

ECONOMY

THE COST OF CHEAP GAS

It's the biggest news in the global economy right now:

oil is cheaper than anytime since 2009. And the impact is as obvious

as the sign at the corner service station, where gas is down to an average of

\$2.05 a gallon—the equivalent of a \$750 tax cut for every American household.

But oil is more than just the fuel in our tanks. It's the world's most valuable commodity,

and ripples from the price crash reach everywhere. They can help create new

jobs but also threaten existing ones, spur innovation or slow it, and lift entire

nations while weakening others. In the following pages, TIME explores the

ramifications of cheap oil for the U.S., the world—and you.

THE U.S. OUTLOOK

IN CONSUMERS' POCKETS—AND SHED NEW LIGHT ON THE QUALITY OF THE RECOVERY

A FIRST LOOK: THE COLLAPSE IN oil prices has helped fuel a recovery in the economy, but it's not clear how long it will last. The recovery is still in its early stages, and the economy is still fragile. The recovery is still in its early stages, and the economy is still fragile. The recovery is still in its early stages, and the economy is still fragile.

Transitional period spending and the recovery is still in its early stages, and the economy is still fragile. The recovery is still in its early stages, and the economy is still fragile. The recovery is still in its early stages, and the economy is still fragile.



prices bounce back. —KARA FORSHAN

TEXAS TAKES A HIT

SHALE OIL IS A SIGNIFICANT EXPENSE TO PRODUCE, and the growth of shale oil production in Texas is a significant expense to produce. The growth of shale oil production in Texas is a significant expense to produce. The growth of shale oil production in Texas is a significant expense to produce.

THE U.S. OUTLOOK

CHEAPER OIL WILL PUT MONEY IN CONSUMERS' POCKETS—AND SHED NEW LIGHT ON THE QUALITY OF THE RECOVERY

AT FIRST LOOK, THE COLLAPSE IN OIL prices over the past year, from \$107 per barrel in June to below \$50 a barrel today, seems like the proverbial free lunch for American consumers. The decline in prices is the equivalent of a \$125 billion tax cut. And it's effectively a progressive one, since the biggest beneficiaries will be working- and middle-class people who spend a disproportionate amount of their income on gas for their cars and heating fuel for their homes. American households with oil heat could save \$767 each this winter. That cash can now be spent on a new car—or a washing machine, an electronic gadget, clothes or a few dinners out.

That should boost spending, and thus boost job creation, in a broad array of industries. Goldman Sachs estimates low oil prices could add as much as a half-point to U.S. GDP growth, which would push total growth up toward 3.5%—a level that should sustain the broad-based job creation we've seen over the past few months. In the previous two cases in which oil prices fell more than 50% when the U.S. was not in recession—in 1986 and again in the late 1990s—growth jumped the following year.

So why isn't cheap oil making the markets happy? There are two complicating factors. First, China is now the world's second largest economy and its most voracious energy consumer—and its economic slowdown has dented oil demand. Given that China has provided the majority of global growth since the 2008 financial crisis, Wall Street is spooked. The benefit from falling oil prices for U.S. consumers and companies may well be somewhat offset by a slower China, given that so many American businesses depend on sales in the Chinese market.

But there's another factor at play. Plunging oil prices are pressuring the American shale-oil and -gas producers responsible for the domestic energy boom—which comes with its own ramifications for the economy.

Shale oil is relatively expensive to get out of the ground; much of it requires prices of around \$70 a barrel to be economical. That's why a lot of future shale-oil production is already being slashed. A recent Goldman Sachs report estimated a 15% drop in spending within the U.S. oil business this year; London-based Capital Economics is estimating a much steeper decrease, as much as 60% to 70% in the first half of the year, if prices stay as low as they are. Lower investment means fewer jobs in the industry.

Most economists will say, rightly, that lower oil prices are on balance a short-term net gain to the U.S. economy. Not only is there a huge consumer windfall in the form of lower prices, but the domestic energy sector's share of jobs is really quite small, just 1.4% of total nonfarm employment in the U.S. Yet in a recovery that is producing jobs for Ph.D.s and burger flippers but little in between, energy-sector employment is one of the few bright spots for the middle class. Energy jobs pay more than double the average annual wage across all industries in America.

Those jobs help fuel others in their communities. The Manhattan Institute, a conservative New York-based think tank, has estimated that as many as 10 million jobs in the U.S.—and \$400 billion in annual economic wealth—depend in some way on the shale-oil boom, many of them high-skill, high-pay factory jobs. The National Association of Manufacturers estimates that home-grown shale oil and gas will create another 1 million manufacturing jobs within the next decade, as the economies of scale and logistics of

cheaper domestic energy encourage insourcing of factory jobs back to the U.S.

Exactly how the oil-price decline affects jobs, wages and growth over the next few months will tell us a lot about the U.S. recovery. Will consumers spend their savings from cheap gas and spur economic growth and job creation elsewhere? It looks likely, but when they spend on things like consumer gadgets, for instance, they're mostly supporting cheap factory jobs and well-paid engineers. In other words, the benefits go mainly to the top and bottom ends of the socioeconomic spectrum—right where they've been in the past decade. When falling oil prices cause energy producers to cut back, the U.S. will lose middle-class jobs—exactly the kind America needs to ensure the recovery lasts when prices bounce back. —RANA FOROOGHAR

National average prices
for regular gas

JULY 2008

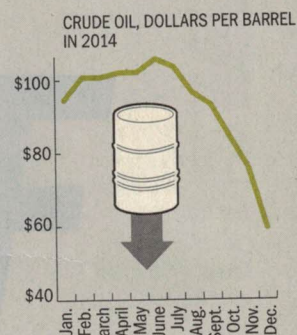
\$4.06

TODAY

\$2.05

THE MATH OF CHEAP OIL

THE PRICE PLUNGED IN 2014—AND IT'S STILL FALLING. HERE'S WHAT CAUSED THE CRASH



TEXAS TAKES A HIT

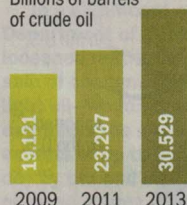
SHALE RICHES CREATED JOBS AND WEALTH. NOW THE STATE FACES LIFE AFTER THE BOOM

WHAT WE HAVE

1

DOMESTIC PRODUCTION SURGES DUE TO FRACKING, WHICH EXTRACTS OIL FROM SHALE. THIS BOOSTS U.S. OIL RESERVES ...

Billions of barrels of crude oil



2

... WHILE OPEC STAYS THE COURSE
OPEC, the Saudi-dominated cartel, historically calibrates oil prices by adjusting the supply. Despite the glut, OPEC has not limited production.

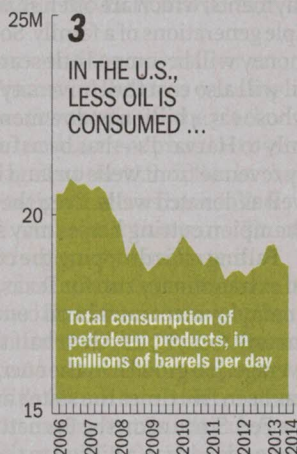
6.53%

Increase in world oil production from 2007 to 2013

WHAT WE USE

3

IN THE U.S., LESS OIL IS CONSUMED ...



4

... THANKS, IN PART, TO AMERICANS' CHANGING DRIVING HABITS

Miles traveled per person

2004	13,182
2014	12,071

Miles per gallon, by vehicle model year (cars and trucks)

2004	19.3
2014	24.2



IN TEXAS, THE PLUMMETING PRICE OF oil isn't cause for celebration. That's particularly so if you're a land man, one of the hustling claim hunters who have spent the past five years rooting through dusty documents in county courthouses and staking out small-town coffee shops seeking the holders of drilling rights to thousands of plots across the Texas shale-oil regions: the Permian, Eagle Ford, Barnett and Haynesville Bossier basins.

It has been the biggest land grab since the Oklahoma Land Rush of 1889, and it produced a gusher of new oil. There were 185,180 producing wells as of September 2014, up from 151,283 in 2006, according to the Railroad Commission of Texas. And thanks to hydraulic fracturing, which frees oil locked in shale rock, those wells produced. Texas alone added 2 million barrels of oil a day to the global market in the past four years, according to the Federal Reserve of Dallas. That's another Qatar's worth of crude.

But the quest for drilling rights has come to an abrupt halt. "Once prices drop below about \$65 to \$70 per barrel, much of the activity in the shale basins is not profitable," says Ray Perryman, principal of the Perryman Group, an economics consulting firm in Waco, Texas. Recently, that led Eagle Ford shale players to let go hundreds of land men (and

women), according to industry sources.

The company, like many others in the oil and gas sector, is also cutting its capital expenditures. Matador Resources is shutting down Eagle Ford rigs. Laredo Petroleum slashed its capital-expenditure budget to \$525 million from \$1 billion in 2014. "Texas is a slowdown of a hot economy. Drilling economies pulled up, rigging companies are stopping the drilling—you are going to see unemployment in those regions," says Detlef Hallermann, a petroleum engineer and a professor of finance at Texas A&M's Mays Business School.

Digging fewer new wells and closing marginal ones inevitably means fewer roustabouts and riggers and fracking crews, but it also means fewer jobs for everyone along the food chain. Shale regions will also take a pounding because of the reverse of the multiplier effect. (Other big fracking zones, like North Dakota's shale lands, will also feel the pain.) The shale boom created a housing boom, a hotel boom and a restaurant boom—and a labor shortage that pushed wages ever upward. The town of Midland in West Texas had the highest per capita income in the nation in 2013 at \$83,000. It was a good place to sell backyard pools and high-end trucks.

Not so much now. Perryman's modeling projects annual job losses tied to the oil bust in the 125,000-to-175,000 range, depending on "how low and how long" oil prices remain depressed. The pain will be the greatest in the Eagle Ford play in South Texas and the Permian Basin in West Texas, he says. Houston, the capital of oil, will also get dinged.

But while job numbers will decline, production won't—at least not at first. Fracking is capital intensive, so the operators, ranging from huge outfits such as Anadarko to hundreds of private-equity-backed partnerships, have borrowed billions of dollars through junk bonds and private placements. Even if the wells aren't profitable, they can't be shut off—the bond payments still have to be made, so the cash is needed. There's also huge asset shuffle taking place as firms are forced to sell distressed drilling projects.

The localized financial structure of Texas shale wells means that the pain will be spread widely. In a typical setup, 20% to 25% of a well's revenue goes to the subsurface-rights holders in royalty payments, which are often shared by multiple generations of a family. So spending money will become a little scarcer. Cheap oil will also cost the University of Texas, whose \$25.4 billion endowment—second only to Harvard's—has been fueled in part by revenue from wells on land it owns as well as donated wells. Even the price of champion cutting horses may suffer.

Falling oil is dropping the curtain on an extraordinary run for Texas, where unemployment rates in oil counties have shrunk to 2.3%, less than half the national average. Job growth in the energy sector has been five times the state's average, says the Fed. Since 2001, the Barnett Shale play alone added \$120.2 billion to the state's economy, according to Perryman, and yielded some \$4.5 billion in local taxes while contributing more than \$6 billion to the state coffers.

Of course, oil booms and busts are as common to Texas as cowboy hats. "This is our fifth rodeo, and I think we'll work our way through it," Pioneer Natural Resources president Tim Dove said at a recent Goldman Sachs energy conference. Well, he will. And the Texas economy is certainly more diversified than it was during the last oil bust, in the mid-'90s, having expanded into microelectronics, computers, software and biotechnology, among other sectors.

Low oil prices aren't all bad for Texans. They will benefit from lower gasoline prices like everyone else, and so will industries that are heavy petroleum users, such as chemical-feedstock producers. And the state will still add jobs, albeit more slowly; Perryman is forecasting a net gain of about 200,000 to 225,000 jobs this year vs. the 440,000 created in the past 12 months.

Bottom line, the boom is over for the Lone Star State. When it comes to jobs and growth, Texas will have to suffer the indignity of looking more like the rest of America.

—BILL SAPORITO

Number of oil-drilling rigs in the U.S. in January 2015:

1,366

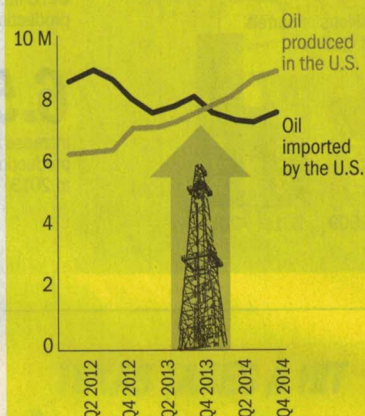
15% decrease from October 2014, a sign of a slowdown in future oil production



SHOULD THE U.S. EXPORT?

A DOMESTIC BONANZA HAS SOME LAWMAKERS RETHINKING 40 YEARS OF POLICY AGAINST SELLING AMERICAN CRUDE OVERSEAS

AVERAGE BARRELS OF CRUDE PER DAY



In the pre-Christmas doldrums last December, the House Subcommittee on Energy and Power gathered in its wood-paneled chambers for an unusual hearing. On the agenda: whether the U.S. should lift its long-standing ban on most crude-oil exports.

Even a few years ago, the suggestion would have been dismissed out of hand. Politicians on the left and right have long held that U.S. dependence on foreign oil is one of the gravest threats to national security. But as Republican Congressman Joe Barton of Texas noted at the December hearing, "It's a different world today." Technological advances like hydraulic fracturing and horizontal drilling have pushed domestic oil production to 9 million barrels per day in late 2014, up from 5 million in 2006. By some measures, America is now the world's top oil-producing nation. And the dramatic rise in domestic production, paired with tumbling oil prices, has sparked a new debate over the merits of an old policy. "The current energy revolution," says Republican Senator Lisa Murkowski of Alaska, "creates an opportunity for our nation to take on a different kind of role—as a major energy producer and exporter."

One of the driving forces behind the push to lift the ban has been the U.S. petroleum industry, which is eager to tap into new markets for the abundance of light, sweet domestic crude produced in hot spots like North Dakota's Bakken formation. But beyond oil-industry lobbying, economists and energy experts have come to believe the policy is simply a relic. It dates to 1975, when the pain of the Arab oil embargo was fresh and the specter of further shortages haunted Capitol Hill. "The original logic doesn't have any bearing today," says Michael Levi, a senior fellow at the Council on Foreign Relations.

In a significant step, the U.S. Department of Commerce quietly loosened restrictions last year on the sale of condensate—a type of ultra-light oil—to foreign buyers. By some estimates the move could produce exports of up to 1 million barrels per day by the end of 2015. The milestone cheered export supporters, but the decision to make the change with little publicity underscored its slippery politics.

This isn't a typical partisan debate, though. It's a clash between powerful special interests on both sides of the political divide. It pits major oil companies against environmentalists, who are wary of more drilling, and oil refiners, who say easing the restrictions would increase costs. "There is justifiable concern that the price at the pump will go up if exports are permitted," says Jay Hauck, executive director of the CRUDE Coalition, a group of refiners.

A gusher of academic research suggests otherwise. "There's not much downside to changing the policy," says Jason Bordoff, a former adviser to President Obama who now serves as director of the Center on Global Energy Policy at Columbia University. Studies suggest it would give the U.S. flexibility in the global oil market and offer modest benefits to consumers. But that reality hasn't filtered down to voters, 7 in 10 of whom oppose allowing energy companies to export oil and gas to foreign countries, according to a recent study conducted for the left-leaning Center for American Progress.

As a result, many members of Congress who might like to relax the ban are fearful of being punished by voters when oil prices rise—as they inevitably will. If the Obama Administration doesn't act, Murkowski, chair of the Senate Energy Committee, plans to introduce legislation. But it's an open question when that may be. —ALEX ALTMAN

THE BIG LOSER

BLACK MARKETS. BREAD LINES. IN VENEZUELA, FALLING OIL PRICES MEAN A RECKONING FOR THE SOCIALIST REVOLUTION

VENEZUELA'S ECONOMY IS IN TATTERS. Annual inflation is running at more than 60%. On the black market, the local currency has lost 65% of its value against the U.S. dollar in the past year. Foreign reserves have fallen around 30% in the past two years. Shortages, due in large part to importers' struggle to obtain hard currency, have led to ubiquitous lines for everyday goods. "This government is filth," says Antonia Rodríguez, a 60-year-old lab assistant, waiting in line for milk outside a Caracas supermarket on a recent Sunday morning. "There's no food! If Chávez were alive, this wouldn't be happening."

Former President Hugo Chávez lubricated his socialist revolution with hard cash from Venezuela's oil reserves, the world's largest. Some 96% of the country's foreign income is derived from selling

oil. But Chávez is dead, and his successor, Nicolás Maduro—elected in April 2013—is paying the bill. The price of Venezuela's oil, composed of heavier crudes that fetch less than international benchmarks, last week averaged just over \$39 a barrel. Economists estimate that Venezuela needs well over \$100 a barrel to maintain its bloated spending. Venezuela may well default on its debt this year. Arguably no other country loses so big from cheap oil.

Last year, Maduro faced the biggest antigovernment protests in Venezuela in more than a decade. Now, with oil revenues in free fall, Maduro's popularity is down to 22% and looks to be falling. Even those who once supported Chávez, like Rodríguez, are unhappy with Maduro's handling of the economy. Two-time presidential candidate Henrique Capriles, a stalwart of the opposition, has called for

Winners

U.S.

Cheaper oil means consumers will have more cash, though domestic producers will hurt

SAUDI ARABIA

The wealthy nation will lose on low prices, but its competitors will suffer even more

INDIA

Cheaper prices will mitigate the \$10.5 billion the government spends on petroleum subsidies each year

CHINA

Every \$1 drop in oil translates into \$2.1 billion in savings for China, which could use the opportunity to phase out cheaper, dirtier fuels

Losers

VENEZUELA

The country, which needs oil prices around \$120 a barrel to balance its budget, risks defaulting on its debt.

IRAQ

The country's battle against the Islamist insurgent group ISIS is costly and highly dependent on oil revenue

IRAN

Oil prices may pressure Iran to reach a deal over its nuclear program in order to ease debilitating sanctions

RUSSIA

The government predicts its economy will fall into recession amid tumbling oil prices and Western sanctions



further protests. The one saving grace for the government is that the opposition remains divided and weak. But lacking Chávez's charisma—which carried the former President through trying economic times in the past—Maduro may be vulnerable to rivals within his Socialist Party.

Cheap oil puts the President, who blames the problems on an "economic war" being waged against Venezuela by the West, in a tough position. Bringing in pragmatic economic policies would hurt poor Venezuelans, who form the base of his support. Currency controls, enacted over a decade ago by Chávez, have created a black market on which the dollar sells for 30 times its strongest official value. But devaluing or ending the currency controls would exacerbate inflation and lower the value of Venezuelans' savings.

Another option would be to end a \$12 billion-a-year subsidy on gas at the pump, which allows Venezuelans to fill up their cars for just a few cents. Economically, this would be easier to do now with low oil prices, though politically, it could spark major riots—just as it did when a similar move was tried in 1989.

The oil crash has already clipped Venezuela's anti-U.S. foreign policy. Beginning under Chávez, Venezuela has served as Cuba's chief patron, sending the communist island country almost 100,000

barrels of oil per day and between \$5 billion and \$15 billion per year in aid. But there's no way that Maduro can afford to remain so generous with oil below \$50 a barrel—something Cuban President Raúl Castro surely knows. The lack of guaranteed support from Caracas would have made Castro "much more eager to negotiate and given the U.S. leverage," says Ted Henken, a Cuba expert at Baruch College. December's historic rapprochement between Havana and Washington might never have happened in a world of triple-digit oil.

The International Monetary Fund now projects that Venezuela's economy will shrink by 7% in 2015. Yet Maduro mostly speaks of the need to "deepen the model" of socialism. When Chávez became President in 1999, he toured the nations of OPEC and invited their heads of state to Caracas for a major summit. Prices went up and stayed there for years, thanks in part to the Sept. 11 attacks and wars in Afghanistan and Iraq. Maduro has just come back from a similar tour of OPEC nations, hoping to persuade cartel members to push up prices and also to seek financing for Venezuela. In a recent cartoon by Venezuelan satirist EDO, Maduro is shown as a sweating snake charmer trying to persuade a barrel of oil to rise. So far, the magic hasn't worked.

—GIRISH GUPTA/CARACAS

GLOBAL FORECAST

WITH OPEC'S SWAY DIMINISHED, LOWER PRICES MAY HAVE STAYING POWER. THAT MEANS OPPORTUNITIES ALONG WITH A SOBERING PRICE TAG

Think it's easy to predict where oil will go? Consider what the very bright analysts at the IMF concluded last October when they took stock of where the global oil industry was headed: they warned the world about the risks of rising crude prices. The IMF estimated that oil prices could rise by as much as 20% over the course of a year, should the militants of ISIS manage to push farther into Iraq and seize the country's valuable oil wells. The negative effects, the IMF concluded, could be enough to knock up to 1.5% off global growth.

That's not quite what happened. The war against ISIS still rages in Iraq, but the country's oil keeps flowing. In fact, by December, Iraq was producing a record 4 million barrels of oil a day. Russia, meanwhile, last month pumped a post-Soviet record of 10.67 million barrels of oil a day. And in the U.S., even as prices were falling through the floor, oil production is nearly double what it was just seven years ago, and it's projected to keep growing in the short term. In total, the world produced a record 92.18 million barrels of oil a day in 2014—a daily surplus of nearly a million barrels. Turns out, high oil prices are one thing the global economy doesn't have to fear.

At least not for now. The long-term impacts of cheap oil depend on whether prices stay depressed for years or just months. Goldman Sachs—which notoriously projected in 2008 that oil could eventually hit \$200 a barrel—slashed its forecasts to \$50.40 for 2015 and \$70 for 2016. Some traders have even bet that oil could go as low as \$20 a barrel by June—a level not seen since shortly after the Sept. 11, 2001, attacks.

Economics 101 would suggest

CASHING IN THE DROP IN OIL PRICES IS EQUIVALENT TO A \$125 BILLION TAX CUT. HERE'S WHAT THAT MEANS:

CONSUMERS GET A BREAK

\$767

Expected savings in oil-heating bills this winter, due to milder temperatures and lower prices



BIG CARS ARE BACK

PERCENTAGE OF VEHICLES SOLD



SUMMER 2008

(gas \$4/gal.)
45% Trucks and SUVs
55% Passenger cars

TODAY

(gas \$2/gal.)
55% Trucks and SUVs
45% Passenger cars

RETAILERS GET A LIFT

With heating-oil and gasoline savings, consumers have more cash for discretionary purchases

SALES INCREASES

November 2013–November 2014:



Electronics and appliance stores 5%



Clothing retailers 5%



Restaurants 6%



Sports, hobby, book and music stores 4%

\$2.30

that ultra-low prices should induce greater consumption, but aside from the U.S.—where fuel consumption rose 7.1% year over year in the four weeks leading up to Jan. 9—that hasn't really happened. The same IMF that warned of the negative effects of a sudden oil-price rise in October has now cut its forecast for global economic growth by 0.3%, even though oil is cheaper than it's been for nearly six years. There's too much crude on the international market—global oil inventories grew by almost 800,000 barrels a day last year—and not enough takers.

As the country with the world's biggest spare capacity—the amount of dormant oil production that can be turned on like a tap—Saudi Arabia could single-handedly reverse the price slide by cutting production. It's done so in the past, most recently after oil crashed following the 2008 global financial crisis.

But in November Saudi Arabia and its partners in the OPEC cartel did something different, keeping production steady at around 30 million barrels a day. It's not certain why. Riyadh might want to rein in troublesome regimes like Iran and Russia,

which are less able to endure low prices, while undercutting new production in countries outside OPEC. (It costs just a few dollars to extract oil in Saudi Arabia, far less than the price of fracking for oil in Texas or drilling ultra-deep wells off Brazil's coast.) "It is not in the interest of OPEC producers to cut their production, whatever the price is," Saudi Oil Minister Ali al-Naimi said at the end of December. As for \$100-a-barrel oil—what seemed like the new normal as recently as a year ago—al-Naimi said "we may not" see it again.

Those were startling words; the International Energy Agency called it a "milestone in the history of oil." After all, OPEC is a cartel, and the whole point of a cartel is to control prices for the benefit of producers. But a cartel requires a virtual monopoly, and for OPEC, that's increasingly no longer the case. OPEC production barely changed from 2013 to 2014, but non-OPEC countries, including the U.S., added 2 million barrels a day, which happens to be about the size of the global oil glut.

Right now those suddenly cash-tight oil companies are responding to low prices by cutting back on new exploration

A LOOK AHEAD



AIRLINES WILL PROSPER

Airlines still haven't lowered fuel surcharges—and may not for another six months. Passengers will likely pay 2% more this year to fly on North American carriers even as airlines cash in.

Profits, in billions:



EMPLOYMENT WILL GO UP

A bump in sales could encourage businesses to hire

300,000

Additional jobs expected to be created in 2015 due to consumers' energy savings

and drilling, so production growth will eventually slow. In the medium term, cheap oil could be with us for some time. That will be great for farmers, for example—modern agriculture is incredibly energy-intensive, even more so than manufacturing. And developing nations like Indonesia and Egypt can use low prices as an opportunity to finally phase out ruinously expensive fuel subsidies in favor of better development spending.

But cheap oil, like cheap food, isn't good for the planet over the long term. Already Americans are responding to \$2-a-gallon gas by buying more big trucks, while sales of hybrid cars are down. Stocks of solar companies have fallen in tandem with oil, as inexpensive crude undermines some of the economic rationale for switching to renewables. Most of all, though, cheap crude will just keep people addicted. Petroleum accounts for 36% of energy-related carbon dioxide emissions—emissions that helped make 2014 the warmest year on record. We can't predict where the price of oil is headed. But the price of continuing to burn it keeps getting clearer.

—BRYAN WALSH

