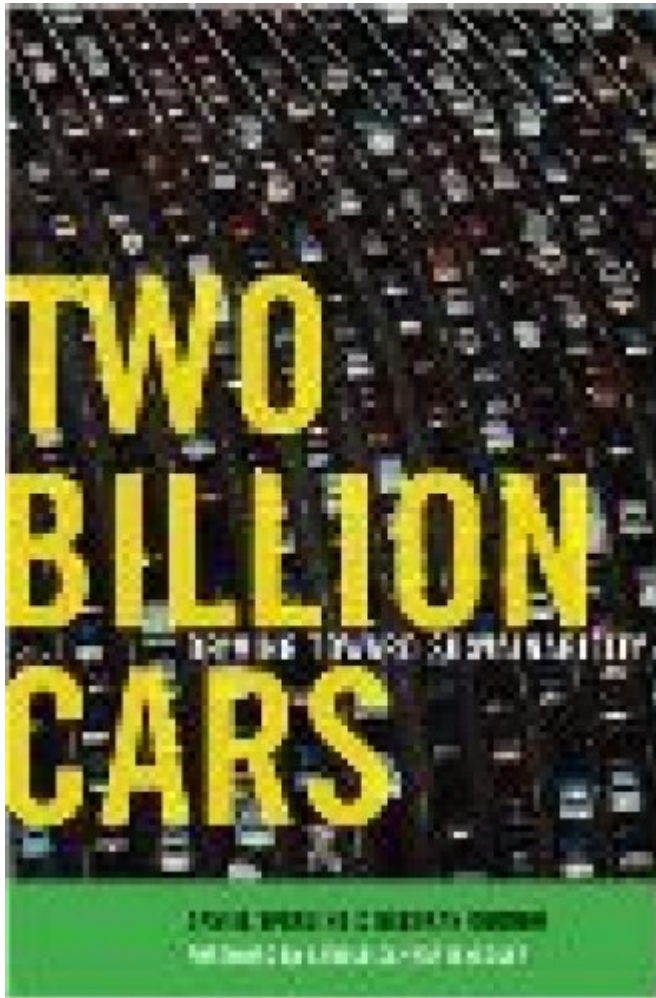


Engine trouble

By [Bill McKibben](#) in the [July 14, 2009](#) issue

In Review



Two Billion Cars: Driving Toward Sustainability

Daniel Sperling and Deborah Gordon
Oxford University Press

The book *Two Billion Cars* arrives in stores at the close of a quarter that has seen auto sales plummet 30, 40, even 50 percent, depending on the manufacturer. The

Big Three went to Washington to plead for a handout (and Toyota has passed GM as the world's biggest automaker, even though its sales are also in steep decline). One imagines that auto executives now view the title of this volume—the idea that the planet will soon double its auto fleet from the current billion—as an unlikely prayer.

If there were ever a book outdated by the pace of events, this is it. In the months between its writing and its publication, one development after another has upended the old consensus about cars, about energy, about global warming and about the economic future.

Consider, for instance, Sperling and Gordon's treatment of peak oil production. They state categorically that oil consumption will continue to rise, "barring dramatic events such as wars, economic depressions, or newfound political leadership." We've arguably got those, but that's not the real reason oil consumption will start to slow. It's because oil fields are playing out. The authors present this as a hypothesis that's been discredited—"the more dire forecasts of oil peaking are simplistic and largely incorrect." But in November, the International Energy Agency—the very conservative consortium designed to safeguard world oil supplies, which until now has been resistant to the idea that oil production has peaked—released a massive survey of the world's oil fields. It found that the natural rate of decline in production from those fields would be 7 percent or so a year going forward—and that in order just to maintain production at current levels through 2030 we'd need to find four new Saudi Arabias. Which isn't going to happen. As former energy secretary James Schlesinger said last fall, "The battle is over and the peakists have won."

Or take the authors' consideration of the responsiveness of motorists to changes in the price of gas. They spend several pages insisting that consumers don't drive much less if the price goes up. They add a paragraph noting that this changed in the spring of 2008 when prices soared toward \$4 a gallon, but they speculate that we will likely be turning back to driving SUVs if prices fall, and they dismiss the reduction as minimal in any event. But in fact 2008 seems to have marked a real turning point—for almost the first time since we began mass-motoring, we drove significantly less. Detroit has now all but ceased producing SUVs. Even as gas prices fell, the resale value of the old behemoths remained deeply depressed.

In case after case, Sperling and Gordon are behind the curve. They champion hydrogen cars as "the holy grail" and devote page after page to the stories of valiant fuel-cell makers and the like. But almost every other analyst has decided that

fuel-cell technology is defunct. In late spring GM and Toyota said they were placing their bets almost exclusively on electric vehicles of one kind or another, especially the plug-in hybrids (Sperling and Gordon manage to get this almost exactly backward, insisting that Toyota and Honda are skeptical of plug-in technology.)

It's a shame that this book emerged at such an unsettled moment because the authors do a superb job of providing backstory. With extensive participation in clean air and transportation efforts in California, Asia and elsewhere, Sperling and Gordon have had a front-row seat for many of the most important developments in recent years. They do a sprightly job of explaining the shameful collaboration between the carmakers, the auto unions and Congress to prevent increases in mileage standards. (The chart displaying how the Honda Accord gained weight over the decades is almost all the commentary you'd ever need—between 1975 and 2008 it went from 2,000 pounds to 3,567, from 68 horsepower to 268, and from 46 miles per gallon on the highway to 29.)

Better yet, the authors provide a first-rate picture of the possibilities for what comes next, both here and abroad: much improved public and private transit designed to take advantage of new computer networking technology, for instance. The chapter on China is particularly strong; Sperling and Gordon make it clear that the story there is far more complicated and hopeful than the usual pictures of car-choked Beijing streets would imply.

But they are never really able to break out of their belief that we will live in a world with 2 billion cars, and hence much of their argument is spent discussing incremental improvements in those vehicles—better engines, better fuels. There's nothing wrong with those recommendations, but they are kind of stale too, mostly because of what we've learned in the last 18 months about global warming.

Sperling and Gordon seem to be relying heavily on the already out-of-date conclusions of the Intergovernmental Panel on Climate Change—they talk, for instance, of 40 percent reductions in greenhouse gas emissions from transport fuels by 2050. As the Arctic has melted in recent summers, however, scientists at the cutting edge of climate science have warned us that we need to move much, much faster.

NASA's James Hansen, the researcher who first blew the whistle on global warming two decades ago, has insisted that the data now clearly show that any atmospheric

value above 350 parts per million of carbon dioxide is not compatible with the planet “on which civilization developed and to which life on earth is adapted.” We’re already past that point, sitting at 387 ppm and rising. Only the most dramatic shifts—Hansen has called for an end to all coal burning by 2030, for instance—give us hope of reversing course.

There’s an urgency in the air right now (a fright, really) that stems from our economic crisis and our ecological peril. It requires going beyond the admirable solutions of the past, and doing so rapidly. A world that allows itself to live with anything near 2 billion vehicles is a world in horrible trouble.