Finance &amp; economics

Free exchange: Everyone has a price

Economists have changed their mind

High energy costs really due reduce use

Across Europe, two questions will set the political weather this winter.

How high will my energy prices go?

And what will the government do to protect me?

Attempting to shelter from the gathering storm, French and Spanish politicians, among others, have already capped or otherwise lowered gas and electricity prices.

With wholesale gas futures for early 2023 still climbing—up to more than ?300 ($299) per MWh, from less than ?30 last summer—and Europe’s economic indicators blinking red, more will follow suit.

That prospect is enough to drive economists to despair.

Politicians want to protect voters from big bills, but also need to cut energy use, so as to avoid blackouts and reduce Russia’s oil-and-gas revenues.

Price caps help voters, but do so inefficiently and reduce the incentive to cut energy use.

Until recently, however, economists would have said that their impact on fuel consumption was minor and their impact on gas consumption uncertain.

A body of research had found that consumers were largely unresponsive to higher petrol prices: they need to drive to work, and will do so even if expensive.

In this analysis, capping prices would not make a huge difference to energy consumption.

Yet a new batch of studies have overturned the conventional view, suggesting prices really do matter.

The difference reflects a change in research methods.

The earlier generation of studies analysed aggregate data, such as weekly sales and prices in a region, not demand from individual consumers or even driving patterns.

This is a problem because crucial information gets lost when aggregating data.

A mild increase in the weekly average price could hide a drop at the start of the week.

If that drop encourages more demand, an aggregate analysis might find that a higher price leads to more consumption, not less.

And prices at the pump are not set in isolation.

They respond to demand, making the price-demand relationship two-way.

Disentangling this is tricky.

More recent research analysing micro data has produced striking results.

To assess how consumers react to higher petrol prices, Laurence Levin of Visa, a payments firm, and co-authors looked at daily card transactions from 243 American cities in the late 2000s.

They found a sizeable response.

For a 10% rise in petrol prices, consumption fell by about 3%.

They also showed that, if they had used aggregate data, they would have concluded there had been a much smaller drop.

Christopher Knittel of the Massachusetts Institute of Technology and Shinsuke Tanaka of Tufts University used even more granular data, looking at a Japanese fuel-economy app, and found similar results with one extra detail: drivers not only responded to higher prices by driving less, they also drove more carefully to save fuel

财经板块

自由交流：人人都得付出代价

经济学家已经改变了想法

能源价格高到真的应该减少能源消耗了

整个欧洲今年冬天的政治形势将由以下两个问题决定。

能源价格会涨到多高？

政府会采取什么保护措施？

为了躲避这场即将到来的风暴，法国和西班牙等国的政界人士已经设定了天然气和电力价格的上限，或以其他方式降低了价格。

由于2023年初的天然气批发期货价格仍在攀升--从去年夏天的每兆瓦时不到30欧元涨至300欧元(299美元)以上--再加上欧洲的经济指标也在亮红灯，更多能源的价格也会受到调整。

这种前景足以让经济学家感到绝望。

政客们希望保护选民免受巨额账单的影响，但也需要减少能源消耗，以避免停电并减少俄罗斯的石油和天然气收入。

设定价格上限是能帮助到选民，但效率很低，而且还会降低人们减少能源消耗的积极性。

然而，经济学家们称，设定价格上限对燃料消耗的影响微乎其微，对汽油消耗的影响也不能确定，直到最近他们才改口。

以往有大量研究发现，消费者对油价上涨基本没什么反应：他们需要开车上班，即使油价很高也会开。

这种分析表明，限制价格不会对能源消耗产生多大影响。

然而，一批新的研究推翻了传统观点，表明价格确实有重大影响。

这种差异反映了研究方法的变化。

前一代研究分析的是总体数据，例如一个地区每周的销售额和价格，而不是单个消费者的需求，甚至是驾驶模式。

这之所以是个问题，是因为在聚合数据时会丢失关键信息。

哪怕是每周平均价格的小幅上涨都可能会掩盖一周开始时的下跌。

如果这个下跌鼓励了更多的需求，那么综合分析得出的结论可能就会是，更高的价格不会抑制消费，反而会促进消费。

加油站的价格也不是独立设定的。

而是随需求变动，使得价格与需求互相影响。

解决这一问题并不容易。

更多分析微观数据的最新研究已经产生了不同于以往的结果。

为了评估消费者对汽油价格上涨的反应，支付公司Visa的劳伦斯·莱文和其合著者研究了本世纪头十年末美国243个城市的每日信用卡交易情况。

他们发现汽油价格上涨在当时引起了相当大的反响。

汽油价格上涨10%，就会导致消费量下降约3%。

他们还表明，如果他们当时研究的是总体数据，结论中的降幅要小得多。

麻省理工学院的克里斯托弗·尼特尔和塔夫茨大学的田中信介使用了更精细的数据，他们研究了日本的一款燃油经济性应用程序，得出的结果与之前相似，但多了一个细节：油价更高时，司机不仅会少开车，还会为了省油在开车时更加小心。