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What If Gas Cost $100 a Gallon?

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I am very fond of thought experiments. I like to ask *"What If?"* This can help me wrap my head around a problem. For instance, if I wonder how much land it would take for solar panels to produce enough electricity to supply the U.S., that's a thought experiment. It isn't that I think we are going to build a solar grid that is 50 by 50 miles of nothing but solar panels, nor that I am oblivious to energy storage issues. Rather, it can help frame for me whether the idea is daft from conception, or whether there is a nugget of potential embedded within.

Lately I have been thinking of another thought experiment. What would I, personally, do if gasoline was $100 a gallon? Now that may seem silly. Nobody thinks we are going to have to deal with gasoline at $100 a gallon. But that misses the point of the thought experiment. When I ask people at what price point gasoline is going to have a **major** impact on their lifestyle, that seems to be a moving target. When gas was $2, they said $4. Now that gas is $4, many have realized they won't make big changes at $10. Oh, they might buy a smaller car, but they aren't going to start walking 3 miles to the store. A friend who drives a Suburban recently told me that he doesn't care about gas prices; that he is going to keep driving at the same rate regardless. I bet he would have a change of heart if gasoline was $100 a gallon.

So the point is to jump so far out there - $100/gal - that there is no question that 99% of us would have to make some serious changes. The thought experiment is mainly designed to flesh out how people might cope as gasoline becomes more expensive and as we go down the depletion curve. This is already reality for some, as your $100/gal dilemma is someone else's dilemma at $4/gal.

What I would like is to hear how **you** would cope with $100 a gallon gasoline. Let's presume that gasoline prices increase to $100 at a steady rate over the next 5 years. Because many of our energy sources are interchangeable, let's assume that other fossil fuel sources (coal, gas, etc.) follow suit. Alternative (non-fossil fuel) energy sources, such as solar and nuclear, would also follow this trend, but not at the same rate since they are less dependent on fossil fuel inputs. So the idea is really, with respect to fossil fuels, *"How low can you realistically go?"* I don't want to make any assumptions on what would be happening in the economy as a whole, because in reality the economy would have collapsed under those prices. So my assumption is to simply determine what is within my power to change as fuel prices climb - and I am forced to make difficult choices.

Here is how I think it would affect me. Looking at my own situation, I just bought a house 23.5 miles from my office. However, I did this with my eyes wide open. The fact is, I don't spend much time in the office. Since I started with my new company on March 1st, I have spent just 4 days in the office. So, a long daily commute is not something I have to deal with. In fact, I have never actually made the commute, as the 4 days I spent in the office preceded the purchase of my house. (Presently I am on site at our factory in the Netherlands, and I ride a bike to work).

But, even when I do have to travel to the office, at $100 a gallon, that 47 mile round trip will add up. Even the most fuel efficient cars in the U.S. are going to cost me around $100 for the trip. If I have to make that trip twice a month - and so far I am averaging less than that - it's going to cost me $2400 a year - and that's presuming I have a car that can get 47 miles a gallon.

Clearly, something like an SUV is out of the question. This could cost me $400 every time I had to go to the office. So SUVs, even now in their initial death throes, will be transportation only for the truly rich. What I really want - unless the cost is prohibitive - is the most fuel efficient car I can find. Today, I think that's a Toyota Prius, but I am really hoping that an electric car rides to the rescue. (I would definitely choose the public transportation option if available, but right now it isn't available from my home location to my office).

Even then, $100 to drive in to the office is pretty steep. I want to find a way around that. I am going to lobby my employer for permission to telecommute. At those prices, he is going to get a lot of those requests. When I think about what I do during a typical day, almost everything could be done via telephone, teleconference, webconference, or webcam. And when I do have to go to work, I am going to search for a car pool. At those fuel prices, a lot of people are going to be willing to share rides. I would imagine that new, creative ways of organizing car pools will pop up.

I would completely stop using an auto for short trips, and likely buy a small motorcycle for quick trips within 5 miles. If time is not a factor, I will ride a bike for those short trips. We would have to do a much better job of planning out our groceries, as it won't be economical to run to the store to pick up a few items. Entertainment options like Netflix will start to look a lot more attractive.

In my home, I would also need to make changes. My wife and I currently fight over the thermostat. When I am alone, I will set the thermostat as high as 85 in the summer. With the family at home, I will drop it to 78. The wife and kids like it at 75. (It's just the opposite in winter, with me wearing a jacket around the house). With gas at $100 a gallon and electricity sharply higher, we are going to have to get used to being less comfortable. 82 degrees inside is a lot better than 105 degrees outside. But even so, I would probably face $1,500 a month electric bills.

I am going to install as many solar panels as I can afford, because at these prices the payback period should be very short. Ditto for a solar hot water heater, which keeps beckoning to me, but remains just out of reach. (I have a brand new hot water heater in my new house, and I can't justify replacing it already). Ground source heat pumps are going to look much more attractive. I will need to identify and track the transient electricity drains in the house by installing something like the Kill-A-Watt electricity usage monitors.

My business travel would not be sustainable at those rates. For the next 12 months, I am probably looking at 12 trips just to the Netherlands, and additional trips to China. If those trips are 20 times as expensive, I am going to have to get webcams for everyone on the team, and our "face to face" meetings will happen that way. To me, being on site right now is important, because I get to know people, and they get to know me. I can understand who does what. But after that, I can conduct business remotely. Ultra-expensive fossil fuel prices will force me to see just how effective I can be at doing that.

Other things would obviously be impacted, such as where we decide to vacation, or where to invest any money that might be left over (which lately has been in Brazil). But I think that covers the major items. What have I overlooked?

I am greatly interested in your thoughts. It helps me understand just how we are likely to respond as the going gets tough.