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Economics

Stretched out

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THE pain of high petrol prices is all about the price elasticity of demand. Highly elastic demand (a big quantity response to a price change) suggests there are plentiful available substitutes. If the price of one brand of pencil soars, we'll all just buy other writing implements and no one's much worse off. Inelastic demand means that consumers have few good alternatives in the face of a price increase, but to continue buying as they had before. The classic example economists use is insulin.

That all said, let's go to Andrew Leigh (http://andrewleigh.com/?p=1945) for discussion of petrol and elasticity:

> I was listening the other day to Tony Abbott claiming that the price elasticity of petrol is zero (Joshua Gans quotes (http://economics.com.au/?p=1552) the Coalition’s Greg Hunt making the same claim). It was perhaps the first time that I had heard a politician use the word ‘elasticity’, and it made me wonder whether Abbott was resorting to jargon because it would sound more outlandish to say ‘we don’t believe people buy less petrol when the price goes up’.
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> Anyhow, this struck me as the kind of issue that people have probably researched, and sure enough a quick search turned up a nice meta-analysis by Daniel Graham and Stephen Glaister (http://www.ingentaconnect.com/content/lse/jtep/2002/00000036/00000001/art00001) ...
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> As the authors conclude...a 10% rise in petrol prices reduces petrol demand by 3% in the short-term, and by 6-8% in the long-term. (Although the study isn’t clear on this point, I’m guessing short term is <1 year, and long term is >1 year.)

> Of course, these aren't the first politicians to ignore economic evidence, but this seems to be an instance in which the evidence is simply overwhelming.

What Mr Leigh doesn't mention is that the study to which he alludes shows sharp differences in elasticities across nations. The chart he includes in his post suggests that in the short run, demand for petrol in America is almost perfectly inelastic. Demand responses in Europe in the short run are far more substantial.

But he's right that consumption reponse grows over time. Oil prices have increased steadily for most of the decade now, and the current spike is about a year old. No surprise, then, that petrol purchases are falling, even in automobile dependent America.

(Hat tip: Mark Thoma (http://economistsview.typepad.com/economistsview/2008/06/gas-price-elast.html) ; photo credit: *AP*)