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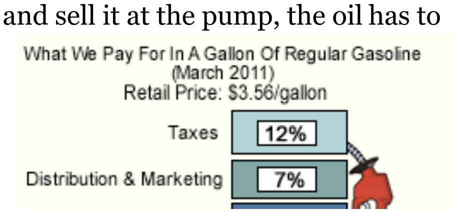
What Determines the Price of Gas: A Visual Guide

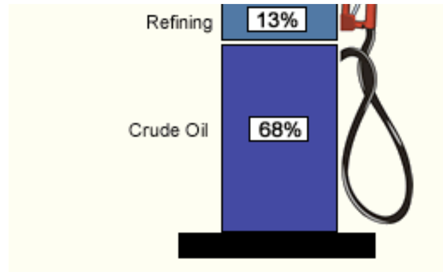
By Derek Thompson

Think the U.S. can drill its way out of expensive gas? Think again.

Gas prices are on a collision path with $4, putting additional burden on an economy that's recovering from a housing bust, credit crunch, and deep recession. What goes into the price of gasoline and why is it rising so fast all of a sudden?

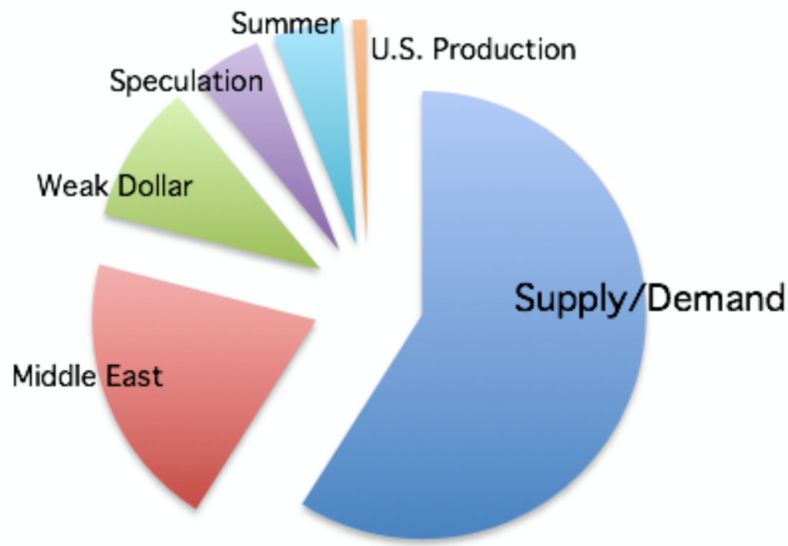
Let's look at the price at the pump. Every year, the U.S. Energy Information Administration breaks down the price of a gallon of gas into four major components: First, there are state and federal gas taxes, which add between 20 and 50 cents to the final price. Second, you have additional costs like distribution, marketing and refining. To turn crude into gasoline and sell it at the pump, the oil has to be refined, shipped by pipeline, loaded into trucks to drive to individual stations, and purchased for resale to the public. Longer shipping routes, more refined gas, and more convenient service station locations are all culprits in higher gas prices.





Fourth, and most importantly, you have the price of crude oil, which has nearly tripled in the last seven years. In 2004, when the average price for crude oil was $37 per barrel, crude composed only 47 percent of the price of regular gasoline. Today, crude is closer to $111 per barrel, composing two-thirds of the price we pay at the pump.

The price of a barrel has increased from $85 to $110 -- a 30% bump -- in just five months. To find out why, I spoke with several energy experts across Washington to build myself a kind of *editorial pie chart*. I'm calling it an editorial pie chart because it is based on the experts' opinion rather than a measured impact, but I think it's a useful way to illustrate the relative importance of each factor.



1. The Supply and Demand Factor. Fuel demand from China, India and Brazil -- three countries with a combined population of 2.7 billion -- is the chief factor behind rising prices. China's fuel demand increased 12 percent in 2010. Meanwhile Saudi oil production has fallen, as AEI's Steve Hayward told me. Perhaps the Saudis are pulling back after overstating their reserves, in which case we're in serious trouble. Or perhaps they're accepting higher prices in the short term to spend more money on their people to avoid a Libya-type revolution, in which case the production shortfall should be temporary. Either way, supply matters and there's less of it.

2. The Middle East. Break the past year in gas prices into three phases. First, in the summer and fall of 2010, gas prices were pretty steady around $2.80. Second, beginning in the late fall, they started to climb gradually for six months. Third, since February, they have increased dramatically. What happened in February? Revolutions swept the Middle East, then Libya descended into civil war and its oil production fell by more than 50%. Ongoing uncertainty about the region continues to push up prices.

3. The Weak Dollar. A falling dollar can be good for Americans. It makes our exports more attractive and imports less attractive, which keeps more money in the U.S. economy. Unfortunately, as the dollar loses value, oil becomes more expensive.

4. The Summer. The EIA estimates that good weather and vacations cause U.S. summer gasoline demand to be 5 percent higher than during the rest of the year. Better weather means more vacations, which means more gasoline use. Think of it as a naturally occurring demand enhancer.

5. The Speculation Factor. Oil speculation -- investors betting up the price of oil in the futures market -- is a controversial factor in rising gas prices, and Hayward doesn't believe it's a deciding factor. Burned by the bust of oil prices in the 2009, it's unlikely that oil speculators are back in the market bidding up the price of crude. But it's a possible, if marginal, factor.

6. The Drill, Drill, Drill Argument. The U.S. can drill all it wants but it's hard to find anybody who expects greater domestic production to move gas prices by more than, say, two percentage points in the next six months. The problem is that the market for oil is global and U.S. supply is too small to make an impact.

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