

U.S. NEWS

How to Figure Penalty in VW Scandal

A 1959 ad campaign for the Volkswagen Beetle urged consumers to think small.

But a lawsuit filed this past week by the U.S. Department of Justice on behalf of the Environmental Protection Agency against the car maker sends a different message: Think big, at least when it comes to the dollar figure the German



THE NUMBERS
JO CRAVEN MCGINTY

auto maker may have to pay for installing "defeat devices" to willfully violate U.S. emissions standards.

The maximum amount the regulators are seeking is unclear, and once the matter is resolved, the penalty may be less than they hope for. But the figures cited in the lawsuit add up at least \$46 billion.

So how do you put a value on the damage caused by the rigged cars?

To come up with one estimate, researchers at the Massachusetts Institute of Technology and Harvard University assessed the damage to public health caused by the vehicles' excessive emissions of nitrogen oxide.

The lawsuit alleges Volkswagen sold 580,000 rigged diesel Volkswagens, Porsches

and Audis in the U.S. since model year 2009 with illegal defeat devices.

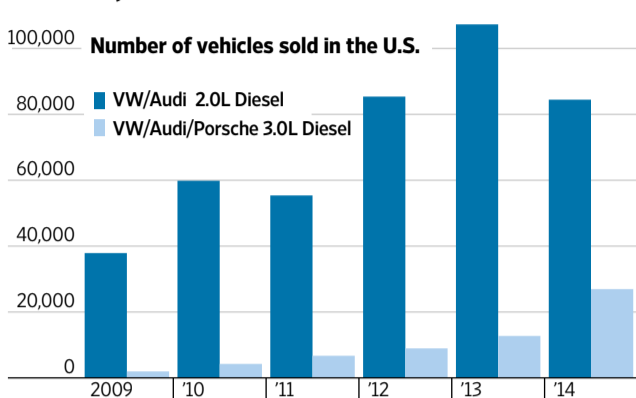
The devices allow the cars to meet strict U.S. emissions standards at testing stations, but during normal operation, the vehicles emitted up to 40 times the amount of nitrogen oxide permitted by the Clean Air Act. A spokeswoman for Volkswagen Group of America said the company is working with the EPA to bring the vehicles into compliance.

Nitrogen oxide has been linked to increased asthma attacks and respiratory and cardiovascular diseases that can cause premature death. Understanding the associated costs, the researchers said, is important for determining an adequate penalty. To calculate the effect of the excess pollution, the researchers gathered vehicle-sales figures for the affected cars; estimated their emissions; modeled the effect of the excess pollution on air quality; measured the likely health impacts; and calculated the cost to society.

"We estimated the vehicles affected were driven 40.5 billion kilometers from 2008," or about 25.2 billion miles, from 2008 when the 2009 models first hit the road to the end of 2015, said Steven Barrett, an aerospace engineering professor at MIT and lead author of the study.

Dirty Diesel

The Department of Justice is suing Volkswagen for violating U.S. emissions standards by installing 'defeat devices' in 580,000 diesel Volkswagens, Audis and Porsches sold in the U.S. beginning with model year 2009.



Note: 2015 and '16 figures are not available
Source: Environmental Protection Agency

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The researchers concluded the excess pollution emitted from the cars will cause 59 premature deaths, 31 cases of chronic bronchitis, 34 hospital admissions, 120,000 days of restricted activity—including lost work days—210,000 days with lower-respiratory problems and 33,000 days with increased use of asthma inhalers. The cost, they said, will be \$450 million.

The numbers are based on 482,000 cars initially tagged by the EPA for violating the emissions standards. Given that the government's lawsuit alleges an additional 100,000

vehicles are involved, the figures may be low, but one thing to keep in mind is the range of probable outcomes in the study is wide. The number of premature deaths could be as high as 150 or as low as 10, the researchers said, and the associated costs could be as much as \$1.2 billion or as little as \$72 million.

Nonetheless, the figures matter because to be effective, the researchers said, the penalty for breaking the rules must exceed the social cost of the violation.

"In cases where there is a high probability you won't

be caught and enforcement costs are high, you want a fine that is significantly higher than the social costs," said David Keith, a professor of applied physics and public policy at Harvard and a co-author of the report.

The EPA's default for valuing mortality risk is \$74 million. By that measure, the penalties outlined in the lawsuit would be well over the estimated mortality cost.

"From a purely environmental-health economic point of view, this penalty is way too high," said Hendrik Wolff, an environmental economist at the University of Washington in Seattle, referring to the fines outlined in the lawsuit. "Clearly, however, there are other losses. The competitors of VW have been disadvantaged, and more generally, the public trust had been breached."

Mr. Wolff notes that, in the big picture, excess emissions from the vehicles identified in the lawsuit are small, contributing up to 56,000 tons of nitrogen oxide above what is allowed.

But when it comes to discouraging bad corporate behavior, some argue, thinking big is the only way to go.

◆ Volkswagen sales drop; CEO to meet with EPA..... B3

U.S. Watch

POLITICS

Obama Vetoes Bill Changing Health Law

President Barack Obama on Friday vetoed legislation that would have gutted his signature 2010 health law, saying the Affordable Care Act is working and chiding Republicans for their repeated attempts at repeal.

"This legislation would cost millions of hard-working middle-class families the security of affordable health coverage they deserve," Mr. Obama wrote.

Mr. Obama had vowed to veto the legislation before the House cleared it this past week. The legislation marks the first time Republicans have gotten a bill overturning much of the law to his desk. It also would have stripped federal funding from Planned Parenthood Federation of America for a year.

GOP lawmakers said they were delivering on a pledge to topple a law they say has cost Americans jobs, raised health-care costs and failed to deliver on early promises such as allowing people to keep insurance plans if they liked them.

—Stephanie Armour

GUANTANAMO

Alleged Bin Laden Aide Repatriated to Kuwait

The Pentagon said it had sent a prisoner from the U.S. detention facility at Guantanamo Bay, Cuba, home to Kuwait, part of a push to whittle the prison's population down to 90 this month.

The detainee, Faez Mohammed Ahmed Al-Kandari, was cleared for transfer in September by a board with representatives from six federal agencies. His transfer follows that of two Yemeni prisoners to Ghana earlier this past week, and the prison's population is now 104, including 45 detainees approved for transfer if security conditions can be met.

When the panel approved Mr. Al-Kandari's repatriation, it said ongoing detention wasn't necessary for protection against a "continuing significant threat" to U.S. security. According to a prison profile of Mr. Al-Kandari released by WikiLeaks, he was an adviser to and confidante of Osama bin Laden and an influential religious figure for al Qaeda fighters in Afghanistan.

—Felicia Schwartz

BASEBALL

Ex-Cardinals Official Pleads Guilty to Hack

The former scouting director for the St. Louis Cardinals pleaded guilty to criminal charges in connection with an unauthorized breach of the Houston Astros' computer network, in the first known case of cyberespionage involving a professional sports team hacking into another team's database.

The Cardinals fired Chris Correa, 35, last summer, weeks after news broke that the Federal Bureau of Investigation was probing whether Cardinals employees illegally accessed the Astros' private database of player information. Major League Baseball had asked the FBI to look into the matter after information related to potential player trades was released anonymously online in 2014.

Appearing in Houston federal court, Mr. Correa pleaded guilty to five counts of unauthorized access to computer information. Each count carries a maximum sentence of five years in prison and a \$250,000 fine.

—Brian Costa and Devlin Barrett

JOBS

Continued from Page One

the year in the job market could translate into a familiar first-quarter slowdown.

Strong hiring in construction due to unseasonably warm weather is likely to reverse in January and February. The burgeoning e-commerce industry boosted employment in transportation and warehousing during the holiday season, but those jobs could prove temporary. Even the latest Star Wars film appears to have boosted employment in the movie industry by an unusually large number, a force not likely to persist.

As well, struggles under the surface remain. Consumer spending failed to accelerate in the past year despite lower gasoline prices. The manufacturing sector is contracting. And a stronger dollar and falling commodity prices have derailed two earlier drivers of the recovery: the energy industry and exports.

Economic output in the third quarter advanced an annualized 2%, about the same lackluster pace averaged throughout the expansion's first 6½ years. Readings on fourth-quarter gross domestic product won't be released until the end of this month, but many economists expect the pace of growth to slow. Forecasting firm Macroeconomic Advisers on Friday lowered its fourth-quarter forecast to a 0.5% annualized pace after new data showed businesses are allowing inventories to dwindle.

Weak fourth-quarter output stands in contrast to employers delivering the best three-month stretch of hiring of 2015. The contrast would indicate worker productivity—seen as an underlying driver of wage growth—is deteriorating.

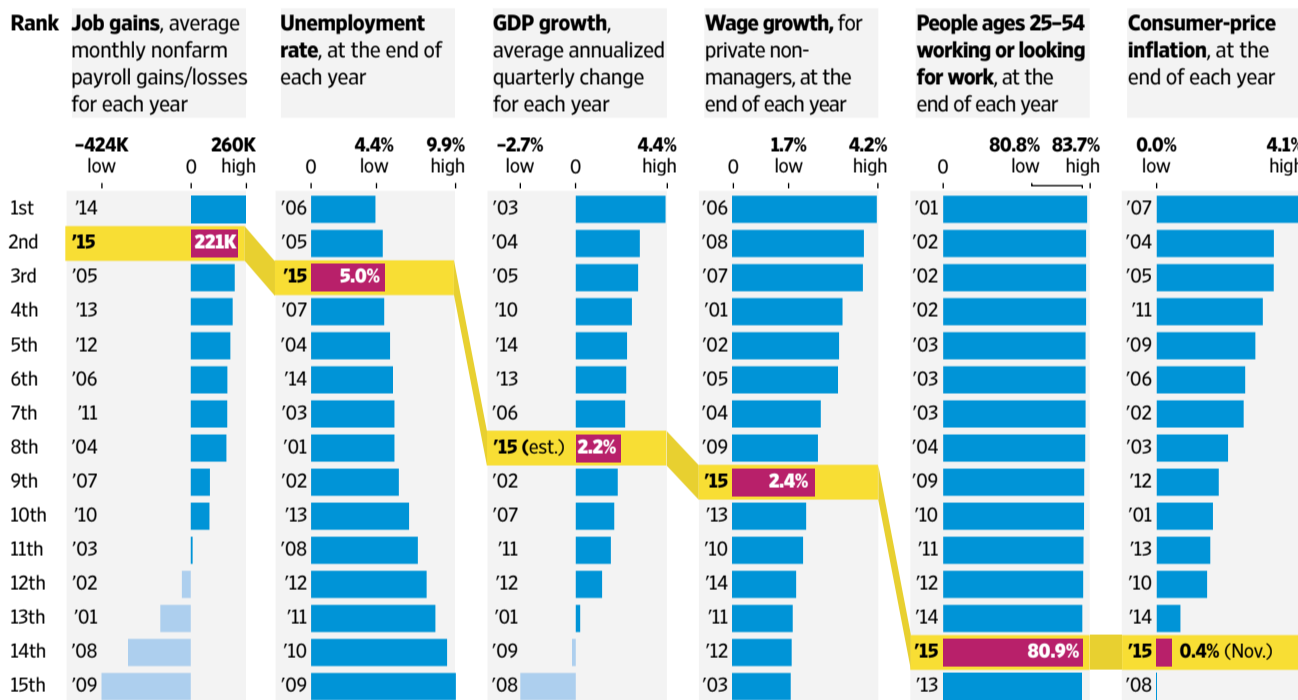
One cause of the mixed signals: Businesses serving domestic consumers are doing fairly well while those with international exposure are increasingly struggling.

Christian Brothers Automotive Corp., an auto-repair chain with locations in 22 states, is hiring five workers at its Houston headquarters and plans to open at least 15 stores over the next 18 months. "With gas prices lower, customers are coming in with a little more money, and saying 'Let's make that repair and maintain this vehicle,'" said Josh Wall, the company's vice president for franchise and strategic development.

Services firms, which range from repair shops to hospitals, accounted for almost 90% of all jobs created in the U.S. last year. Manufacturing, a sector feeling the brunt of the export slowdown tied to a stronger dollar, added 35,000 jobs in 2015 after adding more than 200,000 in 2014. The mining sector, which includes oil and gas extraction, shed nearly

Strong Job Growth Masks Middling Gains Elsewhere

2015 brought improvement for prominent gauges of labor-market health, but relative to the past 15 years it delivered an underwhelming performance in other key measures.



Note: All figures are seasonally adjusted, GDP is also adjusted for inflation. Sources: Labor Dept. (payrolls, unemployment, earnings, participation, CPI); Commerce Dept. (GDP); WSJ Survey of Economists (Q4 2015 GDP forecast)

Andrew Van Dam/
THE WALL STREET JOURNAL.

Wage Growth Is Weak, but Not if Inflation-Adjusted

Whether today's wage growth is healthy depends a lot on how a worker feels about inflation.

Average hourly earnings for workers who aren't managers rose by 2.4% over the course of 2015, the Labor Department said Friday, a figure many economists consider disappointing. Including managers, wage growth rose by 2.5% for all private employees.

In the late 1980s, late 1990s and mid-2000s, wage growth for production and nonsupervisory workers was climbing by

more than 4% a year. Wage figures are being closely watched by everyone from presidential campaigns to Federal Reserve policy makers.

But inflation complicates the picture. While wages are growing slowly, the U.S. inflation rate has been even lower thanks to low gas prices and a strong dollar.

According to the official measures, wages have been growing faster than prices for about three consecutive years. The last long stretch during which wages grew faster than prices

130,000 jobs last year.

A long-missing ingredient during the expansion has been stronger wage growth, signaling continued slack in the labor market. Average hourly earnings slipped by a penny in December from November. Wages were up 2.5% from a year earlier, among the best annual gains of the current expansion, but the improvement remains below historical averages.

When adjusted for inflation—which is near zero due to falling gasoline prices—workers' earnings gains look better. But economists including Fed Chairwoman Janet Yellen have pointed to wage growth as an important driver of a healthy level of inflation. Consumer inflation has undershot the Fed's 2% annual target for 3½ years.

The job gains and stable unemployment could reassure central bankers that the economy is able to handle additional interest-rate increases this year, though officials are unlikely to act again before their March meeting.

Even then, the latest wage numbers will only strengthen

the hand of central bankers "who question the robustness of the link between slack and price pressures," said J.P. Morgan Chase economist Michael Feroli.

One factor holding wages in check is a potential supply of workers outside of the labor

market. The labor force grew by nearly a half-million people in December, a factor that helped hold the unemployment rate at 5% despite strong hiring. The labor-force participation rate ticked up to 62.6% in December, but it remains

down from a year ago, and is still near a 40-year low. A broader measure of unemployment that includes Americans stuck in part-time jobs or too discouraged to look for work stayed at 9.9% in December and has been virtually unchanged since September.

If employers can attract people who weren't actively seeking work, they may be able to limit wage gains. Moving company Two Men and a Truck, which plans to hire up to 3,000 workers as it ramps up for spring and summer, is seeking to attract people not actively searching on job boards with television ads and by offering more-flexible schedules.

"We're spending more money on finding good people than we ever have," said Jeff Wesley, chief executive of the Lansing, Mich., chain. "What we used to do to find customers, we're now doing to find workers."

CORRECTIONS & AMPLIFICATIONS

Foxconn Technology Group said subsidies it received from the Chinese city of Zhengzhou were granted for providing stable employment in 2014. A Business & Tech article in some editions Wednesday about **Apple Inc.** scaling back orders for its iPhones said Foxconn declined to say if changes in iPhone demand were a factor in the subsidies it received from Zhengzhou. Foxconn subsequently said there were no other factors involved in the granting of the subsidies.

A driver for Uber Technologies Inc. in Russia could earn

more than 100,000 rubles a month by working eight to 10 hours, five days a week, while union drivers on average earn 60,000 rubles to 80,000 rubles a month by working 80 hours a week. In some editions Wednesday, a Technology article about taxi-hailing services in Russia incorrectly said drivers could earn those amounts weekly.

Saudi Arabia's Council of Economic and Development Affairs was incorrectly called the Supreme Economic Council in a Page One article Friday about a possible initial public offer-

ing for **Saudi Arabian Oil Co.**

Zebra Technologies Co. acquired the enterprise business unit of **Motorola Solutions Inc.** in 2014. A Business News article Friday about bar-code scanners incorrectly said Zebra acquired Motorola Solutions Inc.

The suspect killed in an attack Thursday at a Paris police station told authorities two years ago that his name was Sallah Ali. A World News article Friday about the attack incorrectly gave the name as Salam Ali.

Readers can alert The Wall Street Journal to any errors in news articles by emailing wsjcontact@wsj.com or by calling 888-410-2667.

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