statements. Along with the

7 "450 Contingencies: 20 Loss Contingencies." FASB Accounting Standards Codification®. N.p., n.d. Web. 24 Feb. 2016.

8 "Summary of Interpretation No. 45." FASB Accounting Standards Codification. FASB, n.d. Web. 24 Feb. 2016.

table, it requires disclosure of accounting policy and methodology in determining its contingent liability. It improves the financial reporting by improving the transparency regarding information on guarantor's obligations and liquidity risks related to guarantees issued.

The IASB applies to international accounting and US GAAP applies to accounting in the US. Despite efforts to converge the two for easier international commerce, they are hardly identical methods. The IASB creates more general principles to follow, while GAAP creates specific piece-by-piece process specific methods. IAS 37 outlines the accounting for provisions (liabilities of uncertain timing or amount), together with contingent liabilities (possible obligations and present obligations that are not probable or not reliably measurable). This has been in effect since 1999 and focuses on disclosure about the nature, timing and amount of provisions and contingencies. It aims to ensure that only genuine obligations are represented in the financial statements. An entity only recognizes a liability or provision if a present obligation has arisen as a result of an event, payment is probable and the amount can be estimated reliably.

Specific Differences Between US GAAP and IFRS

There are several similarities between the way FASB and IASB requires reporting. However, there are several key differences that companies may pick and choose or wish they could depending on the nature and location of their business. There exist some fundamental distinctions on the subject of contingent liabilities with some potentially significant implications in accounting methods.

IAS 37.14 and 23 and ASC 450-20 both deal with Loss Contingencies or Contingent Liabilities. IAS 37 groups provisions, loss contingencies and contingent assets in one section called Provisions found in IAS 37.10 providing guidance on a more general basis. US GAAP splits the sections into subsections providing guidance on each individually. Specifically, recalls are accounted for as loss contingencies, but it is an interesting distinction in the way US GAAP and IFRS provides guidance on accounting topics. Aside from that one overarching difference, the differences in the guidance related to recalls include differences in the recognition, measurement, discounting, and disclosure of provisions.

In terms of recognition of provisions, there are two major differences that can impact the financial reporting. The first deals with the definition of probable in the guidance. Under US GAAP, ASC 450-20 dictates loss contingencies are recognizable when it is probable that a liability has been incurred and the amount can be reasonably estimated. The ASC Master Glossary defines probable as the future event is likely to occur, with practice stating that it has a greater than 75-80% chance of occurring. Under IFRS, IAS 37.14 and 23 states that a provision is recognizable when a present obligation exists due to a past event, a transfer of economic benefits is probable and a reliable estimate can be made. For these purposes, probable under IFRS means more likely than not, which in practice means a chance greater than 50%⁹. The implication of this difference of definition is that it is possible under IFRS that a contingent liability will be recognized earlier than under US GAAP because of the probable threshold difference.

⁹ IFRS and US GAAP: Similarities and Differences. Place of Publication Not Identified: PricewaterhouseCoopers LLP, 2008. PwC, 1 Oct. 2013. Web. 24 Feb. 2016.

The second difference regarding recognition is that guidance under the IFRS includes three aspects instead of the two under US GAAP. The one that is most unlike the other two under IFRS than under US GAAP is the “present obligation” criteria. Due to the nature of contingent liabilities, which are a liability of uncertain timing or amount, the “present obligation” criteria may delay recognition under IFRS, unlike in US GAAP.

Measurement of the recall is a difficult calculation because of its inherent uncertainty. Both US GAAP and IFRS determine measurements of obligations depending on circumstances. However, the main idea for both is that it be measured at the best estimate of the amount to settle the present obligation or loss. However, as aforementioned, due to the uncertainty surrounding these obligations/provisions, there is usually instead a range. If that is the case, if there is no amount in the range more likely than any other amount in the range, then US GAAP uses the minimum amount according to ASC 450-20-30-1 and FIN 14.3 and IFRS uses the midpoint according to IAS 37.36-.40¹⁰. This difference has the implication of IFRS resulting in a higher liability being recorded when there is a range of equally possible outcomes.

Due to the time value of money concept and how recalls usually are not paid or settled immediately, discounting of contingent liabilities is common practice in the automobile industry. Consequently, the differences in the codification cause rather differences in the amount discounted. The standard for US GAAP reporting is to record the liability at its current amount, while the standard for IFRS in IAS 37.45-.47 is to record at a pre-tax discount rate based on the present value of the expenditures expected to settle the obligation if the discounting is material. The provision is then reviewed at the

¹⁰ "Contingencies: Key Differences between U.S. GAAP and IFRSs." USGAAPPlus. Deloitte, n.d. Web. 24 Feb. 2016.

end of each period and adjusted to reflect the current best estimate. The exception to the US GAAP discounting standard is if the timing of the related cash flow is fixed or reliably determined. Therefore, more provisions will be discounted under IFRS than under GAAP.

In terms of disclosure for contingent liabilities, US GAAP and IFRS are again fairly similar. The difference between them could have major implications though. Under US GAAP, ASC 450-20 indicates disclosure for loss contingencies are required even if they are not recognized so long as it is reasonably possible a loss may have been incurred. For IFRS, IAS 37.27-.28 and .86 state disclosures of contingent liabilities are required, unless the possibility of any outflow is remote. The difference is that the IAS carries an exception so that if the disclosure could seriously prejudice the position of the entity in a dispute with other parties, they may omit the disclosure.¹¹ The implication of this is that in litigation, under GAAP companies may incriminate themselves with disclosure of a contingency that under IFRS they may omit.

Toyota Recall Info

Beginning in 2009, Toyota's recall nightmare began with that terrifying phone call about a Lexus with a faulty accelerator. Besides dealing with the public perception problem and loss of public trust, the company first had to deal with getting the faulty cars off the road. After inspection of the Lexus ES350 revealed that the floor mats interfered with the gas pedal, causing it to stick, Toyota on September 29, 2009 announced the recall of 3.8 million Toyota and Lexus vehicles including the 2007-2010 model year

¹¹ "Introduction to International Financial Reporting Standards." Including Comparisons with US GAAP, China GAAP, and India Accounting Standards
International Trends in Financial Reporting under IFRS (2015): 1-12. Grant Thornton, 31 Aug. 2010. Web. 24 Feb. 2016.

Toyota Camry, the 2004-2009 Toyota Prius, the 2005-2010 Toyota Avalon, the 2005-2010 Tacoma, the 2007-2010 Toyota Tundra, the 2007-2010 Lexus ES 350 and the 2006-2010 Lexus IS 250 and IS 350.¹² Their temporary solution was to remove the floor mats and store them in the trunk while waiting to get the dealers to correct the problem.

On October 18, 2009, the LA Times published the first of several stories about the unintended acceleration in Toyota vehicles.¹³ The National Highway and Traffic Safety Administration (NHSTA) is a government mandated body created by the US Department of Transportation to investigate possible design and manufacturing defects in the vehicles we drive, and investigated several incidents of the unintended acceleration. Two of them had to do with floor mats, and six were dismissed due to lack of evidence. The article went on to cite five unintended acceleration cases in the past two years that involved fatalities and that hundreds of complaints had been filed with the government. On October 25, 2009 an investigation by the NHSTA revealed that floor mats in the ES350 were designed for another car causing the accelerator to stick. Toyota on October 30 sent out letters to owners about the upcoming recall citing “no defect exists”. A Toyota spokesperson announced Toyota was considering adding a safety override program to allow the brake pedal to override the accelerator when pressed. The NHSTA responded to Toyota’s letters of October 30, on November 2 rebuking their statements, saying that the floor mats was not the underlying issue of the unintended acceleration and that Toyota was misleading customers with their inaccurate statement that “no defect exists”.

Adding to the horrible public image of Toyota at the time, the LA Times released another article on November 8, 2009 claiming Toyota had ignored over 1,200 complaints

¹² 05, November. "Regulators Slam Toyota over 'no Defect' Claim." Los Angeles Times. Los Angeles Times, 05 Nov. 2009. Web. 24 Feb. 2016.

¹³ 18, October. "Toyota's Runaway-car Worries May Not Stop at Floor Mats." Los Angeles Times. Los Angeles Times, 18 Oct. 2009. Web. 6 Apr. 2016.

of unintended acceleration over the past eight years because the NHSTA had thrown the cases out. In the article, a Toyota spokesperson says it would be impossible to brake and stop a car while it's accelerating at full throttle. Even if the car operator was able to turn the car off, while traveling at speeds of over 120 mph, it would be almost impossible to stop the car without access to power assist brakes with the car being off. This issue is exacerbated by the new push to start feature Toyota had been implementing in its cars. Passengers were unable to turn the car off because they were unaware of the requirement to depress the engine start/stop button for three seconds. Especially while traveling at such high speeds, three seconds is a critical amount of time to dedicate to something in attempts to "maybe" slow the car. Another technical issue is that pressing the brake does not override the accelerator, so if stuck, pressing the brake will not slow the vehicle.

On November 16, 2009, Japanese media reports that Toyota made a deal with NHSTA on the recalls and although the company denies any agreement or deal to exist, they did put aside \$5.6 billion to deal with the recalls. On November 25, 2009, Toyota dealers are instructed to remove and replace the gas pedal to avoid any possible sticking to the floor mat. Also, they install a new program electronically to override the accelerator when the brake pedal is pressed. The NHSTA was right in refuting Toyota's press release that there were no defects except for the floor mats because in November 29, 2009, another LA Times article comes out. In this article, it claims that several Toyota owners still report unintended acceleration with their floor mats in their trunks as instructed by Toyota.

On December 5, 2009 Toyota issued a letter to the Times stating that the floor mats were the root cause of the unintended acceleration. Unfortunately for Toyota, on

December 26, 2009, a Toyota Avalon crashes into a lake due to unintended acceleration killing its passengers and floor mats were ruled out as a cause because they were found in the trunk after the car was pulled out of the lake. After two weeks of inaction, on January 11, 2010 Toyota announced its brake override software fix would be made global by 2011.

On January 21, 2010 Toyota recalls an additional 2.3 million vehicles because of a sticking gas pedal. Two days later, Agence France-Presse, a France based news agency, announces Toyota may recall 2 million more vehicles overseas. These problems cause Toyota to halt sales of all models affected by the latest recall, and announce a firm wide dealership and assembly line shutdown for one week beginning February 1. The temporary freeze of sales, according to Automotive News, estimates dealers could lose as much as \$1.5 million in profit every week. Toyota shares dropped 10% in a day and a half due to this unsettling news. Toyota goes on to recall an additional 1.1 million vehicles on January 27th, 2010 expanding its November 25th recall to include the Toyota Venza and more model years of the Toyota Highlander.

On February 9, 2010, President and CEO Akio Toyoda wrote an editorial titled “Toyota’s Plan to Repair Public Image” and published it in the Washington Post.¹⁴ In the editorial, Toyoda made a heartfelt appeal to the public to win back their trust. He listed in detail steps the company would take to improve its safety, investigate complaints and improve internal transparency and information sharing. Also, on this day, Toyota announced a recall of over 400,000 hybrid cars after the NHSTA received over 100

¹⁴ Toyoda, Akio. "Toyota's Plan to Repair Its Public Image." Washington Post. The Washington Post, 09 Feb. 2010. Web. 24 Feb. 2016.

complaints from Prius owners. This recall raised the total recall to over 8.5 million automobiles.

The impact of the Toyota recall was certainly felt. They had a dip in their shares, lost their place as the number one American automobile manufacturer, and are facing ongoing litigation from class action suits among other things. The loss of consumer confidence is also crucial to their ability to rebound from the short term hit. All in all, the recall affected Toyota and Lexus models over seven model years, as well as Pontiac models totaling over 8 million just in the United States. The recalls accounted for over 50% of Toyota's annual US sales.

Litigation and Fines (Criminal and Civil)

While Toyota was battling to regain the public's positive perception of the Toyota brand, they were dealing with further contingent liability due to ongoing litigation from class action lawsuits and government imposed fines for consumer safety negligence. Similar to recalls and warranties, litigation is classified as contingent liabilities. Not only did Toyota deal with a civil class action lawsuit, but also criminal litigation and levies imposed by the governmental agencies governing the automobile industry.

Civil Class Action for Loss in Value

In Toyota's groundbreaking class action suit regarding the massive recall, they reached a final settlement on December 26, 2012 applicable to all consumers who purchased or leased a recalled vehicle before December 28, 2012.¹⁵¹⁶ It began in May 2011 and was a contingent liability on Toyota's books sometime around then. In total, the

15 Vlasic, Bill. "Toyota Agrees to Settle Lawsuit Tied to Accelerations." The New York Times. The New York Times, 26 Dec. 2012. Web. 24 Feb. 2016.

16 "FAQ." Toyota Economic Loss Settlement. Toyota, n.d. Web. 24 Feb. 2016.

class action will cost Toyota anywhere from \$1.2-1.4 billion from different estimates for all its settlement requirements.¹⁷ Included in the settlement are two separate \$250 million reserves. One reserve is for distribution to eligible former owners, lessors and residual value interests for the loss in value in their cars as a result of the recall. One of the requirements for eligibility is completion of a Claim Form by July 29, 2013. Another is that the former owners or lessors and residual value insurers are limited to the time period of September 1, 2009 through December 31, 2010 because it was during that time period that the subject vehicle's' value diminished. The second reserve is for eligible class members in lieu of a brake override system installation. Those excluded from this fund are either owners of hybrids, already received the system upgrade, or are eligible for the system update. The other benefits of the settlement include a brake override system installation, a customer service program that essentially improves the car's current warranty, and contributions of \$30 million to fund automobile safety research and education related to issues in the lawsuit. The court also awarded Class Counsel attorney's fees of \$200 million plus an additional \$27 million in fees and expenses, which will go to the firms and approximately 85 attorneys who worked on the litigation. Also, payments to the 25 plaintiffs and Class Representatives will be awarded in total of \$395,270 for their time invested. While the numbers seem large, the class population is so large that the amount of money awarded to each class action member will be low. To account for this large settlement, Toyota took a \$1.1 billion charge against 2012 4th quarter earnings to cover the costs.¹⁸

17 Vlasic, Bill. "Toyota Agrees to Settle Lawsuit Tied to Accelerations." The New York Times. The New York Times, 26 Dec. 2012. Web. 24 Feb. 2016.

18 "Toyota Class Action Lawsuit." Toyota-Lawsuit.com. Beasley, Allen, Crow, Methvin, Portis & Miles, P.C., n.d. Web. 24 Feb. 2016.

Fraudulent Criminal Suit

Worse than the civil litigation is the criminal penalties Toyota incurred. “The charge is that Toyota defrauded customers in the fall of 2009 and early 2010 by issuing misleading statements about safety issues in Toyota and Lexus vehicles.”¹⁹ U.S. Attorney Preet Bharara for the Southern District of New York had strong feelings about Toyota’s actions during the recall: “In its zeal to stanch bad publicity in 2009 and 2010, Toyota misled regulators, misled customers, and even misstated the facts to Congress.” The criminal lawsuit was settled as a deferred prosecution agreement that means they defer prosecution of the crimes for three years and then will seek to dismiss the charges. In exchange for this lenient deal, Toyota agreed to pay fines of \$1.2 billion as a criminal fraud charge, the largest in history against any automaker on March 19, 2014. The money will come as a charge against after-tax earnings in the fiscal year ending March 31, 2014. \$50 million of this fine goes to a Collaborative Safety Research Center in Ann Arbor, Michigan to work on safety advances for the entire industry.²⁰

NHTSA Fines

The last fine Toyota had rendered against them was by the NHTSA. The organization fined Toyota 4 times during the recall time period, for a grand total of \$66.15 million. Each separate fine was the largest amount allowable under the law. The first fine was levied on Toyota on April 19, 2010 and was the largest civil penalty ever assessed against an automaker by the NHTSA in its history at that time.²¹ That penalty was in relation to the sticky pedal defect, which led to the recall of 2.3 million Toyota

19 "Justice Department Announces Criminal Charge Against Toyota Motor Corporation and Deferred Prosecution Agreement with \$1.2 Billion Financial Penalty." Justice News. The United States Department of Justice, 19 Mar. 2014. Web. 24 Feb. 2016.

20 Muller, Joann. "Toyota Admits Misleading Customers; Agrees To \$1.2 Billion Criminal Fine." Forbes. Forbes Magazine, 19 Mar. 2014. Web. 24 Feb. 2016.

21 Piscitelli, Julia. "Statement from U.S. Transportation Secretary Ray LaHood on Toyota's Agreement to Pay Maximum Civil Penalty ." NHTSA. US Department of Transportation, 19 Apr. 2010. Web. 24 Feb. 2016.

automobiles in late January 2010. The second and third fines were levied on Toyota simultaneously on December 20, 2010 for a grand total of \$32.425 million.²² One of these two fines is due to the floor mat issues that led to the recall of nearly five million vehicles, totaling \$16.375 million. The other fine was for a recall investigated in 2004-2005 about a loss of steering control for \$16.050 million. The final fine levied on Toyota was 2 years later on December 18, 2012. The NHTSA asserted that this fine was due to Toyota's failure to report their safety defects of 2009 and 2010 to the federal government in a timely manner. Again, this fine was the maximum allowable under the law totaling \$17.35 million.²³

Stock and Economic Impact

In the wake of the recall announcements of 2009 and 2010, Toyota was hit hard economically. While recalls are an expected part of business for automakers, Toyota did something unheard of extraordinarily hurting sales. Toyota on January 26th temporarily halted production at six assembly plants in the US and suspended sales of its eight most popular models, including the Camry. The models accounted for 60% of Toyota's sales and inventory in 2009. US Toyota dealers were projected to lose as much as \$2.47 billion in revenue from the suspension and individual car dealers were set to lose as much as \$2 million per month in revenue.²⁴ Not surprisingly, this economic news caused shareholders concern and the stock price plummeted to its lowest level since January

22 Alair, Olivia. "Toyota Motor Corp. Will Pay \$32.425 Million in Civil Penalties as Result of Two Department of Transportation Investigations ." NHTSA. US Department of Transportation, 20 Dec. 2010. Web. 25 Mar. 2016.

23 Aldana, Karen. "Toyota Motor Corp. Will Pay Record \$17.35 Million in Civil Penalties for Alleged Violations of Federal Law ." NHTSA. US Department of Transportation, 18 Dec. 2012. Web. 25 Mar. 2016.

24 "Accelerating Into Trouble: An Analysis of Toyota Motor Company and Its Recent Recalls." 2011 Case Study Competition. Arthur W. Page Society, n.d. Web. 25 Mar. 2016.

2006, and its monthly sales dropped below 100,000 cars for the first time in a decade. The stock slid 17% since the recall was announced during this treacherous time.

A stock analyst report from February 3, 2010 done by JP Morgan supports the idea of short-term decrease in sales and sharp decline in stock prices, followed by a recovery. An interesting point of the report was that the stock was not undervalued at this time, despite its low valuation. Aside from the costs of recall, litigation expenses, and expected decrease in sales, another major impact on the valuation is Toyota's brand reputation and longer term profitability that both are either uncertain or have taken a hit from the recall scandals.²⁵ The low valuation is appropriate due to the uncertain outlook for earnings in the short run. It's value as of February 1st, 2010 reached a low of \$71 per share, dropping from a high in January 11, 2010 of \$91.88.

The stock suffered from Toyota's recall, fines and problems with brand reputation. After the first recall was announced in September 29, 2009, the stock fell about 8% from the prior two weeks. In April and May, 2010, NHSTA fines coupled with more recall announcements in late January caused the stock to significantly drop again from the eventual rebound from the fall after Jan 11, 2010 on March 22, 2010 of \$82.46 to \$68.02 in June 28, 2010 the slip of around 17%.²⁶

Stakeholders lost confidence in the company, due to conflicting statements from Toyota and Toyota USA CEOS Akio Toyoda and Jim Lentz in late February, 2010. Not only did Toyota hurt itself with its recall situation, it opened an opportunity for others to

²⁵ "Toyota Motor (7203)," J.P. Morgan. 03 Feb. 2010.

²⁶ "Toyota Motor Corporation." Yahoo! Finance. Yahoo!, n.d. Web. 25 Mar. 2016.

fill in. During this time, companies like Ford and Hyundai each posted 24% sales gains, stealing away Toyota's slipping market share.

Despite intense fines, litigation fees and recall settlements, Toyota was able to successfully maneuver out of the hole they got themselves in quickly. On August 4, 2010, Toyota announced it had returned to a profit of \$2.2 billion in the April-June quarter because of strong sales in emerging markets and aggressive cost cutting.

Financial Statement Analysis

Toyota is an International Corporation, so they file a Form 20-F, a similar form to the 10-K filed by domestic public companies in the United States, but a requirement for foreign private issuers of equity shares in the United States. Companies with less than 50% of voting shares held by US investors are eligible for this form. Its goal is to standardize reporting for foreign-based companies so investors can better evaluate their investments alongside domestic company's 10-Ks.²⁷ While Toyota has the option to report according to the IASB, they have opted to report using US GAAP for their fiscal reporting periods ending March 31st.

The effect of the recalls is apparent on Toyota's financial statements. The major impacts are seen in the contingent liability created by the recalls, the litigation fees and fines, and the costs of suspended sales. The company's 20-F describes its accounting for contingent liabilities as "recorded when they are determined to be probable and

27 "SEC Form 20-F Definition." Investopedia. N.p., 10 Apr. 2008. Web. 25 Mar. 2016.

reasonably estimable” as ASC 450-20 requires.²⁸ Beginning with the financial statements for the fiscal year ending March 31st, 2009, the calm before the storm is disclosed in the statements. Within the 20-F for the FY2009, Toyota discloses its methods for many of the relevant line items pertaining to the recall expenses and liabilities. At this time, before any major recalls had been announced and before the major accident that set it in motion, they estimated their product warranty cost based on historical experience of product failures and current information on repair costs. The provision for the estimated warranty cost is included as a component of cost of sales at the time the sale is recognized. The provision, ending and beginning balance as well as payments made can be seen year to year in Appendix II. Net changes in accrual for product warranties over the fiscal years are included in the Accrued Expenses line item in the consolidated income statement as seen in Appendix III. The chart in Appendix III shows the spike in accrual during the recall years. Toyota accrues costs relating to their recall based on management’s estimates and are recorded when determined probable and readily estimable. Being an international company, fluctuations in currency exchange rates can have significant impacts on the financial statements. In the financial statements analyzed from FY2009 to FY2015, the exchange rates fluctuate from a low of ¥82.19=\$1 and a high of ¥120.17=\$1. Toyota translates foreign subsidiary financial statements into Japanese yen using appropriate period end rates. Consequently, when consolidating the financial statements into the Japanese yen, line items are impacted. Accrued expenses in FY2009 decreased 4.1% from the prior fiscal year from foreign currency translation fluctuation.

²⁸ Toyota Motor Corporation (2009). 20-F Report. Retrieved from <http://www.sec.gov/Archives/edgar/data/1094517/000119312509136292/d20f.htm#toc>

In FY2010, the financial statements show the hit the company took from the recalls of September, 2009 and January and February 2010. While warranty costs remain estimated the same way as FY2009, the way Toyota estimates the cost of their recalls changed during the 4th quarter of the year as a result of the recent recalls. At this time, they employed an estimation model, to accrue at sale, an amount that represents management's best estimate of expenses relating to future recalls and other safety measures. Prior to this change, the recalls were estimated based on individual occurrences of recalls and safety measures. The change led to a \$1.14 billion or ¥105,698 million decrease in operating income in the 4th quarter. The company's quarterly operating income was increasing steadily going from a loss of ¥194.90 billion to a gain of ¥189.10 billion from the 1st to 3rd quarter.²⁹ It was expected to continue rising, but the change in estimating recall costs brought the 4th quarter down to ¥95.30 billion instead of a higher possible ¥200 billion. In the next year FY2010, operating income was much improved from the prior year increasing to ¥608.53 billion from an operating loss the prior year. However, it would be more telling to compare FY2010 to FY2008. FY2009 had an operating loss because of the global economic downturn that affected international markets. FY2008 had operating income of ¥2,270.30 billion and fell to -¥461.01 billion the next year. FY 2008 had 8.91 million vehicles sold and the recession in FY2009 caused Toyota to only sell 7.56 million. So, in FY2010, Toyota not only was dealing with recovering from the economic recession, but also battling the unloading of recall expenses. Very telling of their troubles was in their Accrued Expenses increasing 12.7% from the prior period primarily due to an increase in recall expenses. Surprisingly,

²⁹ "FY2010 Financial Results." FY2010 Financial Results (n.d.): n. pag. Toyota Global. Toyota Motor Corporation, 11 May 2010. Web. 25 Mar. 2016.

compared to the recession FY2009, vehicle sales did not bounce back and in fact continued to slump to 7.23 million vehicles. Aside from the recalls deterring potential buyers and the economic recovery attempts, one of the main reasons of the sales slump was the temporary suspension of sales started January 26th, also contributing to a low operating income of only ¥147,516 million.

The cost of products sold is a complex piece with inputs from changes in vehicle unit sales, sales mix, part sales, fluctuations in foreign currency translation rates, cost reduction efforts and miscellaneous costs including quality initiatives (recall and warranty expenses), R&D expenses, and labor costs. The complexity of this line item makes it hard understand using readily available information like total cost of products sold and number of cars sold to see the cost per car. Therefore, the better way to see the effect of the recalls on the cost of products sold is to separate it from the total. This information can be found in the Results of Operations section. This ¥100 billion increase for recall related expenses can be found there, but is otherwise tough to see from the aggregate total. For example, in FY2009 the aggregate cost of products sold was ¥17.50 trillion compared to that of FY2010 of ¥16 trillion even though the recall provisions increased ¥97.10 billion. The mix is extremely important for Toyota to keep their Operating Income growing from the recession and recall scandal.

Likely in response to the recall fiasco of FY2010, in FY2011, Toyota changed up its reporting of its warranties, recalls and other safety measures. In prior periods, the financial statements only included a chart showing the breakdown of the liability for product warranties. Beginning in FY2011, an aggregate chart of recall and warranty expenses was shown, alongside another chart of just the recall expenses. Provisions for

recalls made during the year increased ¥100 billion from the prior period due to ongoing recall expenses. Accrued expenses increased 2.1% because of these ongoing recall expenses. Operating income, though, still grew by 217.4% due to a mix of elements similar to those affecting the cost of products sold among others. FY2012 doesn't have much in regards to the recall and associated expenses/liabilities. Provisions for recalls decrease by ¥120 billion due to the spike from the prior FY. A major drop occurred in its payments for recall expenses during the year as a result of the major recall activity occurring the prior period. It dropped about ¥104 billion. Still, Toyota is unable to readily estimate the litigation expenses, other than those accrued, so are still not recognized as contingent liabilities in the financial statements. Toyota does make a point in its footnotes to disclose that upon settlement of the litigation, the resolution of those matters may have an adverse effect on Toyota's financial position.

IN FY2013, the litigation for the civil class action suit settled. Not surprisingly, accrued expenses increased 19.5% from ¥1.8 to ¥2.2 trillion related to the settlement of the economic loss claims in the consolidated federal action. Toyota recorded a \$1.1 billion pre-tax charge against earnings for FY2013 to cover the costs of this and other settlements. In addition to the ¥90 billion charge against earnings for the litigation settlement, a weakening yen led to a ¥50 billion increase in warranty and recall provisions.

Further weakening of the yen to the dollar continued through FY2014. Interestingly, this is the first financial statements in which Toyota stopped reporting USD \$ side by side with Japanese Yen ¥, and instead solely used the Japanese Yen ¥. The jump from ¥94.05=\$1 to ¥102.92=\$1 provided Toyota with an extra ¥900 billion in

operating income, being the primary reason for the increase in operating income of 73.5% from the prior period. Provisions and payments remained fairly stable from the prior period to FY2014, but there was another litigation settlement that impacted earnings. The criminal case opened in February, 2010 led by the US Attorney of the Southern District of New York settled for a record breaking \$1.2 billion charge against FY2014 earnings. The ¥125 billion payment contributed to the operation cost increase of 12.8% from the prior period caused primarily by the fluctuation in exchange rates. Accrued expenses increased 5.8% from the prior period mostly due to an increase in product quality related expenses, probably related to the translation rate fluctuation (but not positive- increase of about ¥114 billion in balance for recall, ¥151 billion total warranty and recall, but only a ¥127 billion increase in accrued expenses. FY 2015 has similar results as that of FY2014. The currency exchange rate rose to ¥120.17=\$1, bringing operating income up 20% with it. There was an increase of ¥140 billion in product warranty and recall expenses, and accrued expenses increased 15.4% primarily due to that increase. It is interesting to note that accumulated liability for product recalls is on an upward trend from FY2008 to FY2015, regardless of what goes on during the period or what happens to other account balances. Seen in Appendix I and III, the accumulation grows from \$16 billion in 2008 \$22 billion in 2015.

If Toyota Used IFRS

In recognition of the liabilities, the difference in definition of probable would have little effect if Toyota reported using IASB vs. GAAP. Toyota could not accrue the liability until it was both probable and reasonably estimable. Because the liability was

never reasonably estimable, according to the financial statements in advance of its recognition, it would not matter which reporting standards Toyota applied. However, if given the option, Toyota should choose IFRS to report the recall because it offers the company the opportunity to report a contingent liability earlier than under GAAP due to the definition of probable in each codifications' conditions for reporting a contingent liability. By reporting earlier, investors would have more certainty going forward in their investments allowing investors the opportunity to repair the damage done to the stock value sooner. As put in the "The Known, the Unknown, and the Unknowable in Financial Risk Management: Measurement and Theory Advancing Practice":

"Uncertainty—in the Knightian sense of unquantifiable risk—is endemic in such situations. Uncertainty drives people to protect themselves—to sell the asset whose price is already declining, to avoid the counterparty whose financial strength might conceivably be impaired, to load their portfolios with safe and liquid assets." ³⁰

In the same sense, the opposite would hold true that certainty would increase investment, provided of course the returns were promising, as they have been in Toyota's career.

In my opinion, one of the most important differences is not in the when the contingent liability is recognized, but what the total liability amount is. Especially dealing with contingencies, which are uncertain in nature, measuring them can be difficult. Therefore, the codification for GAAP and IFRS offer guidance on how to estimate it. When the number cannot be estimated accurately, but a range is available, under GAAP the minimum of the range is reported while in IFRS, the midpoint is reported. Obviously then, for companies that want to disclose the contingency so their company can begin to

30 Kohn, Donald L. "Crisis Management." The Known, the Unknown, and the Unknowable in Financial Risk Management: Measurement and Theory Advancing Practice. Princeton, NJ: Princeton UP, 2010. N. pag. Print.

heal from the recall, it might make sense to report a smaller amount so their investors won't be shaken off and can begin to heal as well. Ideally, in Toyota's case, they should continue to use US GAAP for both the measurement of their contingencies but use IFRS for their recognition. While this is not a possible reality, in a hypothetical world, this combination of reporting from both codifications would make for the best scenario for both consumers and companies. The provision would be adjusted when the amount is known with certainty; so reporting a higher amount earlier than necessary is itself unnecessary and detrimental to a company's equity health.

The discounting of provisions for the recalls Toyota underwent is reasonable as their aggregate liability for recalls would cover multiple periods. Under US GAAP, discounting is only applicable when there is a fixed amount of time that the liability will be paid over. In IFRS, the discounting occurs after every period to reflect the present value of the liability to be paid. For this case then, Toyota should be able look to IFRS for its discounting protocol because the amount of their provisions will be discounted more frequently and more likely for it to be discounted. Again, with contingent liabilities, time and amount are difficult to estimate, so IFRS eliminates the need for estimating length of time to pay off the liability and simply discounts every period, lowering the overall cost based off present value. Additionally, under US GAAP, more charges would be seen against its operating income thereby suppressing its overall net income. While this combination of codification is not yet a reality, as the Norwalk Agreement continues the convergence of the two methods, this analysis provides the best combination for convergence.

After analyzing Toyota, a company that reported its finances using US GAAP during their serious recall from their sudden unintended accelerations scandal and assessing the best way to report, the next step is to analyze a current scandal ongoing with Volkswagen and their rigged emissions testing scandal. Volkswagen uses IFRS to report their finances and there is room to improve reporting if they could hypothetically use a combination of IFRS and GAAP in reporting, just like it would have benefitted Toyota.

Volkswagen Recall History

Best described by Michael Horn, Volkswagen CEO of USA sums up the emissions scandal simply, admitting the company had “totally screwed up.”³¹ Volkswagen is currently involved in an ongoing scandal regarding cheating on the Environmental Protection Agency’s (EPA’s) emissions tests for their diesel engine cars. Volkswagen is releasing tens of times the legal limit of nitrous oxides (NOx), directly increasing chances of respiratory problems, damage to lung tissue and premature death. It also contributes to ozone, by causing atmospheric reactions with volatile organic compounds that produce ozone in the atmosphere. Children are at the highest risk from experiencing negative health impacts of breathing ozone, including chest pain, coughing, throat irritation, congestion, can worsen bronchitis, emphysema, asthma and premature death.³²

31 Thompson, Mark, and Ivana Kottasova. "Volkswagen Scandal Widens." CNNMoney. Cable News Network, 22 Sept. 2015. Web. 6 Apr. 2016.

32 US v. Volkswagen AG. US District Court for the Eastern District of Michigan. 4 Jan. 2016. The US Department of Justice. N.p., 4 Jan. 2016. Web. 6 Apr. 2016.

It all began with a European non-profit company called the International Council on Clean Transportation (ICCT) interested in convincing European regulators to emulate strict U.S. standards for diesel emissions of nitrous oxides (NOx).³³ To prove their point, they contracted West Virginia's University's Center for Alternative Fuels, Engines and Emissions (CAFEE) to test three diesel engine cars: a Volkswagen Jetta, a Volkswagen Passat and a BMW X5.³⁴ Testing was completed in 2013 and 2014, and the final report was issued on May 15, 2014. CAFEE compared real world driving emissions data with the US-EPA Tier 2-Bin 5, far more rigorous standards for emissions than Europe's Euro 5 standards.³⁵ The results were telling, the BMW was generally at or below the standard, while the Volkswagen Jetta exceeded the standard for NOx emissions by 15 to 35 times and the Volkswagen Passat exceeded the standard by 5 to 20 times.³⁶ ICCT's executive director Drew Kodjak emphasized that these excessive pollutive emissions is not isolated to the US, but they have found discrepancies in Europe between real world emissions and regulatory levels saying, "This is a global problem that will require a coordinated global solution."

The EPA and California Air Resources Board (CARB) began investigating jointly in May 2014 the emissions of Volkswagen's diesel automobiles after the ICCT's profound results. The ICCT's report and the joint investigation by the EPA and the CARB stayed rather quiet with little to no media coverage, allowing Volkswagen's environmental pollution to slide unnoticed during this time. Adding scandal to scandal, the inferred organizational public deceit is coupled with former CEO Martin

33 Ross, Philip E. "How Engineers at West Virginia University Caught Volkswagen Cheating." IEEE Spectrum. N.p., 22 Sept. 2015. Web. 6 Apr. 2016.

34 Kodjak, Drew. "EPA's Notice of Violation of the Clean Air Act to Volkswagen." ICCT. N.p., n.d. Web. 6 Apr. 2016.

35 Voelcker, John. "Volkswagen Diesel Emissions Scandal: What You Need to Know in 10 Questions (updated)." Green Car Reports. N.p., 17 Mar. 2016. Web. 6 Apr. 2016.

36 Kodjak, Drew. "EPA's Notice of Violation of the Clean Air Act to Volkswagen." ICCT. N.p., n.d. Web. 6 Apr. 2016.

Winterhorn's reception of a memo about the diesel emissions problem in May 2014 and did not alert the public. In December 2014, a voluntary recall was issued on half a million-diesel cars to address the emissions issues with a technical software patch to be rolled out over the next few months.³⁷

In April 2015, a letter issued from Volkswagen of America was sent to California owners of diesel Audis and Volkswagens for an emissions related recall. The letter stated the owners needed to take their cars for new software to make sure emissions were "optimized and operating efficiently."³⁸ Still, Volkswagen made no mention of the fact that they intentionally duped environmental regulators, and so continued to fly under the radar. In May 2015 CARB finally tested one of the newly reprogrammed vehicles, a 2012 Passat TDI and detected the emissions were better but still above the legal regulatory limit. On July 8, CARB then informed Volkswagen of its findings, and between July 8th and September 3rd, CARB and the EPA say they will not certify Volkswagen's 2016 diesel lineup, effectively halting the process of getting those cars on sale. Then, on September 3, 2015 Volkswagen finally admits to the growing suspicion, that they engineered the diesel cars with a "defeat device" to cheat emissions tests. Finally, on September 18th, 2015, despite Volkswagen's attempts to cut a deal with the regulators, the EPA publicizes that Volkswagen installed "defeat devices" affecting more than 480,000 diesel powered vehicles emitting up to 40 times the legal limit of NOx pollutants violating the Clean Air Act, a federal law designed to control air pollution on a national level. The Obama Administration ordered Volkswagen to recall the 482,000 diesel

37 Voelcker, John. "Volkswagen Diesel Emissions Scandal: What You Need to Know in 10 Questions (updated)." Green Car Reports. N.p., 17 Mar. 2016. Web. 6 Apr. 2016.

38 Sage, Alexandria. "Exclusive: Volkswagen Recall Letters in April Warned of an Emissions Glitch." Reuters. Thomson Reuters, 24 Sept. 2015. Web. 6 Apr. 2016.

vehicles that cheated emissions testing including the 09-15 Volkswagen Jetta, Beetle, Golf, the 09-15 Audi A3, and the 14-15 Volkswagen Passat³⁹. Additionally, it mentions that the Department of Justice can institute civil fines on Volkswagen up to \$37,500 per vehicle.⁴⁰

After the emissions scandal hit the press on September 18th, 2015, there was a flurry of action. September 21 had Volkswagen ordering dealers to halt sales of the recalled TDI models and a stop-sale order for certified pre-owned cars with similar diesel engines. The following day, Volkswagen announced it had installed “defeat devices” on roughly 11 million vehicles worldwide. On October 15th, 2015 Volkswagen announces plans to recall 8.5 million diesel engine vehicles in Europe, with remedial action beginning in February 1st, 2016.⁴¹ More than half of all vehicles sold in Europe are diesel, influenced by governmental policies making diesel fuel cheaper, which will have an immense impact on Volkswagen’s European operations. On November 2nd, 2015 the EPA announces they have found more illegal defeat devices unreported by Volkswagen and issue recall orders for the following cars: 2014 Volkswagen Touareg, 2015 Porsche Cayenne SUVs, plus the 2016 Audi A6, A7, A8 and Q5 vehicles and the following day Volkswagen told its dealers to stop sales for the affected vehicles and the Audi Q7. A detailed list can be found in Appendix IX.

On November 9, 2015, Volkswagen takes the first steps in trying to appease its customers in the US that own the diesel engine cars. It offered a goodwill package consisting of \$500 and \$500 credit at Volkswagen dealerships, as well as three years of

39 Davenport, Coral, and Jack Ewing. "Volkswagen Is Said to Cheat on Diesel Emissions; U.S. to Order Big Recall." *The New York Times*. N.p., 18 Sept. 2015. Web. 6 Apr. 2016.

40 Geiger, Jennifer. "EPA: Volkswagen Violated the Clean Air Act With Diesels." *Cars.com*. N.p., 18 Sept. 2015. Web. 6 Apr. 2016.

41 Ramey, Jay. "Volkswagen Diesel Recall Begins in Europe; U.S. Fix Remains Uncertain." *Autoweek*. N.p., 1 Feb. 2016. Web. 6 Apr. 2016.

24-hour roadside assistance at a cost of about \$250 million.⁴² Interestingly, in Europe, the European Commission and lawmakers are considering compensating consumers similarly to the scheme in the States.⁴³ Current owners of Volkswagen can get a \$2,000 cash rebate towards the purchase of a new Volkswagen car.⁴⁴ Later in November on the 25th, Volkswagen withdrew its application to register 2016 diesel cars in the US continuing the stop sales. Finally in January of 2016, Volkswagen submitted a proposal to fix the diesel-tainted cars in response to the US Department of Justice requirement of the recall. It has grown to include 580,000 vehicles, but the EPA and CARB rejected the proposal for not containing sufficient detail on how the change would affect fuel economy and performance. This inability to come up with a solid plan raises fears of a company buyback plan to compensate the diesel owners for their emission cheating cars. The cost of the buyback may be cheaper than the recall costs. Kelley Blue Book estimates the cost of such a program in the United States at \$7.3 billion and Bloomberg Intelligence estimates it at \$9.4 billion as of October 2015.⁴⁵⁴⁶ So, a judge gave Volkswagen six months and required a new plan by March 24th.⁴⁷ March 24th came and Volkswagen requested and received another month to come up with a plan. Possible plans include a regulator approved technical fix, a buyback plan or other remedies due by April 21st, 2016 (See Update).⁴⁸

42 "Volkswagen Scandal...in Two Minutes." CNNMoney. Cable News Network, 25 Nov. 2015. Web. 6 Apr. 2016.

43 "Volkswagen Plans 'Generous' Compensation For Emissions Fraud." International Business Times. N.p., 07 Feb. 2016. Web. 6 Apr. 2016.

44 Attiyeh, Clifford. "Everything You Need to Know About the Volkswagen Diesel Emissions Scandal." Car and Driver. N.p., 21 Apr. 2016. Web. 25 Apr. 2016.

45 Hirsch, Jerry. "Lawsuit Seeks Volkswagen Buyback of Emissions-cheating Diesels in California." Los Angeles Times. Los Angeles Times, 12 Oct. 2015. Web. 6 Apr. 2016.

46 Behrmann, Elizabeth. "Volkswagen Receives Approval to Fix Diesel Cars in Europe." Bloomberg.com. Bloomberg, 16 Dec. 2015. Web. 6 Apr. 2016.

47 Voelcker, John. "Volkswagen Diesel Emissions Scandal: What You Need to Know in 10 Questions (updated)." Green Car Reports. N.p., 17 Mar. 2016. Web. 6 Apr. 2016.

48 Randazzo, Sara. "Judge Extends Deadline for Volkswagen Diesel-Engine Fix Proposal." WSJ. N.p., 24 Mar. 2016. Web. 6 Apr. 2016.

On April 21st, a deal was finally made between Volkswagen and the Department of Justice regarding how to handle the scandal. The deal includes an offer to buy back up to 480,000 of its 2.0-liter diesel cars plus cash compensation. The deal will be finalized on June 21, and there are still a lot of unknowns including what to be done about the remaining 80,000 3.0 liter diesels. The following day, Volkswagen issued a preliminary earnings report announcing it will take a €16.9 billion loss for the diesel crisis resulting in an after tax loss of €1.36 billion for 2015.⁴⁹

The impending recall and associated expenses for Volkswagen, as well as the economic impact of the emissions cheating scandal will have a long-lasting impact on Volkswagen. The company set out to deceive regulators, cheat emissions tests, illegally sold TDI cars to unknowing customers, consequently hurting the company's chances at winning over the diesel market share. Unlike the Toyota case, this is an intentional circumvention of regulations successfully carried out over the span of 8 years. These cars emitted as much as 35-40x the limit of harmful pollutants, specifically nitrous oxide (NOx). If the EPA's fines imposed on Toyota are any indication of what is to come for Volkswagen, the outlook is not good. It is important to note that Volkswagen's violation of federal law and public deceit is dissimilar to Toyota's recall scandal because Volkswagen did not immediately endanger any lives. However, they are polluting the planet at a much higher rate than legally allowed. Senator Bill Nelson made a statement on September 22, 2015 appealing to people's moral sense of right and wrong "Has the

⁴⁹ Mays, Kelsey. "Volkswagen Diesel Crisis: Timeline of Events." Cars.com. N.p., 23 Sept. 2015. Web. 25 Apr. 2016.

corporate culture in what is an automobile society shrunk so low that we can't be upfront when our products are defective or when we are trying to gain competitive advantage?"⁵⁰

Litigation and Fines

Volkswagen is facing similar litigation suits that Toyota dealt with and the list of those recognized by Volkswagen in their 3rd Quarter Interim Report is shown in Appendix IV. The main difference is that instead of dealing with the NHTSA imposing fines, Volkswagen is facing the EPA, a much stronger governmental entity. In addition to the EPA, the US Department of Justice and civil class action suits are being brought against Volkswagen. While Volkswagen's illegal actions did not harm any individuals like Toyota did, their transgressions come at a time when climate change is a primary concern of the public and so the governmental agencies representing the public interests are sure to crack down on Volkswagen.

Civil Class Action for Loss of Value

Just as the sudden unintended acceleration scandal for Toyota led to a lawsuit regarding loss of value for the affected car models, the "dieselgate" has created plenty of class action suits for diminished value to their cars. Surprisingly, after the EPA announced Volkswagen's transgressions on Friday, September 18, hours later the first case against Volkswagen for diminished value was filed in San Francisco.⁵¹ Kelley Blue Book estimates that prices for used Volkswagen diesels have fallen about 13% since the

⁵⁰ Spector, Mike, and Yoko Kubota. "Volkswagen, Audi Halt Sales of 3.0-Liter Diesel 2013-2016 Models." WSJ. N.p., 4 Nov. 2015. Web. 25 Apr. 2016.

⁵¹ Isidore, Chris. "Volkswagen Faces 34 Federal Lawsuits in Emission Scandal." CNNMoney. Cable News Network, 23 Sept. 2015. Web. 6 Apr. 2016.

scandal broke as of October 12, 2015.⁵² The cars on average sell for \$28,000 so would decrease the average resale value to about \$24,000.⁵³ This is not the end of the economic damages for the TDI owners, because it extends to their probable decrease in fuel performance and consequent increase in fuel costs once the fix is put in place. The decrease in resale value are especially frustrating for TDI owners because at the time of their purchase, they paid a premium for the diesel model over its non diesel gas counterparts for better fuel economy.

Civil Class Action for Fraud

On Feb 24, 2016 attorneys filed a class action charging Volkswagen with widespread fraud in marketing its vehicles in the US. It pulls customers from over 500 other lawsuits and consolidates them into the case being made in the US District Court of California.⁵⁴ While cheating on its emissions tests, Volkswagen spent huge amounts on advertising its “clean diesel” technology, blatantly lying to customers. The suit is still in its early phases and no reasonable estimate can be made yet.

Federal Trade Commission on False Advertising

On Tuesday, March 29, 2016, the Federal Trade Commission, the federal agency established in 1914 to protect free and fair competition in the marketplace, filed a complaint in federal court against Volkswagen charging that they violated the FTC Act of 1913 that outlaws unfair means of competition. Despite extensively marketing their diesel engine vehicles as “clean diesel”, Volkswagen’s TDI’s emit as much as 40x the legal limit of NOx. The FTC seeks to compensate the Volkswagen customers deceived by

⁵² Hirsch, Jerry. "Lawsuit Seeks Volkswagen Buyback of Emissions-cheating Diesels in California." Los Angeles Times. Los Angeles Times, 12 Oct. 2015. Web. 6 Apr. 2016.

⁵³ "FTC Charges Volkswagen Deceived Consumers with Its "Clean Diesel" Campaign." Federal Trade Commission. N.p., 29 Mar. 2016. Web. 25 Apr. 2016.

⁵⁴ Boston, William. "Class-Action Suit Filed Against Volkswagen in U.S. Court." WSJ. N.p., 24 Feb. 2016. Web. 6 Apr. 2016.

Volkswagen's false advertising, claiming "billions of dollars in injury" without citing a specific number.⁵⁵ Volkswagen used the claim that its clean diesel cars reduced NOx emissions by 90% to advertise its cars to customers when in reality, they increased NOx emissions by up to 4,000%.⁵⁶ Additionally, their advertising allowed them to gain 70% of nascent diesel sales in the US.⁵⁷ They are seeking at least \$15 billion in damages to compensate American consumers.⁵⁸

Houston Files for Spewing Dangerous Chemicals

Customers aren't the only ones upset, as lawsuits against the German automobile manufacturer reach 100s of cases filed. The city of Houston, Texas is suing Volkswagen for \$100 million as of September 30, 2015, claiming that Volkswagen's emissions cheat allowed the automaker's cars to spew dangerous chemicals into the air, hindering Houston's attempts at cleaning up their air.⁵⁹ Already, Houston's air quality is below national standards, and Volkswagen's lying on emissions tests enabled those cars to pollute the air even more. This case is important as the first of its kind filed by state's attorneys and was the beginning of an avalanche of state cases to be thrown at Volkswagen. If Houston wins its case, led by Vince Ryan, the county attorney of Harris County and the court satisfies Ryan's suit in full, it would cost Volkswagen over \$8 billion, according to Fortune's calculations accounting for all state suits filed.⁶⁰

55 Shepardson, David. "U.S. FTC Sues Volkswagen over Diesel Advertising Claims." Reuters. Thomson Reuters, 29 Mar. 2016. Web. 6 Apr. 2016.

56 "FTC Charges Volkswagen Deceived Consumers with Its "Clean Diesel" Campaign." Federal Trade Commission. N.p., 29 Mar. 2016. Web. 25 Apr. 2016.

57 Boston, William. "Class-Action Suit Filed Against Volkswagen in U.S. Court." WSJ. N.p., 24 Feb. 2016. Web. 6 Apr. 2016.

58 "Federal Trade Commission Suing Volkswagen for False Advertising." Land Line Magazine. N.p., 5 Apr. 2016. Web. 14 Apr. 2016.

59 Watters, Jackie. "Houston Sues Volkswagen for \$100 Million over Faulty Emission Tests." CNNMoney. Cable News Network, 30 Sept. 2015. Web. 6 Apr. 2016.

60 Smith, Geoffrey. "The Avalanche Begins: Houston State Attorney Sues Volkswagen for \$100 Million." Fortune. N.p., 29 Sept. 2015. Web. 6 Apr. 2016.

Department of Justice Civil for Clean Air Act violation

The EPA and Department of Justice together filed suit against Volkswagen for their violation of the Clean Air Act (CAA) on January 4, 2016 for violations from approximately 584,000 vehicles. This is the largest potential penalty from litigation Volkswagen will face. It is estimated that Volkswagen has caused 16-94 deaths over the last 7 years, in addition to producing more pollution than tolerable by the CAA.⁶¹ The Department of Justice and EPA seek to assess a penalty against Volkswagen to ensure this type of behavior is deemed unacceptable and will be deterred for years to come. Pursuant to the CAA, Volkswagen is liable for up to \$37,500 per car and \$37,500 per day of violation and \$3,750 for each “defeat device” installed.⁶² The US Department of Justice is suing for up to \$48 billion in damages, and at minimum \$18 billion and maximum \$90 billion.⁶³⁶⁴ Volkswagen has almost no defense to the civil suit since the only proof the plaintiff must make is that the cheating in fact happened. The automaker will likely try to negotiate the total charges by arguing that the maximum penalty would cripple the company and lead to massive layoffs. Interesting that the company is trying to argue that it is too big to fail as its only defense.

Department of Justice Criminal Probe on Lying to Government on CAA

Compliance (Fraud)

Pursuing a civil case against Volkswagen does not preclude the Department of Justice from also charging Volkswagen criminally, and though it remains to be filed, an

61 "U.S. Government Sues Volkswagen over Emissions-cheating Software in Diesel Cars." Timesfreepress.com. N.p., 4 Jan. 2016. Web. 6 Apr. 2016.

62 "The US Department of Justice Is Suing Volkswagen for Tens of Billions of Dollars for Cheating." VICE News. N.p., 6 Jan. 2016. Web. 6 Apr. 2016.

63 Edwards, Julia, and Georgina Prodham. "Volkswagen Faces Billions in Fines as U.S. Sues for Environmental Violations." Reuters. Thomson Reuters, 05 Jan. 2016. Web. 6 Apr. 2016.

64 Mcgoogan, Cara. "Volkswagen Could Face £61 Billion Fine in US after Emissions Scandal (Wired UK)." Wired UK. N.p., 5 Jan. 2016. Web. 6 Apr. 2016.

investigation has begun as of September 21, 2015.⁶⁵ The CAA authorizes criminal prosecution for making a false statement in an application to the EPA and for tampering with any device to measure emissions. Guilty as charged, your honor, we may expect to be hearing from Volkswagen in the coming months and years. Being as they designed the software to beat the emissions tests, it is hard to find a defense for Volkswagen. The lie that the company made to the EPA about their cars being EPA certifiable is the fraud Volkswagen committed and being investigated for. Though no charges have been made yet, Volkswagen can expect criminal fines based on its profits from the violations, or losses suffered by the victims.⁶⁶ Especially since the cars may not perform anywhere close to what Volkswagen advertised after they are fixed, the losses can be substantial, but no estimate is available as the charges have not been filed. Not only, that, but jail time may be in the future for some Volkswagen employees. It almost seems Volkswagen is scapegoating a small group of engineers while stating upper management knew nothing about the wrongdoing.⁶⁷

Bank Fraud Law Violations

A recent lawsuit brought is one by the Department of Justice as of March 8th, 2016. They are coming after Volkswagen for violations of the Financial Institutions Reform, Recovery and Enforcement Act (FIRREA), an act used by the Obama administration to investigate big banks in the wake of the 2008 financial crisis. This law allows investigators to look back 10 years into the Volkswagen bank, twice as long as

65 Zhang, Benjamin. "The US Government Is Launching a Criminal Investigation into Volkswagen's Falsified Emissions Figures." Business Insider. Business Insider, Inc, 21 Sept. 2015. Web. 6 Apr. 2016.

66 Henning, Peter J. "The Potential Criminal Consequences for Volkswagen." The New York Times. The New York Times, 24 Sept. 2015. Web. 6 Apr. 2016.

67 Ewing, Jack, and Graham Bowley. "The Engineering of Volkswagen's Aggressive Ambition." The New York Times. The New York Times, 13 Dec. 2015. Web. 6 Apr. 2016.

many other fraud statutes, enabling investigators to attack and penalize Volkswagen for all the years of its inappropriate scandal. US prosecutors will use FIRREA to investigate whether lenders to the Volkswagen bank were harmed and to penalize Volkswagen bank for tax credits issued for their clean diesel.⁶⁸ There is no estimation for damages as of yet.

Class Action for Investors Loss in Share Value

Not seen in Toyota's case is the class action lawsuit over fraudulent reporting of financially material events in a reasonably timely manner. Investors from 14 countries joined a case beginning in March, which began in the German regional court of Braunschweig on October 1, 2015 including the giant pension fund for government employees in California, the California Public Employee's Retirement System (CalPERS).⁶⁹ They are seeking damages of \$3.57 billion for the way the Volkswagen group handled the emissions scandal, costing investors hugely.⁷⁰ The law firm TILP is seeking the money for failing to meet its legal requirements of informing the markets that something was not working with their diesel technologies, effectively defrauding investors. If the information was made public, investors could have decided to not buy the stock or purchase it at a lower price.

Stock and Economic Impact

"Dieselgate" adversely impacted the economic growth, market value and stock price of Volkswagen, VLKAY on the NYSE. Similar to Toyota's taking a charge against

68 "US to Employ Bank Fraud Law in Volkswagen Emissions Probe." DW.COM. N.p., 8 Mar. 2016. Web. 25 Apr. 2016.

69 "Volkswagen Exhaust Scandal: First Claim Filed through TILP Lawyers." Dgap.de. N.p., 1 Oct. 2015. Web. 6 Apr. 2016.

70 "CalPERS and Other Big Investors Sue Volkswagen for \$3.57 Billion." Los Angeles Times. Los Angeles Times, 15 Mar. 2016. Web. 6 Apr. 2016.

earnings to account for potential recall costs, Volkswagen announced on September 22, 2015 it would take a €6.7 billion charge against 3rd quarter earnings of 2015 to begin to account for recall costs.⁷¹ Consequently, this charge against earnings led to a third quarter loss of €1.7 billion.⁷² This charge is by no means a be all end all, as charges remain to be seen from the recall, litigation and other fines and Volkswagen CEO Matthias Müller rather sheepishly suggested the company may need more. As of April 22, 2016, Müller was proved correct as Volkswagen upped the charge for 2015 to €16.9 billion seen in Update. Volkswagen will have to engage in massive cost saving reductions in order to stay afloat in the coming years. Additionally, Credit Suisse, a Swiss based global financial services company, estimates the total scandal cost could approach \$87 billion, with more conservative estimates around \$25 billion, roughly 3.5 times Volkswagen's recall fund.⁷³ Credit Suisse considered the costs of the recall, reimbursing owners for loss in value, and settling civil and criminal court cases, believing the biggest cost will come from the recall cost to repair the vehicles and compensate the owners for loss in value, totaling around \$37 billion.⁷⁴

Halt Sales-Car Sales Leader

As of July 2015, before the scandal broke, Volkswagen was the global leader in car sales and had just taken over Toyota's number one spot.⁷⁵ Once the scandal broke, and car sales were suspended for the affected vehicles, their ranking as number one did not stand a chance. Not helping the precarious scenario Volkswagen is in is that in 2014,

71 Smith, Geoffrey. "Volkswagen CEO's Future Is in Doubt after \$7.3 Billion Hit." *Fortune* Volkswagen CEOs Future Is in Doubt after 73 Billion Hit Comments. N.p., 21 Sept. 2015. Web. 6 Apr. 2016.

72 "Volkswagen Scandal...in Two Minutes." *CNNMoney*. Cable News Network, 25 Nov. 2015. Web. 25 Apr. 2016.

73 Petroff, Alanna. "Volkswagen Scandal May Cost More than the BP Oil Disaster." *CNNMoney*. Cable News Network, 2 Oct. 2015. Web. 6 Apr. 2016.

74 Petroff, Alanna. "Volkswagen Scandal May Cost More than the BP Oil Disaster." *CNNMoney*. Cable News Network, 2 Oct. 2015. Web. 6 Apr. 2016.

75 Harrison, Virginia. "Volkswagen Overtakes Toyota to Become Biggest Carmaker." *CNNMoney*. Cable News Network, 28 July 2015. Web. 6 Apr. 2016.

its diesel car sales made up 22% of its total sales. In August 2015 the month before the scandal broke, diesel sales accounted for 23% of total car sales.⁷⁶ Not surprisingly, halting the sale of diesels can have a profound impact on sales for Volkswagen, usually accounting for almost a quarter of total annual sales. Consequently, Volkswagen has posted consecutive losses since November ending the year with 9.93 million cars sold.⁷⁷ After the first full month after the scandal reached the media, global sales decreased 3.5% from the previous year.⁷⁸

Specifically in the United States, Volkswagen responded to the EPA's publication of the scandal by first halting sales of its 4-cylinder diesel cars, the diesel A3 and the certified pre-owned 4-cylinder diesel cars on September 21, 2015. After November 2 when the EPA announced illegal defeat devices in more Volkswagen cars, there were stop sale orders issued for those affected cars as well.⁷⁹ All cars affected by stop sale orders can be found in Appendix IX. It is estimated that the automobile industry experienced a 1.4% sales increase in November 2015, but Volkswagen faced a drop of 16% compared to the previous year, while Volkswagen branded cars specifically fell 25%.⁸⁰ Looking at the chart in Appendix VI, Volkswagen sales in the US slowed down tremendously since the stop sale orders. From September through the end of March, sales have decreased 10% and from November to March, decreased 14%.

76 Voelcker, John. "Volkswagen Diesel Emissions Scandal: What You Need to Know in 10 Questions (updated)." Green Car Reports. N.p., 17 Mar. 2016. Web. 6 Apr. 2016.

77 "Releases : Volkswagen Media Centre." Volkswagen Media Centre. N.p., n.d. Web. 20 Apr. 2016.

78 "Volkswagen Scandal...in Two Minutes." CNNMoney. Cable News Network, 25 Nov. 2015. Web. 6 Apr. 2016.

79 Mays, Kelsey. "Volkswagen Diesel Crisis: Timeline of Events." Cars.com. N.p., 23 Sept. 2015. Web. 25 Apr. 2016.

80 Vlasic, Bill. "While U.S. Car Sales Jump, Volkswagen's Plunge." The New York Times. The New York Times, 01 Dec. 2015. Web. 6 Apr. 2016.

Stock & Market Share

Volkswagen stock in the US is traded over the counter in the United States under the symbol VLKAY, and the shares' value follows the economic implications of the recall timeline as seen in Appendix VIII. The American Depositary Receipts are valued at 1/5th the shares traded overseas as a way for trading to occur in the states for the global company.⁸¹ The major correlation is seen in the days after the EPA released the news of the scandal. Shares in the US dropped a tremendous 30% the Tuesday after the scandal was exposed the previous Friday. That's a drop of almost \$28 billion of capital for Volkswagen in America in two days. Its shares overseas also fell tremendously over those two trading days as seen in the appendix, falling about 31% on the Frankfurt Stock Exchange (VOW:ETR). The company went on that day to announce that the scandal would cut deeply into the profits of that year.⁸² This reaction includes responses to both the scandal and the stop sales order for the first wave of diesel cars installed with defeat devices. When the second wave of cars installed with defeat devices were publicized, the effect in trading was not as extreme as the first wave, but from November 2nd to November 3rd, shares fell in value about \$1.51.

Stock Analyst Reports

J.P. Morgan has made several analyst reports available to the public discussing their valuation of Volkswagen's VOW3 GR stock, its Frankfurt based stock. Early on, after the scandal broke in September, it made a report on September 23, 2015 downgrading the stock's rating from overweight to neutral, indicating its returns were

⁸¹ Stephenson, Josiah. "What Is the Difference between All the Stock Symbols Volkswagen Trades Under?" Reddit. N.p., 30 Sept. 2015. Web. 25 Apr. 2016.

⁸² Ewing, Jack. "The New York Times." Volkswagen Says 11 Million Cars Worldwide Are Affected in Diesel Deception. N.p., 22 Sept. 2015. Web. 6 Apr. 2016.

decreasing from above average market return to in line with the average market return. Its September 23rd price was at €108.79, well below its price target of €179. Prior to the scandal, it was expected the FY2015 EPS would be €19.64 but after it decreased to €10.35. A more detailed chart of the VOW's stock is in Appendix VII. In the report, it also drew light to the charge against 3rd quarter earnings Volkswagen made, indicating the €6.7 (\$7.2) billion charge only would cover the recall expenses per car. It did not include the expenses that would be associated to litigation. Therefore, its charge was woefully underestimated. Additionally, it is expected the €590 charge per affected car of the 11 million car recall based purely on raw materials and labor might be low and difficult to estimate. For those reasons, it can be expected a revised version of the Q3 of the FY2015 will have a higher charge against earnings. Unfortunately, this report cannot be made with much confidence due to the turmoil to be dealt with in the following months regarding the diesel recall.

JP Morgan released a market analyst report of the automobile industry with a section dedicated to Volkswagen's troubles on January 7, 2016 with forecasted reports. Still, the reports cannot be made confidently due to the lack of clarity with which the recall and litigation expenses are estimated. Again, the report indicates a lowered EPS for both FY2015 and FY2016 as more information comes to light on the recall. As a result, the stock is still valued as neutral by JP Morgan with a price of €121.37 and a lowered target of €169 on January 5th. They expect earnings to remain flat or slightly down for FY2016 from the prior year. They do not expect this to be a long lasting problem as they forecast revenue to be up 4.2% from FY 2016 to FY2017 after a brief 0.4% decrease from FY2015 to FY2016.

Litigation Suits Brought

Through analysis, it would seem that the announcement of massive litigation also scares investors. When the Department of Justice against Volkswagen brought the civil action for violations of the CAA on January 4, 2016, the shares dropped from \$30.10 to a low of \$26.85 by about 11%. The initial drop in share value in September can also be partially attributed to the bringing of class action lawsuits against Volkswagen. It can be expected that when the criminal investigation against Volkswagen transitions into a criminal case, the shares may also take drop in value. The litigation announcements that had little effect on stock prices received much less media attention than the Department of Justice civil case against Volkswagen for their CAA violations. Media attention does seem to drive stock prices during times of significant news, but the cheat devices news was around earlier, just to a select few that cared to find out. For that reason, I believe the stock fell from April, 2015 when Volkswagen sent a letter about an emissions related recall from almost \$50 to the \$36.31 on September 18th the day the scandal broke, before the 30% slide of stock value.

Fallout from Credit Rating Drop on Financial Services Group

Volkswagen's Financial Services is a major source of profit for Volkswagen. In the interim report for Jan-Sep, 2015 the FS unit generated operating profit of \$1.7 billion compared to the \$2.3 billion from Volkswagen brand passenger cars. There are several impacts from the scandal that will inevitably hurt the financial services piece of Volkswagen. One such impact will be the loss on the buyback of leases Volkswagen will incur when the leases, currently valued at \$21 billion, expire. Due to the loss of value in the cars, the Financial Services piece will have to absorb the loss. Another effect is the

drop in credit ratings by major credit rating agencies. Since the scandal broke in September 2015, Standard and Poor's decreased the credit rating of the financial services by one notch in October from A to A- and again in December to BBB+. These decreases in credit rating make it harder and more expensive for the Volkswagen Financial Services to take out loans to finance its customers. One more hit the Financial Services unit could take is in the loans its made to its dealers. Currently valued around \$15 billion in credit, Volkswagen could suffer losses if the dealer's cannot pay it back based on slumping sales caused by the recall.⁸³ These losses, though, are speculative and no estimate can be made for the exact losses the Financial Services unit will incur. Luckily, most of the financial services lending is done in Europe, where sales have not suffered as much in the US, though its market share in Europe still slipped from 25% to 22%.

Financial Statement Analysis

The world is still waiting for Volkswagen's 2015 Annual Report, expected on April 28th. Volkswagen as of February 5, 2016 issued an announcement stating it would be postponing its annual report for 2015. They plan on releasing the information in the second half of April.⁸⁴ Back in October, PwC said they couldn't determine whether the third quarter provisions for the scandal were sufficient and for the auditors to not give an unqualified opinion on the annual report for 2015 would raise concern with credit agencies and investors.⁸⁵ Juergen Pieper from Bankhaus Metzler in Germany says the delay is understandable due to the unknowns, but estimates the 3rd quarter provisions

83 Ewing, Jack. "Volkswagen Bank Profits May Be Endangered by Diesel Scandal." The New York Times. The New York Times, 01 Feb. 2016. Web. 6 Apr. 2016.

84 "Volkswagen Delays the Reporting of the Annual Results and the Annual General Meeting." Volkswagen Group. N.p., 5 Feb. 2016. Web. 6 Apr. 2016.

85 Rauwald, Christopher, Kartin Matussek, and Naomi Kresge. "Volkswagen Delays Earnings Amid Uncertainty on Scandal's Cost." Bloomberg.com. Bloomberg, 5 Feb. 2016. Web. 13 Apr. 2016.

need to be increased by €2to €3billion (See Update).⁸⁶ Analyst Germans Securities Trading Act requires companies to publish their annual reports four months after the end of their fiscal year, which for Volkswagen is April 31st. Volkswagen announced it expects its operating group result before special items to be “at the level of the prior year within the expected range for fiscal 2015” which was between 5.5 and 6.5%.⁸⁷

The interim report for January-September 2015 was all that was currently available that includes any information on the current recall prior to April 22nd, 2016 (See Update). With the auditor’s uncertainty that enough money was pledged to the recall clean up efforts, it is my position that the interim report should change along with the publication of the annual report. That being said, there are several specific portions of the annual report to look at, including its financial services revenue, its total earnings, and its contingent liabilities. Unlike Toyota, Volkswagen is based in Germany and is required by its participation in the EU to report using IFRS.⁸⁸ Hypothetically though, there may be situations where the reporting would be better if GAAP could be applied.

Operating Profit

The most drastic change seen in the interim report is found in its operating profit section. They admit that moving forward, these provisions are subject to estimation risk, and news articles have shown that Volkswagen may have underestimated the provision thus far. Operating profit before special items is estimated to stay at a similar rate for the annual report for 2015 as in 2014, but the operating profit will be significantly lower. The

86 Cremer, Andreas. "Volkswagen Delays 2015 Results, AGM as Scandal Effects Unclear." Reuters. Thomson Reuters, 05 Feb. 2016. Web. 13 Apr. 2016.

87 Cremer, Andreas. "Volkswagen Delays 2015 Results, AGM as Scandal Effects Unclear." Reuters. Thomson Reuters, 05 Feb. 2016. Web. 13 Apr. 2016.

88 "Germany." IFRS Adoption by Countries (n.d.): 91. PwC. PwC. Web. 29 Apr. 2016.

diesel scandal forced Volkswagen to take a charge of €6.7 billion against operating profits, mostly in cost of sales, distribution expenses and other operating income (loss). Total profit from the first three quarters of 2015 was €3.3 billion, down from €9.4 billion the previous year. Other operating income (loss) took the biggest hit from year to year, decreasing from €2 billion to a loss of €1.7 billion. Cost of sales increased from 82% of sales revenue to 84% of sales revenue partially as a consequence of the diesel scandal and special item. EPS-ordinary shares decreased by 54% in €.

Specifically for the period July-September, the differences are more telling. The basic EPS-ordinary shares decreased 159%, operating profit decreased 207% and cost of sales per sales revenue (efficiency ratio) increased from 83% to 91%. Because this is when the scandal became public knowledge, it is significantly altered by the charge to earnings.

On April 22, 2016, Volkswagen released its consolidated earnings report, indicating an operating loss of €4.1 billion.⁸⁹ This includes a €16.9 billion charge against earnings related to recall, far eclipsing its initial €6.7 billion charge. Volkswagen also did not specify in which quarter the charge would be taken, simply reporting it on a yearly basis (See Update). On April 28th, more information will be released as to how the charge is taken (See Update).

⁸⁹ “Volkswagen Reports Robust Operations in Fiscal Year 2015-Special Items Impact on Result for the Year.” *Volkswagen Group*. Volkswagen AG, 22 Apr. 2016. Web. 25 Apr. 2016.

Advisory Thesis

Due to the delay in the publication of Volkswagen's 2015 annual report, they leave a lot open to interpretation (See Update). In this section, I will use analysis from Toyota's financial reporting of their sudden unintended acceleration scandal and thoroughly researched estimates for expenses relating to Volkswagen's "dieselgate" scandal to advise on the reporting of their contingent liabilities in this critical time.

Firstly, the timing of recognition of the contingencies is an important part of attributing the liabilities to the Volkswagen reports. Due to the probability of the litigation suits, they should be recognized mostly in the period they are filed. Under US GAAP, the litigation suit must have at least a 75% of happening and winning damages from Volkswagen and IFRS requires at least a 50% chance, once the lawsuits are filed, they would fulfill both probability requirements as long as they are strong cases that Volkswagen will probably lose. Additionally, the measurement of these contingent liabilities will vary depending on using IFRS or GAAP and my estimates will show the differences in the codification and their effect on the affected line items.

3rd Quarter

In terms of revising the 3rd quarter interim report for 2015, Volkswagen should then include more provisions than just for the recall repair and servicing fees (See Update). They should also include potential contingent liabilities of the lawsuits filed in the third quarter. These include the civil class action filed for the loss in value suffered by Volkswagen diesel owners and the air pollution claims in Houston. Additionally, they need to account for the fact that their estimations for the provisions at €6.7 billion were

inadequate for just recall repair and service fees. There are estimates that this number should be increased by €2 to €3 billion. Now we know the charge is set at €16.9 billion, so even those estimates were woefully below the actual. It would seem the majority of the recall cost would come from the US market due to the more stringent regulations.

Based on available information, the civil lawsuit on loss of value can be estimated by a range. As discussed in the Volkswagen litigation section, Volkswagen cars on average have lost just under \$4,000 in value due to the 13% drop according to Kelley Blue Book. By multiplying the loss in value per car by the approximate 580,000 affected cars, the damages for loss in value are around \$2.1 billion. It is possible that due to the malicious way Volkswagen lied and deceived the consumers for the 7-year period, punitive damages may also be applied raising the estimate to as high as \$4 billion.⁹⁰

For the Houston lawsuit, when the action was brought in late September 2015, the estimates vary. Houston is suing Volkswagen for the 6,000 cars in violation of EPA standards on the roads in Houston. State code stipulates a rate of \$50 to \$25,000 per violation per day that a car is in use.⁹¹ These penalties can add up to an estimated \$100 million liability on Volkswagen. Assuming the court grants Houston a victory in the case against Volkswagen, it is estimated that when other states and counties follow suit, Volkswagen will be at risk of \$8 billion in litigation liability.

FY2015 Annual Report

In attributing its 4th quarter results for FY 2015 for October through December, Volkswagen will have to be mindful of the multiple lawsuits and ongoing recall expenses

⁹⁰ Barrett, Paul. "Trying to Put a Price Tag on Volkswagen's Emission-Fraud Scandal." Insurance Journal News. N.p., 22 Sept. 2015. Web. 13 Apr. 2016.

⁹¹ McGaughy, Lauren. "Texas Sues Volkswagen, Audi over Emissions Cheating." Chron. Houston Chronicle, 8 Oct. 2015. Web. 25 Apr. 2016.

they will incur. Estimates as of October 19, 2015 by Sanford C. Bernstein Ltd that recall costs will total at least €10 billion for FY2015 with total recall expenses reaching anywhere from €15 to €20 billion in total.⁹² Now we know the recall expenses are being reported at €16.9 billion according to Volkswagen for FY2015, so the Sanford estimates were somewhat appropriate, but still short of the actual. In late November 2015 Volkswagen CEO Matthias Müller called the repairs in Europe “technically and financially manageable.”⁹³ He was underemphasizing the scandal’s effect though, as the company is still only just beginning to see the financial impact of the scandal.

FY 2016 Annual Report

CEO Matthias Müller’s comments about the major recall cost coming from the US is important for the recall expense estimates because when the CARB rejected Volkswagen’s November recall plan in January, 2016, the idea of a massive car buyback plan seemed cheaper than an actual fix. According to Bernstein’s estimates that recall expenses will reach at its highest €20 billion, it would make sense to instead revert to a buyback plan that would cost from \$7.3 to \$9.4 billion for its 580,000 vehicles in the US according to estimates from Kelley Blue Book and Bloomberg Intelligence. This proved to be true, as the deal as of April 21, 2015 indicates Volkswagen will buy back at least 480,000 of the diesel cars. So, instead of increasing the provisions for recall related expenses, just reallocating that money plus some for the buyback program in the states might be more financially advantageous.

92 Plungis, Jeff, and Alan Katz. "VW's Emissions Retrofit May Be Among Costliest Recalls Ever." Bloomberg.com. Bloomberg, 22 Oct. 2015. Web. 25 Apr. 2016.

93 Ramsey, Jonathon. "Autoblog Sitemap." Autoblog. N.p., 30 Nov. 2015. Web. 25 Apr. 2016.

Several lawsuits were brought in 2016 that will impact the FY2016 Annual Report. These include the civil action for Volkswagen's fraudulent marketing campaign, the Federal Trade Commission's claim for false advertising, the Department of Justice's civil filing for Clean Air Act violations, and a civil class action for loss of share value from the recall scandal. Additionally, while not filed yet, it is expected the criminal investigation against Volkswagen by the Department of Justice will come to fruition in 2016. These lawsuits, while inestimable by Volkswagen can be estimated by a range in some cases by multiple sources and for my purposes is sufficient enough to take liberties on disclosing certain contingent liabilities and their potential costs to Volkswagen.

Two lawsuits are inestimable at this point according to reports. One is the fraudulent marketing case brought as a civil class action against Volkswagen for their claims of their diesel cars being "clean diesel". Another is the US Department of Justice investigating Volkswagen for bank fraud under the FIRREA. As neither of these cases have estimable penalties, I cannot include them in a projected FY2016, but they would have to be disclosed under either IFRS or GAAP.

Going off the fraudulent investigations, one that is somewhat more estimable is the suit brought by the Federal Trade Commission against Volkswagen for fraudulent marketing and unfair practice in the marketplace. The FTC is suing Volkswagen for at minimum \$15billion and Volkswagen disclosed the suit briefly in their FY 2015 annual report. However, the \$15 billion is not a guarantee, as Volkswagen's legal counsel will work hard to minimize the damages. In FY2016, as more information regarding the suit rises, a more specific disclosure will be made, though likely will be claimed as inestimable by Volkswagen.

The Department of Justice by the end of the diesel scandal will have filed 2 suits against Volkswagen, one civil and one criminal. Their civil suit is regarding Volkswagen's Clean Air Act violations. The Department of Justice brought the suit in January 2016, and estimates have the cost ranging from a conservative \$18 billion to an unlikely \$90 billion. Under GAAP, the \$18 billion would be reported and under IFRS the mid point of \$54 billion would be reported. The fraudulent compliance under the CAA is what the Department of Justice is pursuing a criminal case against Volkswagen over. The breakdown in expenses is seen in Appendix X. The investigation began in September 2015 and it's possible that under GAAP they would not disclose the complaint until 2016 as it became more probable that a contingent liability would come from the investigation, with its higher threshold of probability. Due to the uncertainty regarding the litigation's final results, Volkswagen will likely not recognize the amounts of \$18 billion or \$54 billion, but rather will claim the lawsuit inestimable until the case is closer to its conclusion. In 2016, once both should recognize and disclose the criminal liability, estimates based on other relatable suits brought against car companies for fraudulently and criminally violating US regulations, an estimation of about \$1 billion minimum.⁹⁴

Attached is a chart in Appendix XI depicting several line items affected by the liabilities and the difference between using IFRS and GAAP. It was calculated by comparing the Q2 results from 2015 and applying those ratios to that of Q3, and adding in the charges relating to the recall contingencies including litigation expenses from the Houston lawsuit and the loss in value civil case. The projections assume no new

94 Barrett, Paul. "Trying to Put a Price Tag on Volkswagen's Emission-Fraud Scandal." Insurance Journal News. N.p., 22 Sept. 2015. Web. 13 Apr. 2016.

contingencies in Q4 and used updated sales numbers from the April 22nd, 2016 Earnings Report (See Update).

Conclusion

Moving forward, the convergence of IFRS and GAAP is crucial to make international business reporting easier and more standardized. As seen in the breakdown of disclosure, reporting and measurement of the contingent liabilities by both Toyota and Volkswagen, the amounts and timing of disclosure change depending on the standards used. When comparing one company using different standards from another, stakeholders will miss crucial information in one that they may get in another. For fairness and standardization, the convergence should continue as planned according to the Norwalk agreement and once completed, will provide a more fluid business environment with fewer tedious adjustments for consolidating companies' financials and more.

The best method for reporting for stakeholders is likely under IFRS, as the sooner a contingent liability is reported, the better the stock price will stabilize. If the liability is probable to happen above 75%, both IFRS and GAAP can be applied for reporting, then we choose which is best under the measurement factor of the codification. For measurement, GAAP uses the lower amount of the range, and is better for the company to report to encourage investors with a lower contingent liability reported.

Toyota uses GAAP accounting and Volkswagen uses IFRS. IFRS is more principle based while GAAP has more specific rules in place for the various reporting standards. Not surprisingly, both have positive aspects; therefore, the best solution would

be a combination of both codifications, at least in the reporting of contingent liabilities. Under IFRS, the financial statements would include a consolidated income statement for the fiscal year 2015 operating loss of €11.5 billion and GAAP has an operating loss of €6.0 billion as seen in Appendix XI. The difference is due to the IFRS measuring contingent liabilities at the midpoint of the range while GAAP uses the minimum. In recognizing the liability, a company should favor IFRS because it allows a company to report the liability sooner, which is encouraging to investors.

Two of the largest automobile manufacturers had massive record setting scandals and their accounting methods reported differences of billions of dollars. These differences are eventually sorted out over several years; however, the short-term effects vary based on which accounting method they choose. While giant automotive companies will endure and survive these scandals, the consumers and shareholders suffer in the short term to varying degrees, depending on the company use of US GAAP or IFRS. In efforts to protect the consumers and shareholders, a uniform application of rules should be set so as not to hurt one class of consumers or shareholders. As the Norwalk Agreement continues to converge the two sets of codification, the application of certain parts of IFRS and GAAP to account for contingent liabilities as explained throughout this thesis would make for the best uniform standards.

Update

On April 22, 2016, Volkswagen released their earnings for FY2015, and shortly after on April 28, 2016 the automotive giant released its annual report for 2015. In the

report, it showed how it would account for its addition of charges against earnings for the diesel emissions scandal. It increased its yearly charge from €6.7 billion to €16.9 billion and dumped the increase in the 4th quarter instead of revising their previously published 3rd quarter results.

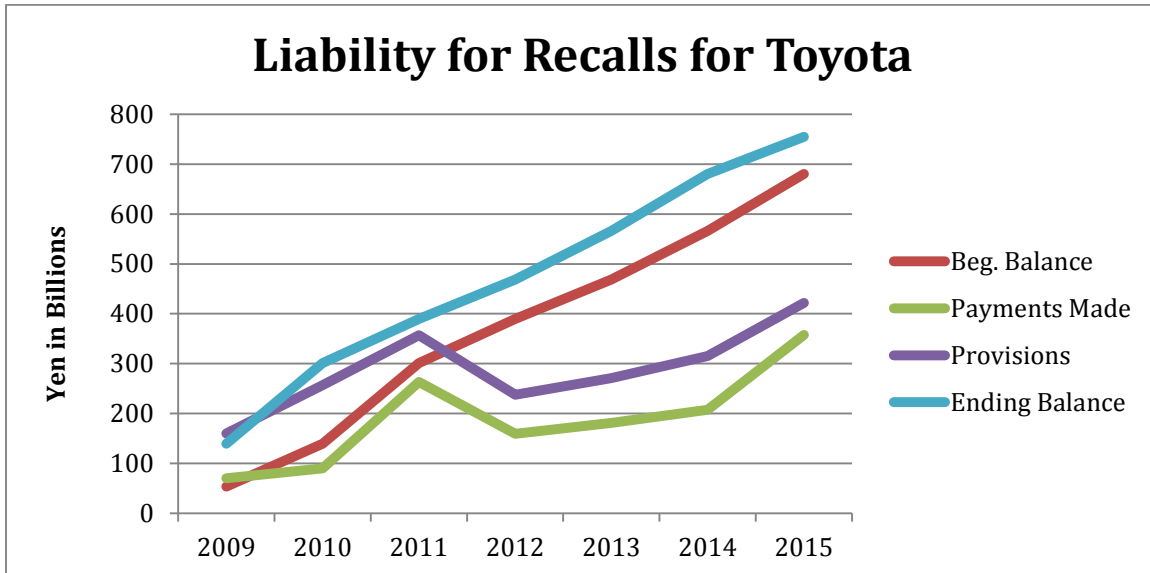
The majority of the work on this thesis was completed before April 22, before any news on Volkswagen's updated charge against earnings was released. This report is based on research leading to a projected income statement for Volkswagen, which lines up closely with their FY2015 reported amounts. The projections include extra charges for estimates for damages from lawsuits filed in FY2015. The chart in Appendix XI shows the reported income statement for FY 2015 as well as the projected numbers using information from April 22, 2016.

I.

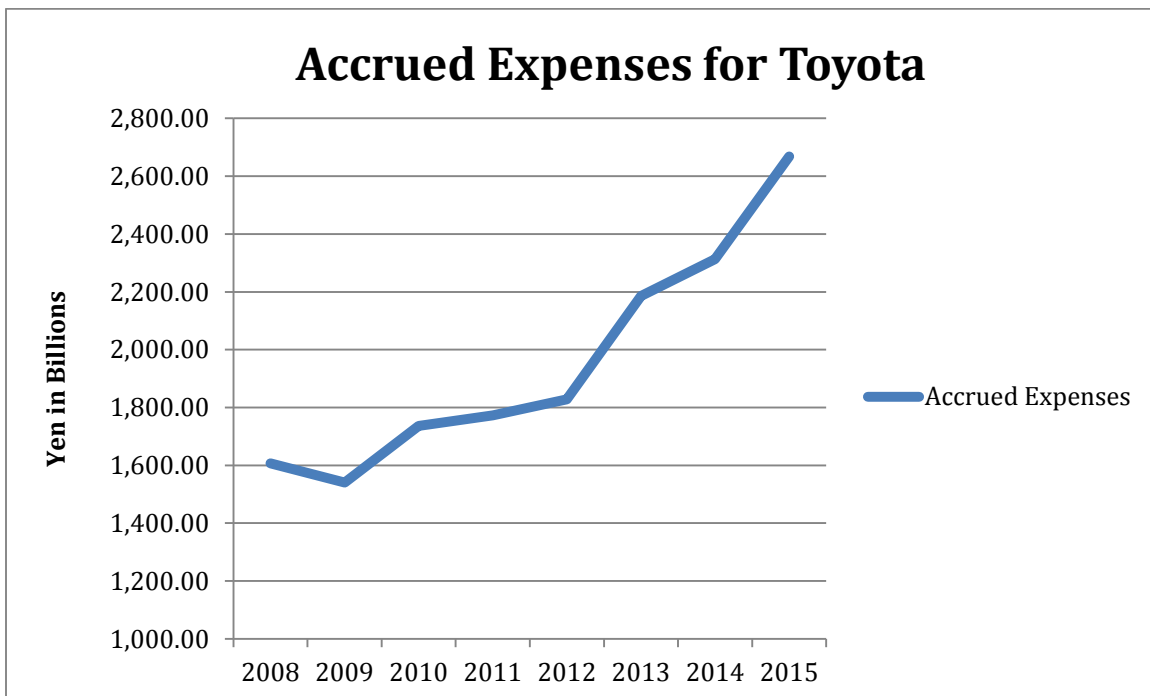
[illegible]

General: This chart consolidates financial data from the warranty tables from Toyota's 20-F reports from the years 2008 to 2015 to show trends and the staggering impact the recall years have on the liabilities for recalls. It also shows accrued expenses trends and other information pertinent to the recalls. It splits the liabilities into for recall specific liabilities and for product warranties as well as combining both of those in liabilities for quality assurance.

II. General: This chart shows the trend of liabilities for recalls and the associated transactions and balances, showing a steep increase in provisions and payments made for the recall years of 2009 and 2010.



III. General: This chart shows the accrued expenses rise over time for Toyota. Notable is the spike in accrued expenses over 2009 to 2010 as a result of the recall expenses being thrown into the accrued expenses line item.



IV. General: This screen shot is a portion of the Volkswagen Q3 Interim Report in the Results of Operations, Financial Position and Net Assets discussing the various litigation battles Volkswagen will be facing as a result of the diesel scandal.

remedial actions, to coordinate them with the competent authorities and to obtain approval for them. Volkswagen AG is examining the legal situation for potential claims in the relevant markets. It is also currently unclear whether customers will be faced with a reduction in the value of or adverse changes to their vehicles following the planned remedial actions. As a result, it is too early to estimate the prospect of success for any lawsuit.

3. Lawsuits filed by investors worldwide (excluding the USA/Canada)
Investors have announced that they are examining the possibility of pursuing claims for damages against Volkswagen AG due to the movements in Volkswagen AG's share price following publication of the EPA's notice of violation. In October, Volkswagen AG had already been served with three lawsuits from private investors that claim damages due to alleged misconduct in communications surrounding the emissions issue. An application was simultaneously made to instigate proceedings in accordance with the Kapitalanlage-Musterverfahrensgesetz (Capital Markets Model Case Act). Volkswagen is of the opinion that it properly complied with its capital market obligations.

4. USA/Canada

The US and Canadian authorities have launched investigations. Volkswagen is cooperating with the authorities, and has acknowledged irregularities in the US emissions concepts. There are five distinct areas.

a. Civil and administrative investigations by the EPA and US Department of Justice (DoJ)/Environmental Canada
The EPA is currently investigating violations of US environmental law in connection with the circumvention of emissions standards. It is likely that Environmental Canada will also open an investigation. Due to the complexity of the individual factors and the large number of open questions, it is currently impossible to estimate potential financial penalties due to the ongoing uncertainty.

b. Criminal investigations by the US Department of Justice (DoJ)
The DoJ has also opened a criminal investigation. This focuses on allegations that various federal law criminal offenses were committed. It is too early in the investigation to provide a sufficiently reliable estimate of the potential financial penalties.

c. Class action lawsuits by customers in the USA and Canada

A large number of motions for leave to file class action lawsuits by affected customers have been announced, both in the USA and in Canada. Although some of these have already been served on the local companies, none have yet been served on Volkswagen AG. The claims primarily relate to compensation for material damage caused to the affected customers, and are specifically based on consumer fraud and unjust enrichment. In particular, compensation for alleged loss of value is being claimed or has been announced in addition to the performance of remedial actions. Claims for punitive damages are also being asserted. It will only be possible to reliably estimate the outcome of these proceedings once the complaints have been served and the alleged circumstances and legal arguments presented in them have been thoroughly examined and assessed.

d. Investigations by the attorney generals of various US states

The attorney generals are investigating whether Volkswagen Group of America inappropriately advertised clean diesels and whether customers were misled into purchasing Volkswagen diesel vehicles as a result. It is not yet possible to reliably estimate the conceivable consequences since these investigations are also still in their early stages.

e. Class action lawsuits by investors

In addition to product-related class action lawsuits, it is possible that purchasers of American Depositary Receipts (ADRs) could potentially file claims for damages in the USA and Canada against Volkswagen AG and its subsidiaries due to alleged price losses. Although according to publicly available information a small number of these class action lawsuits have been filed with US courts to date, Volkswagen has not yet been served with these. It will only be possible to reliably estimate the outcome of these proceedings once the complaints have been served and the alleged circumstances and legal arguments presented in them have been thoroughly examined and assessed. Volkswagen is of the opinion that it properly complied with its capital market obligations.

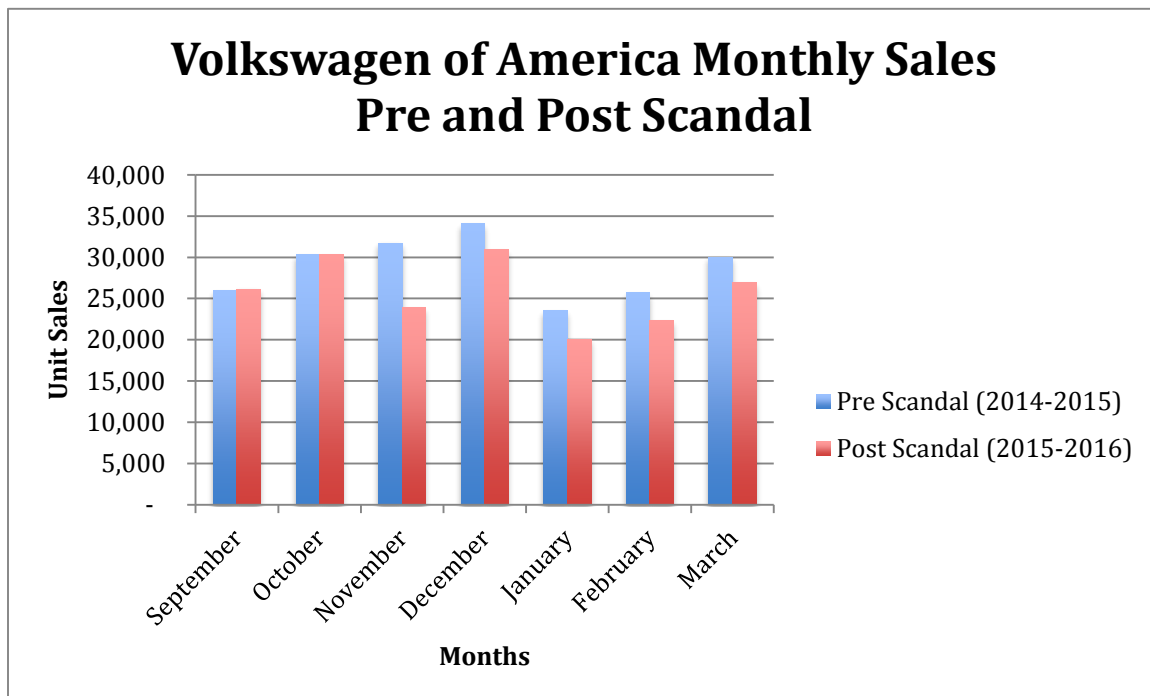
It is currently impossible to assess the legal risks connected with the diesel issue due to the early stage of the comprehensive and exhaustive investigations, the complexity of the individual factors and the large number of open questions. As a consequence, corresponding provisions have not been recognized in the interim financial statements.

V. General: From the Volkswagen Interim Q3 Report, these are the Key Events reported, drawing specific attention to the recall and funds set aside to specifically deal with it.

Key events

In the USA, the California Air Resources Board (CARB) and the Environmental Protection Agency (EPA) publicly announced that irregularities had been discovered in relation to emissions tests on Volkswagen Group diesel vehicles, and that violations of US environmental laws had occurred as a result. As the investigations stand at present, the issue affects approximately 11 million vehicles worldwide fitted with certain diesel engines. The vast majority of these are Type EA 189 Euro 5 engines. Based on current knowledge, the remedial actions will differ in scope depending on the engine variant involved. The technical solutions will cover software and in some cases hardware modifications, depending on the series and model year. Consequently, the Volkswagen Group recognized provisions for risks in the total amount of €6.7 billion in the third quarter, which were charged to operating profit. This primarily entailed recognizing provisions for field activities (service measures and recalls) in the amount of €5.3 billion, as well as impairment of assets and allocations to provisions in the amount of €1.3 billion. As far as possible, the provisions are measured based on past experience and on estimates, depending on the technical complexity of the remedial actions concerned. The expenses for allocations to provisions and impairment of assets are mainly recognized in cost of sales, distribution expenses and other operating income. Please refer to the “Litigation” section for a discussion of the legal risks associated with the diesel issue, which cannot be estimated at the current time. The ongoing investigations mean that assessment of the circumstances is subject to estimation risk. In particular, considerable financial charges may be incurred as the legal risks crystallize.

VI. General: This chart shows the effect on sales the diesel scandal had with sales information from the posted monthly sales reports on the Volkswagen website.



VII. General: This chart shows the Volkswagen stock price (VOW:ETR) in euros fluctuate in response to key events for Volkswagen.



VIII. General: This chart shows the Volkswagen stock price (VLKAY:OTC) in dollars fluctuate in response to key events for Volkswagen.



IX. General: This graphic shows the list of new and used diesel cars that Volkswagen has issued a stop sale order on in response to the scandal.

Here's a breakdown of the new and used diesel-powered models covered by the stop sales. Gasoline versions of the models below are still on sale.

New diesels:

Volkswagen

- 2015 Jetta, Golf, Golf SportWagen, Passat, Beetle, Touareg
- 2016 Touareg

Audi

- 2015 A3, Q7
- 2015-2016 A6, A7, A8L, Q5

Porsche

- 2014-2016 Cayenne

Certified pre-owned diesels:

Volkswagen:

- 2009-2015 Jetta
- 2009-2014 Jetta SportWagen
- 2010-2015 Golf
- 2015 Golf Sportwagen
- 2012-2015 Beetle and Beetle Convertible
- 2012-2015 Passat
- 2014-2015 Touareg

Audi

- 2010-2015 A3
- 2013 Q7
- 2014 A8
- 2014-2015 A6, A7, A8L, Q5, Q7
- 2016 A6, A7, A8L, Q5

Porsche

- 2014-2016 Cayenne

Source: <http://adage.com/article/cmo-strategy/vw-porsche-audi-put-diesel-sales-hold-u-s/301226/>

X. General: This is a screenshot of the Department of Justice’s lawsuit against Volkswagen over their Clean Air Act Violations, breaking down the cost per violation in detail.

- 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;

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- 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.

Source: <https://www.justice.gov/opa/file/809826/download>

XI. General: This table depicts the varying operating profits forecasted using information from Volkswagen's financial publications and expert estimates to show the differences in reporting when using GAAP vs. IFRS.

The projected quarters and years are calculated using numbers from the Q3 Interim Report, the April 22nd, 2016 Preliminary Earnings Report, FY 2015 Annual Report and litigation estimates from the Houston and loss in value lawsuits. Quarter 3 historical was listed on the Q3 Interim Report, and to project the Quarter 3 with a higher recall charge, I used ratios from Quarter 2 expenses divided by the sales revenue to calculate the regular expenses for the quarter not including recall expenses. This allowed me to multiply the ratio by the sales revenue of the Quarter 3, then I added into that the portion of the recall expense attributed to each line item again by using ratios, this time by subtracting the expected regular charge based off the Q2 ratios from the actual in Q3, then dividing the remainder by the historical recall charge of €6.7 billion. These ratios formed the basis of the projected Quarters. For under GAAP, I included litigation expenses using the minimum of the range and for IFRS I included litigation expenses at the midpoint of the range. The Houston lawsuit amounted to €90 million under US GAAP and €3.6 billion under IFRS. The loss in value suit amounted to €1.9 billion under US GAAP and €2.7 billion under IFRS. This in addition to the recent revised recall charge of €16.9 billion resulted in the new projections for Q3. Q4 was calculated using the earnings report released on 4/22/16 for the annual sales revenue. I deducted revenue from the other three known periods and that gave the Quarter 4 revenue. The other line items were calculated using the regular charge ratios calculated from the Quarter 2. Also included is the updated FY2015 income statement numbers.

I believe these projections illustrate that Volkswagen underestimated their reporting of contingent liabilities for the recall in their initial Q3 Interim Report. Their new reports as of April 22 and April 28th, 2016 show an increased contingent liability recognized, however they still underestimate by not including litigation expense, as I did in my projections. Estimates from various economists showed early on that their Q3 Interim report did not report enough of a charge against earnings, and my projections show a more appropriate amount to be charged. Volkswagen continues to underreport the scandal's impact because they are omitting litigation expense, claiming the amounts are still inestimable. I believe that these claims continue to deceive investors about the true economic impact from the dieselgate scandal. Volkswagen has since dumped the additional charges in the 4th Quarter, instead of revising the 3rd.

| VW Consolidated Income Statements | | | | | |
|-----------------------------------|------------------------------|---------------------------|-----------------------|---------------------|-----------------|
| FY 2015 | Historical | | Projected | | |
| € millions | Quarter 1 | Quarter 2 | Quarter 3 per 4/22/16 | Quarter 4 | |
| Sales Revenue | € 52,735 | € 56,041 | € 51,487 | € 53,029 | |
| Cost of Sales | -€ 42,425 | -€ 44,652 | -€ 55,422 | -€ 42,252 | |
| Gross Profit | € 10,310 | € 11,389 | -€ 3,935 | € 10,777 | |
| Distribution Expense | -€ 4,976 | -€ 5,455 | -€ 6,481 | -€ 5,162 | |
| Administrative Expense | -€ 1,815 | -€ 1,811 | -€ 1,973 | -€ 1,714 | |
| Other Operating Income/Expense | -€ 190 | -€ 631 | -€ 1,303 | -€ 597 | |
| Operating Profit | € 3,329 | € 3,492 | -€ 13,692 | € 3,304 | |
| | | | | | |
| FY 2014 vs FY 2015 Revised | Historical | | Projected | | |
| € millions | FY 2014 | FY 2015* | FY 2015 GAAP** | FY 2015 IFRS*** | |
| Sales Revenue | € 202,458 | € 213,292 | € 213,292 | € 213,292 | |
| Cost of Sales | -€ 165,934 | -€ 184,751 | -€ 186,432 | -€ 190,174 | |
| Gross Profit | € 36,524 | € 28,541 | € 26,860 | € 23,118 | |
| Distribution Expense | -€ 20,292 | -€ 22,074 | -€ 22,245 | -€ 22,627 | |
| Administrative Expense | -€ 6,841 | -€ 7,312 | -€ 7,348 | -€ 7,429 | |
| Other Operating Income/Expense | € 3,306 | -€ 2,721 | -€ 2,806 | -€ 2,994 | |
| Operating Profit | € 12,697 | -€ 3,566 | -€ 5,539 | -€ 9,931 | |
| | | | | | |
| Quarter 3 2015 Revised | Historical | | Projected | | |
| € millions | Quarter 3 per Interim Report | Quarter 3 per 4/22/16**** | Quarter 3 GAAP***** | Quarter 3 IFRS***** | |
| Sales Revenue | € 51,487 | € 51,487 | € 51,487 | € 51,487 | |
| Cost of Sales | -€ 46,721 | -€ 55,422 | -€ 57,103 | -€ 60,845 | |
| Gross Profit | € 4,766 | -€ 3,935 | -€ 5,616 | -€ 9,358 | |
| Distribution Expense | -€ 5,593 | -€ 6,481 | -€ 6,652 | -€ 7,034 | |
| Administrative Expense | -€ 1,786 | -€ 1,973 | -€ 2,009 | -€ 2,089 | |
| Other Operating Income/Expense | -€ 866 | -€ 1,303 | -€ 1,388 | -€ 1,576 | |
| Operating Profit | -€ 3,479 | -€ 13,692 | -€ 15,664 | -€ 20,057 | |
| Total Recall Charges | -€ 6,687 | -€ 16,900 | -€ 18,872 | -€ 23,265 | |
| | | | | | |
| FY2015-Reported as of 4/28/16 | Historical | | | | |
| € millions | Quarter 1 | Quarter 2 | Quarter 3 | Quarter 4 | FY 2015 |
| Sales Revenue | € 52,735 | € 56,041 | € 51,487 | € 53,030 | € 213,292 |
| Cost of Sales | -€ 42,425 | -€ 44,652 | -€ 46,721 | -€ 45,583 | -€ 179,382 |
| Gross Profit | € 10,310 | € 11,389 | € 4,766 | € 7,447 | € 33,911 |
| Distribution Expense | -€ 4,976 | -€ 5,455 | -€ 5,593 | -€ 7,491 | -€ 23,515 |
| Administrative Expense | -€ 1,815 | -€ 1,811 | -€ 1,786 | -€ 1,786 | -€ 7,197 |
| Other Operating Income/Expense | -€ 190 | -€ 631 | -€ 866 | -€ 5,580 | -€ 7,267 |
| Operating Profit | € 3,329 | € 3,492 | -€ 3,479 | -€ 7,410 | -€ 4,069 |

* The Projected FY2015 is calculated by summing the FY2015 results in the above chart, including projected values for Q3 and Q4.

** The Projected FY2015 GAAP is projected using the €16.9 billion plus the litigation expense.

*** The Projected FY2015 IFRS is projected using the €16.9 billion plus the litigation expense.

**** The recall charge attributed to this projected quarter comes from the April 22nd, 2016 announcement of the charge against earnings of €16.9 billion.

***** The recall charge attributed to this projected quarter is the €16.9 billion plus litigation expenses.

***** The recall charge attributed to this projected quarter is the €16.9 billion plus litigation expenses.

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