

THE WALL STREET JOURNAL.

© 2000 Dow Jones Company, Inc. All Rights Reserved.

SHOCK ABSORBER

U.S. Retools Economy, Curbing Thirst for Oil

BY JUSTIN LAHART AND CONOR DOUGHTERTY

August 12, 2008

The U.S. economy is starting to figure out how to curb its legendary appetite for energy.

Consumers are buying fewer sport-utility vehicles and more energy-saving washing machines. Some trucking companies have rejiggered their engines to max out at lower speeds. Gridlock is easing in California. Americans drove 966 million fewer miles in May than they did a year earlier, a 3.7% decline, according to the Transportation Department.

With shipping costs surging, companies are rethinking overseas production, slimming down packaging and retooling distribution networks. Yogurt maker Stonyfield Farm is only sending out fully loaded delivery trucks. **Procter & Gamble** Co. is filling smaller bottles with more-powerful laundry detergent. Locally made products, from beets to beer, are becoming a more attractive choice.

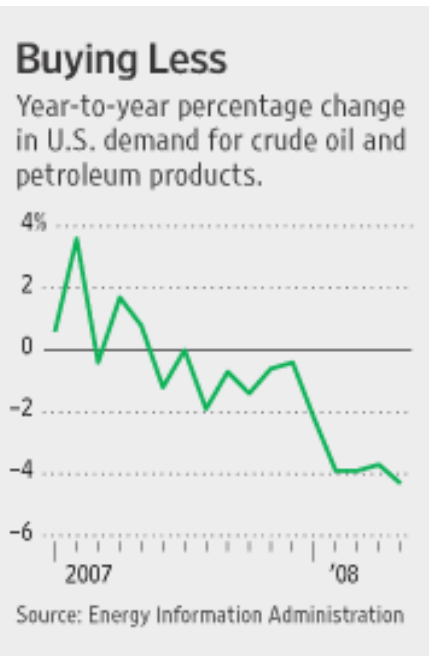
"Four-dollar gas is the best marketing tool I have," says Betsy

Kachmar, assistant general manager of Fort Wayne Public Transportation Corp. in Indiana. Bus ridership in that city was up 16% in the first half of this year, compared with the year-ago period. Mass-transit ridership nationwide rose 3.4% in the first quarter, according to the American Public Transportation Association.

Hard evidence is emerging that the changing behavior of consumers and businesses may be making a dent in the oil market. The Energy Department reported last week that demand for gasoline for the four weeks ended Aug. 1 was 2.3% lower than in the same period last year. Declining demand is the prime force behind the oil market's recent slide. Crude oil closed Monday at

\$114.45 a barrel in New York trading, the lowest since May 1. Crude oil has fallen 21% from its July peak of \$145.29.

Whether this newfound energy austerity alters the fabric of American life in a lasting way will depend partly on what happens to oil prices over the long term. An earlier price spike, which began in 1979, also led to a big energy-efficiency push. But by 1993, inflation-adjusted oil prices had fallen more than



75%, and the U.S. was consuming as much gasoline as before. By last year, with gas guzzlers once again ruling the highways, America was using 24% more than that.

Demand from rapidly growing economies of China and India make lasting oil-price declines less likely these days. Despite the market's recent fall, prices remain above the prior inflation-adjusted peak of \$106.15, set in April 1980.

The high prices have been a drag on an economy already sagging due to the housing downturn and shaky credit markets. Auto sales have fallen, airlines are cutting back on flights, small trucking firms are going out of business, and transportation costs are eating into corporate profits.

Much of the way America has come to live and do business is predicated on low energy prices. After the last price spike eased in the mid-1980s, many consumers, once again, appeared to give little thought to how much energy they used. They traded in their sedans for SUVs and their ranch houses for McMansions.

U.S. companies moved manufacturing overseas where labor was cheap, unconcerned with the resulting need to move products thousands of miles back to their customers. Low fuel costs facilitated "just-in-time" delivery systems -- supplies were delivered as needed, frequently by air rather than truck. The additional fuel costs were

seen as a small price to pay to keep inventories low and customers supplied with the latest goods.

The era of cheap fuel began drawing to a close three years ago, and many businesses now are taking a hard look at their energy costs.

Johnson Controls, a Milwaukee company that works with

building owners and managers to reduce energy costs, did a survey earlier this year of 1,150 executives who manage energy costs and investments.

Forty-one percent said that in the past year they had replaced inefficient heating and ventilation equipment with more efficient models before the equipment needed to be replaced, compared with 28% a year earlier. In the same survey, 78% said they had upgraded their lighting systems before they needed replacement, compared with 67% a year ago.

State University of New York's Ulster County

Community College is planning to spend \$150,000 for solar panels on a two-story, flat-roofed building that houses classrooms, the financial-aid office and a 408-seat theater. The panels will power most of the building's heating and air-conditioning units. The school says the new system will save about \$20,000 a year, and will pay for itself in seven years.

Bryan Sievers, a farmer in New Liberty, Iowa, is trying to reduce energy costs on his farm. He is considering air-drying more of his corn instead of using propane heaters. He has outfitted his tractors with global-positioning systems,

Changing Fleet

Sales of light trucks, including pickups and SUVs, as percentage of all vehicle sales.



Source: Ward's Automotive

which he hopes will enable him to work his fields more efficiently.

Home Adjustments

U.S. households are making adjustments, too. David Pastor, who owns Fletcher's Appliance in Nashua, N.H., says three out of four washing machines he sells these days are energy-saving front loaders, up from one in four two years ago. "It's really gaining momentum," he says. During the first six months of this year, 55% of the washing machines, dishwashers and refrigerators shipped by appliance makers bore the government's Energy Star rating for high energy efficiency, up from 50% a year earlier, according to the Association of Home Appliance Manufacturers.

Two years ago, Southern California Edison, which powers much of Central and Southern California, started offering partial rebates on air-conditioner tuneups. This year, through July, 37,000 customers signed up, compared with 6,000 all of last year.

Price Shock of the '70s

Other industrialized nations have learned to live with even higher fuel prices. Historically, Japan and Europe, unlike the U.S., have produced little gas and oil. That made them much more nervous than the U.S. about their dependence on foreign supplies. Their governments tax fuel heavily, and have championed the development of mass transportation.

The oil-price shocks of 1973 and 1979 motivated Japan, in particular, to become more energy-efficient. In 1980, when U.S. con



Newscom/Philadelphia Inquirer
A woman in Philadelphia fills up the two gallons her Vespa scooter holds for about \$8 in June.

sumers were griping about \$1.25-a-gallon gas -- \$3.30 in today's prices -- their counterparts in Japan were paying roughly twice as much. They started using a lot less. In 1983, Japan consumed about 25% less oil per person than it had in 1973. Last year, Japan used 14 barrels per person, and the countries in the euro zone consumed 17. The U.S. used 25 barrels per person.

There is some evidence that Americans are looking anew at public transportation and thinking more about settling closer to their jobs. In the Milwaukee market, home values in the downtown area were 1.4% higher in the first quarter than in the year-earlier period, estimates real-estate price tracker Zillow.com. But between 10 and 20 miles out, prices were down 1.6%; 20 to 30 miles out, they were off 3.3%; and 30 to 40 miles out, they were down 5.8%, Zillow.com estimates.

Columbia Business School economist Christopher Mayer says the pattern is showing up all over the country. "That's a combination of where all the subprime took place and this problem of gas prices," he says. "Clearly, the exurbs are hurting."

California has long talked about a high-speed rail line to connect the San Francisco Bay Area to Southern California. After years of chatter about

the project, a \$10 billion bond measure to start construction will be put to a vote this year. Last month, 62% of voters polled by JMM Research said they would support the bond measure, up from 52% in November. Voters cited having an "affordable" transportation alternative, "reducing dependence of foreign oil" and "reducing traffic congestion" as reasons for supporting measure. "You could start seeing [voter opinion] turn in May, when gas was \$4.50 to \$5 a gallon here," says JMM Research President Jim Moore.

Harvard University urban economist Edward Glaeser says there are limits to how much the U.S. can be expected to follow Europe and Japan. The U.S. population grew nearly fourfold in the 20th century, an increase that coincided with the rise of the automobile. Motor travel reshaped the country, allowing people to move away from the old coastal cities and transport hubs. In Europe and Japan, much of the population growth occurred before car travel took hold, so people are still clustered around old transport hubs. That makes it easier to forgo car travel.

When gasoline prices spike, Americans tend to change vehicles. After the 1979 oil shock, they bought more fuel-efficient cars. Even though they drove more miles in 1982 than in 1979, they consumed 12% less gasoline. The fuel savings continued through the 1980s, even as gas prices fell. Fuel-efficiency standards mandated by Congress were part of the reason. But the main one was that so many gas guzzlers were no longer on the road.

Vehicle Shift

Now, the country is in the midst of a similar shift. Last month, light trucks, which include sport-utility vehicles, accounted for 45% of light-

vehicle sales in the U.S., down from 52% a year earlier and 60% in July 2005 -- even though dealers offered discounts to clear them off their lots. With demand for hybrids and other fuel-efficient vehicles surging, car companies are retooling truck and SUV plants to build smaller cars and plowing money into developing more efficient cars. Such shifts could lower Americans' gasoline bill, which last year amounted to 30% of the energy spending of U.S. households, for years to come.

Fuel prices are causing many companies to change what they ship and how they ship it. "You want to reduce the amount of distance, you want to reduce the amount of transportation in the network," says Tom Jones, a supply-chain manager at Ryder System Inc., a Miami-based truck-leasing and logistics company. "That really leads to people doing things differently."

Ryder has adjusted engines in its truck fleet to go no faster than 63 miles per hour, down from an earlier 65 mph limit, and to shut off after they've been idling for five minutes rather than 10. Londonderry, N.H.-based Stonyfield Farm, which leases trucks from Ryder, is using onboard computers to keep tabs on whether drivers are wasting fuel with bad habits like accelerating too quickly, says Ryan Boccelli, the company's director of logistics.

Another way companies are trying to cut fuel costs is by changing their packaging. Procter & Gamble, which makes Tide detergent, shifted to more concentrated detergent last year to reduce transportation costs and to enable retailers to fit more on their shelves.

Companies that ship cheap but bulky goods are adapting the quickest. Three years ago, **Kimberly-Clark** Corp., maker of Kleenex tissues and

Huggies diapers, started revamping its distribution network. Its distribution centers were located next to its production plants. Now the company has eight giant distribution facilities spread around the country. The new setup, which allows the company to rely more on rail, helped it save 470,000 gallons of fuel last year.

Railroad transport, however, can slow the flow of merchandise from warehouses to store shelves. That forces retailers and manufacturers to carry more inventory or risk not having enough to meet customer demand. Some companies are reluctant to make moves similar to Kimberly-Clark's, says Yossi Sheffi, an engineering professor at the Massachusetts Institute of Technology who advises firms on supply-chain management. "What happens if oil goes back to \$70 and I've got myself into a position where I'm less competitive?" he asks. The longer energy prices stay high, he says, the more companies will make the shift.

Competitive Boost

High gas prices could provide a competitive boost to small farmers who market their food as locally grown. Westtown, N.Y., vegetable farmer Keith Stewart doesn't use any pesticides or herbicides -- most of which are petroleum-based -- and he fertilizes his fields with manure from local farms. He sells his produce at the Union Square farmers market in New York City, a 65-mile drive.

Mr. Stewart charges more than supermarkets do for their nonorganic fare, but the gap is narrowing. His prices, he figures, have risen 2% to 3% over the past year. That's less than the 8.4% the Labor Department says U.S. vegetable prices have risen over the past year. "I don't want to give the impression that I enjoy these high [energy] prices," he says. "But it's not something that is going to put me out of business."

"The environmentalists have always asked you to eat locally," says Matthew Kahn, an economist at the University of California, Los Angeles. "But now the businessmen will agree."