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THE PRICE OF GASOLINE: HOW HIGH FOR HOW LONG?

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The influence that the price of gasoline has on household activities (such as taking vacations or commuting to work) makes it the most widely covered petroleum product price in the media. In addition, because households cannot easily change the automobiles they own, the ability of consumers to substitute away from a particular level of gasoline consumption is limited, that is, short-run demand is price-inelastic. Thus, when gasoline prices rise, people take notice.

We often see stories in the media that ask the question “Who is to blame for high prices at the pump?” The anger expressed on the local news by the patron of the gasoline station who is upset about the price of gasoline as he fills up his large, low-efficiency sport utility vehicle is almost comical, but his anger is not entirely misguided. The fact is that no single party is to blame for high prices, and understanding why prices are so high is not simple. Thus, rather than point the finger of blame at any one party perhaps it is best to ask, “What can be done to reduce gasoline prices?”

Understanding what to do about higher prices requires an understanding of why prices are high in the first place. The mechanics of retail gasoline prices are fairly straightforward and can be expressed as a sum of crude oil prices, refining costs, state and federal taxes, distribution and marketing costs, and station premiums related to the cost of operation (property lease rates, labor costs, etc.). In fact, research indicates that there is a stable, *long-run* relationship between crude oil and gasoline prices, meaning that the price of crude oil is the single most important determinant of the pump price of gasoline. Of course, crude oil only sets the baseline for gasoline price and does not explain short-term spikes in gasoline price. Higher seasonal demand, low inventories, competition for imports, and reduced operational domestic refinery capacity (due to factors such as hurricanes, for example, which we saw in 2005) can all lead to short-term increases in gasoline prices.

Over the past few years, we have seen the price of crude oil increase almost threefold, which is the primary reason gasoline prices are two times higher today than just five years ago. Much of this can be attributed to strong growth in gasoline demand over the past 15 years. An ancillary impact of strong demand growth has been that seasonal swings in prices have become more pronounced. This is because as demand has grown, neither domestic refinery capacity nor gasoline inventories have appreciably increased. Domestically, refinery capacity is not capable

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of meeting seasonal demand changes because, although capacity has increased by roughly 10 percent in the past 15 years due to expansions at existing refineries, it has not increased enough to keep up with demand. As a result, we have had to rely increasingly on imports to meet seasonal increases in demand. This year, prior to Memorial Day, gasoline prices rose substantially. This was influenced by the fact that the amount of gasoline available for import was reduced due to international refinery problems. In fact, imports were down earlier this year by up to 10 percent versus last year despite the fact that gasoline prices were substantially higher. In sum, strong demand growth along with insufficient inventories and insufficient domestic refinery capacity has resulted in the U.S. gasoline market becoming tighter, with imports playing an increasingly important role in the U.S. supply-demand balance. This, in turn, increased our exposure to factors affecting international refinery capacity and demand. Unfortunately, if things do not change, the trend of higher and more volatile prices will likely become the norm for the foreseeable future, unless concerted intelligent action is taken.

Higher, more volatile prices lead to public outcry, much of which ends up directed at gasoline suppliers in the form of formal investigations and senate hearings. This policy reaction can be a good thing because it can lead to a more informed public and reinforce to suppliers that they should not attempt to manipulate the market, which can be done more easily when the supply-demand balance is tight. But, it is imperative that policy be designed to produce sustainable long-term solutions, regardless of what is politically popular.

The fact of the matter is that there is no single approach to fixing the problem of high gasoline prices. Building more refineries could help to lower domestic gasoline price volatility, but it will not lower the baseline level of gasoline prices. In order to achieve lower prices in the longer term, it is imperative that demand growth in this country be curbed. Many have pointed to growing demand in Asia as the culprit for higher prices, but we consume 33 percent of the world's road transportation fuel and demand continues to grow. Thus, as American demand goes, so goes the world price of oil. Options such as opening the Alaskan National Wildlife Refuge (ANWR) and/or the Outer Continental Shelf (OCS) for drilling and adopting alternative fuels such as ethanol and/or coal-to-liquids are potentially viable supply-side solutions to easing the upward pressure on future oil prices, but they do nothing to stem the tide of demand. Thus, future generations will have to solve the same problems we are talking about today because eventually

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demand will outgrow even those supply options. This is not to say we should not pursue supply-side solutions as part of a portfolio of options; rather, the intelligent approach would be to consider them as part of a broader approach. But, we must recognize that they alone will not solve the problems we are facing.

Perhaps the most powerful tool we have for lowering both the level and volatility of gasoline prices is conservation. For example, if the average American could simply drive 35 fewer miles per week, we could immediately cut national gasoline consumption by 12 percent, or about 1.3 million barrels per day of oil. This would have a staggering effect on the gasoline price. A gasoline tax and higher mandates for fuel efficiency are two means of achieving this goal. Regarding a tax, the price inelasticity of gasoline demand means that the size of the tax necessary to induce a particular reduction in demand is uncertain. In addition, there is concern that a tax could be regressive in the short term, especially for low-income households that have no viable public transportation option. Nevertheless, permanently altering price via a tax would certainly encourage people to increase fuel efficiency and seek alternative transportation options. In regard to current CAFE standards, realizing the effects of higher-efficiency regulations would take time to fully influence consumption (because the standards only apply to new vehicles), but they would ultimately serve to lower demand growth and ease the supply-demand balance. In addition, it is important that any provisions in existing CAFE standards that allow vehicles to receive higher fuel efficiency ratings than what they actually achieve (such as is the case with alternative vehicle credits) be reconsidered for the regulations to have their fully-intended impact.

So what should we take from all of this? A familiar lesson from investment 101: the portfolio approach is best. In this case, a combination of conservation, higher fuel efficiency, alternative fuels, and greater domestic production capacity would lower prices in a sustainable manner. That should be the direction of policy. If not, we should be prepared for gasoline prices to remain high and increasingly volatile for quite some time.