

# Intelligence MEMOS



From: Sumeet Gulati, Carol McAusland and James Sallee  
To: Provincial Ministers of Transportation  
Date: January 10, 2018  
Re: **“HEAT MY SEATS” - HOW CANADIANS SPEND THEIR HYBRID VEHICLE REBATES**

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Ontario, Quebec and British Columbia, have offered rebates and subsidies for hybrid cars for more than a decade. We reviewed more than 120,000 transactions, representing about 20 per cent of new vehicle sales between 2004 and 2010, which included the sales of 9,600 hybrids.

Consumer behaviour was interesting and consistent. First, buyers chose to buy nicer cars on receiving the subsidies. This implies that the price of what they buy rises, providing benefits to producers and dealers as well. Second, they haggle less with the dealer on the sales floor. What they may lose in price, thereby, is repaid in the avoided aggravation of the negotiating process.

This is likely because a rebate shrinks the tax-inclusive value, of any discount achieved, making haggling less productive, and it enriches the consumer, who uses the windfall to get more of what she likes, plus freedom from haggling. Some options come pre-installed, which means consumers can negotiate over the entire package. Many options are add-ons. This means the consumer anticipates how much she'd haggle and pay for each package and then decides which package to purchase. In this context, an increase in rebate rate raises the probability of buying a more expensive package, increasing vehicle cost, which raises the pre-tax transaction price and boosts the dealer's opportunity cost.

So, in the end, tax rebates are effectively subsidizing the purchase of options unrelated to fuel economy. Is this a good use of scarce public funds? Some upgrades actually reduce fuel efficiency. During our sample period, leading hybrid electric vehicles were only sold as single trim models.

Today, by contrast, a Toyota Camry hybrid comes in two versions: entry-level LE trim gets 43 miles per gallon (city driving) while the luxury (XLE) gets 40 mpg. The XLE requires 7.5 percent more fuel for city driving because of larger wheels and electronically controlled seats.

To summarize then: transaction prices rise by more than 50 per cent of any subsidy and two-thirds of the rise in the transaction price is attributable to higher vehicle cost because of upgrading. Less than 15 percent of the subsidy goes to dealers in form of higher margins. And the effect appears to be consistent: an increase in subsidy increases the options selected and the ultimate pre-tax transaction price and dealer margin. And when the subsidy goes down the haggling effect goes up.

*Sumeet Gulati, is an associate professor in environmental and resource economics at the University of British Columbia, Carol McAusland is Canada Research Chair in trade and environment and associate professor, food and resource economics at UBC, and James Sallee is an assistant professor in agricultural and resources economics at the University of California, Berkeley.*

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