Presidents, Prices at the Pump, and the Difference in Perceptions between Energy Market Experts and Non-Experts

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Overview

Economic narratives, whether true, false, or somewhere in between, substantially influence individual and collective decision making. In the United States, one of the most widely repeated, persistent, and influential economic narratives of the past several decades is that the US President can directly affect the domestic retail price of gasoline through deliberate policy choices. Presidents often claim credit when gasoline prices are low or falling, whereas their opponents or detractors are quick to blame them when gasoline prices are high or rising.

We conduct a survey of US-based energy market experts and non-experts and find that non-experts are significantly more likely to believe the US President plays a major role in determining retail fuel prices. Next, we analyze weekly retail gasoline and diesel price data from the US, UK, France, and Canada under different heads of state. After controlling for fluctuations in the wholesale crude oil price, country-specific long-run averages in prices, common time shocks, and national fuel excise taxes, we find that fuel prices differ significantly across leaders. Although we do not claim to have established a causal link between executive regime change and retail fuel price variation, our fuel price analysis does help explain why many people believe political executives can influence retail gasoline prices. We also make a call to economists to fill the notable gap in the economic and policy research on the influence of executive action on retail fuel prices and to look for other potential gaps by paying closer attention to similarly prominent economic narratives.

Methods

First, to establish evidence of a difference in perceptions between experts and non-experts regarding the President's ability to influence domestic retail gasoline and diesel prices, we conducted a short survey asking US-based respondents two questions about retail vehicle fuel prices. The first asked, “How much influence do you think the United States President has over the domestic retail prices of unleaded gasoline and diesel fuel?” Second, we asked, “Do you think the current price of gasoline is too high, too low, or about right?” Additionally, we asked respondents several questions about driving behavior, vehicle type, and monthly fuel expenditures, as well as demographics and political attitudes. The survey took place in March 2023, during a period of relatively high US gasoline prices ($3.30/gal, national average), following historically high peak prices in summer 2022 ($4.80/gal). Our sample totals 1,234 respondents. 1,018 were commissioned directly from the online survey service, Qualtrics, which used quotas to ensure a nationally representative sample. We augmented this with another 216 respondents, identified through membership in major US associations of professional energy and environmental/resource economists, similar to the sampling approach used in prior survey-based studies of expert opinion on economic issues. Categorization of each respondent as an expert or non-expert on energy markets was based on stated occupation. We asked, “Which of the following best describes your occupation?” Possible answers were, “Academic, government, or non-profit research economist;” “Energy industry professional;” or “Other (neither of the above).” Respondents who selected one of the first two choices were categorized as experts, and all others as non-experts. Survey results are described below.

We then employ straightforward econometric analyses to determine whether weekly gasoline and diesel price markups above the crude oil price (in constant 2022 USD) vary on average for different leaders of the US, Canada, France, and the UK over the period 2003-2022. First, we pool the data from each country over the whole sample period and compare fuel price markups under each leader to a base period by estimating coefficients on indicator variables for each leader, controlling for time and country indicators. Estimates are interpreted as the difference in average fuel markup for each leader relative to the base period after netting out country-specific average markups and common time shocks. Next, we analyze each leadership transition as a separate natural experiment, comparing the fuel price markup in that country with the other countries during the period when no other leadership changes occurred. These estimates are interpreted as the difference in average fuel price markups for each leader relative to the previous leader after controlling for country-specific averages and common time shocks. Additionally, we repeat

the above analyses after controlling for national fuel excise taxes. We also conduct placebo tests and provide additional corroborating evidence to link our econometric investigation of retail fuel prices to the results of our survey.

Results

Survey results: We find clear differences in mean responses across the expert and non-expert groups to our main survey question regarding the extent to which the President can influence domestic retail gasonline and diesel prices. For experts, the distribution is strongly skewed toward a perception of lower influence. The modal response was "Very little influence" (50.3%) and another 6.8% perceive the President to have no influence at all. By contrast, the modal response for non-experts was "Moderate influence" (32.75%), and responses were nearly evenly distributed around the mean. Only 33.1% of non-experts perceive the President to have little or no influence over retail fuel prices. Formal statistical tests of mean responses, both with and without controls for demographic characteristics and driving behavior, show the difference in mean responses across groups is strongly statistically significant. Compared to non-experts, experts on average perceive the US President as having significantly less influence over retail gasoline and diesel prices.

Fuel price analysis results: In our pooled models without leader-specific fixed effects, we find that country- and time-specific fixed effects alone explain over 95% of the observed variation in gasoline and diesel markups. Adding leader fixed effects does explain some residual variation (R-squared values increase to nearly 0.99). We find that 9 of 13 leader estimates are statistically significant ($p < 0.05$) for gasoline, and 8 of 13 leader estimates are statistically significant for diesel. These estimates are economically significant. For example, increases in both Trump- and Biden-era gasoline markups were around 10-12% of contemporaneous retail prices. Similarly, the increase in French gasoline price markups under Sarkozy was 6% of the average French gasoline price, and in Canada the increase in gasoline price markups under Trudeau was 12% of the average Canadian gasoline price. Next, in our leadership transition approach, we find that 9 of 13 leadership change estimates are statistically significant for gasoline, and 11 of 13 are statistically significant for diesel. For example, in the US, gasoline and diesel price markups increased by 12% and 15%, respectively, from GW Bush to Obama. In the UK, markups decreased by 9% for each fuel under May compared to Cameron. When repeating the above analyses after controlling for national-level fuel excise taxes, point estimates across both specifications change substantially, but most are still statistically significant. This suggests that differences in (real) excise taxes contribute to differences across leaders in fuel price markups but are not the only mechanism through which leaders can influence retail fuel prices.

Conclusions

Heads-of-state are highly visible in communicating economic policy objectives to their national electorates. These leaders command attention of the media and have the ability to influence economic narratives that affect aggregate behavior in meaningful ways. One such narrative that has prevailed in the US for decades is that the President can directly influence the retail prices of gasoline and diesel fuel. Presidents claim credit for low fuel prices but also draw criticism and blame when fuel prices are high.

In this paper, we first present survey evidence that 'experts' like energy economists and energy industry professionals tend to be significantly more skeptical of such claims than non-experts. Our fuel price analyses find statistically significant differences in average gasoline and diesel prices across many (but not all) national leaders, even after accounting for variation in the world crude price, common time shocks, country fixed effects, and excise tax changes. Although we emphasize that these differences across executive leadership cannot be attributed directly to policy actions, our analysis generally explains why so many people believe that national executives have some influence over retail fuel prices. Moreover, our review of the literature uncovers a glaring lack of economic and policy research on this question—one that we argue should be filled. Perhaps surprisingly, the results of our fuel price analyses appear more consistent with the modal perceptions of non-experts than of experts like energy economists and energy industry professionals. Given the significant gap in the literature noted above, this misalignment between expert perceptions and our econometric results is concerning. It suggests important questions about the effects of executive policy on vehicle fuel markets may have been unduly ignored in energy market research thus far. Our results suggest that energy economists and other energy market experts should be more open to studying the pathways through which domestic retail fuel prices are affected by executive policy choices, as such effects have important and wide-ranging economic and political consequences.