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Revisiting the Impact of Rising Gasoline Prices on Swedish Households

Sweden has a long-standing tradition of fuel taxation, but recent shifts in transport policy have significantly altered the cost of driving. This policy brief examines the impact of gasoline tax cuts and reductions in biofuel mandates introduced between May 2022 and January 2024. These measures, alongside a drop in global crude oil prices, have led to a 34 percent decline in pump prices, bringing the cost of driving to one of its lowest levels in the past 25 years. Using a comparative analysis with Denmark, the brief quantifies the impact of the tax cuts and biofuel policy changes, showing how they kept fuel prices lower. However, these short-term financial benefits have broader implications. Lower gasoline taxes have increased household exposure to crude oil price volatility and slowed electric vehicle adoption, reversing progress toward Sweden's long-term climate targets. Given these trade-offs, the brief argues for a reassessment of transport policies to balance affordability with long-term environmental sustainability.

The Cost of Driving in Sweden

Sweden has a long history of fuel taxation, having introduced an excise tax on gasoline in 1924. For over seventy years (1951–2021), the nominal tax rate steadily increased without significant reductions. This trend stopped in 2022, when the first of a series of tax cuts was implemented on May 1. This shift in transport policy came in response to a 60 percent surge in gasoline prices between early 2021 and mid-2022. This price spike was driven by pandemic-related supply-chain issues and Russia's invasion of Ukraine in February 2022. Moreover, the 2022 elections in Sweden, which brought a conservative coalition to power, further transformed transport policy, as the new government had campaigned on reducing pump prices.

In 2022, Celina Tippmann and I published two policy briefs on the impact of surging gasoline prices in Sweden. The first, titled *The Impact of Rising Gasoline Prices on Swedish Households – Is This Time Different?*, found that despite record-high real gasoline prices, driving was historically affordable due to improved fuel efficiency and rising real wages over the past three decades. The second brief, *Who Benefitted from the Gasoline Tax Cut in Sweden?*, examined Sweden's first major gasoline tax cut in decades, implemented on May 1, 2022 in response to the surging price. We found that the tax cut was fully passed through to consumers but likely caused spill-over effects that raised gasoline prices in neighboring countries, shifting part of the burden onto their households.

In this brief, I analyze the developments since the May 2022 gasoline tax cut. This tax cut marked the beginning of significant changes to Sweden's transport policies. While a part of the May tax cut was reversed by design (the majority of the 1.81 SEK (€0.17) per liter tax cut expired by October 2022), it was followed by the removal of subsidies for electric vehicles in November 2022 and additional tax cuts; one tax cut on January 1st, 2023, and a further reduction in gasoline tax rates on January 1st, 2024, alongside a lower biofuel

mandate. Meanwhile, global crude oil prices dropped by more than a third since their June 2022 peak. Together, these changes have likely reduced the cost of driving using gasoline and diesel and created a relative cost advantage for vehicles with internal combustion engines.

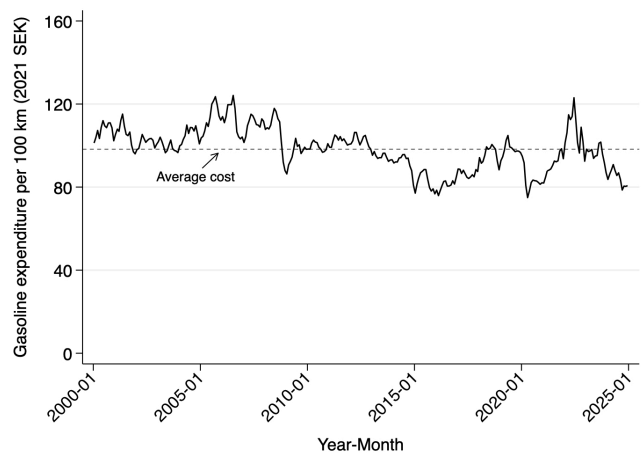
Figure 1. Gasoline pump price: 2000-2024



Source: Monthly data on gasoline prices are provided by Drivkraft Sverige (2025).

Figure 1 illustrates the dramatic price movements over the last couple of years. After the sharp increase in gasoline prices from early 2021 to mid-2022, the subsequent drop has been equally dramatic. Since June 2022, pump prices have fallen by 34 percent, bringing real gasoline prices just below the 25-year average of 15 SEK per liter.

Figure 2. Gasoline expenditure per 100 km



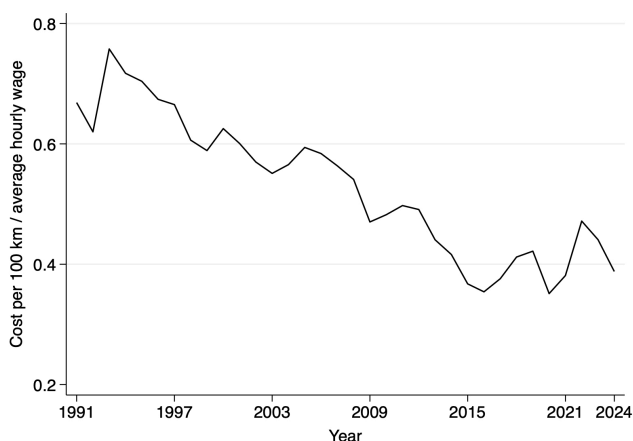
Source: Trafikverket (2022) and Drivkraft Sverige (2025).



Furthermore, the recent drop in driving costs is even more dramatic if we factor in improvements in average fuel efficiency over time. New vehicles sold in Sweden today can drive 50 percent further on a liter of gasoline compared to the year 2000. Accounting for this, Figure 2 shows that the cost of driving is now 20 percent below the average cost over the last 25 years.

Lastly, real wage growth has further enhanced affordability of driving. Since 1991, average real wages in Sweden have risen by nearly 60 percent. As a result, the cost of driving, measured as a share of income, has steadily declined. Figure 3 shows a temporary increase in driving costs in 2022, but today, households spend less than 40 percent of an hourly wage to drive 100 kilometers – a near-historic low.

Figure 3. Cost of driving as share of income



Source: Data on average hourly real wages are provided by Statistics Sweden (2025).

The Cost in the Counterfactual Scenario

While Figures 1–3 show the evolution of driving costs, they do not isolate the impact of recent transport policies. The causal effect of the tax cuts and changes to the biofuel mandate hinges on the pass-through rate to consumers and how much of the benefit of the policy changes that have been captured by producers. In addition, we need to separate the price change that is due to policy

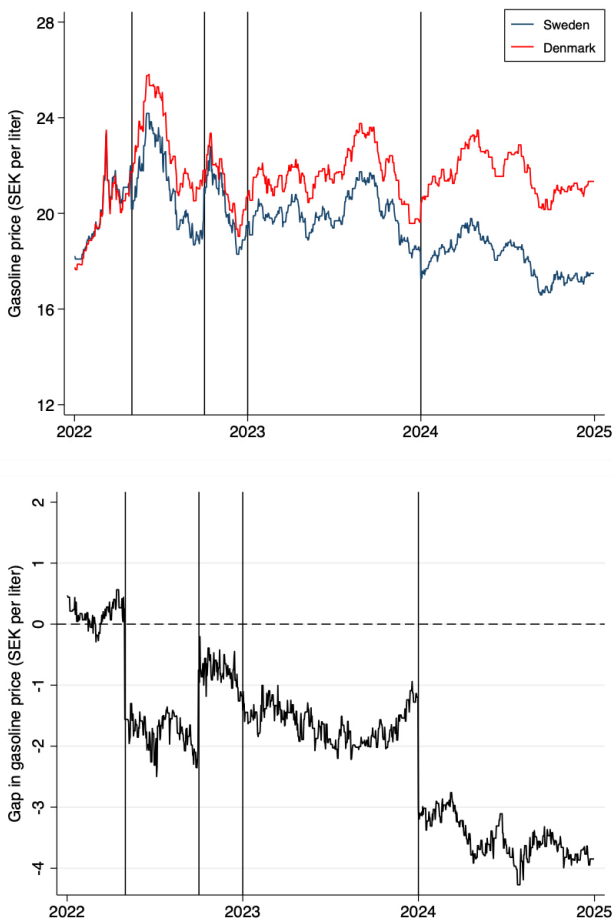
changes from the part that is due to the falling crude oil price.

Two strategies are available to estimate the pass-through rate to households. The first involves using price elasticities of demand and supply for gasoline, where the relatively inelastic side captures most of the benefit from a tax reduction (Andersson and Tippmann, 2022). However, the unusual conditions in the gasoline market over the past few years – characterized by supply restrictions from underinvestment during the pandemic, sanctions on Russia following its invasion of Ukraine, and shifts in consumer travel behavior – have made elasticity estimates from historical data less reliable for assessing tax incidence today.

The second approach involves comparative analysis, examining the evolution of gasoline pump prices in Sweden against those in a “twin” country – one similar to Sweden but unaffected by recent transport fuel policy changes. This is the method I adopt in this brief. A benefit of using a comparative analysis is that the crude oil price is not a confounder as it affects the gasoline price in the comparison country equally. I selected Denmark as the comparison unit due to its geographical proximity, socio-economic similarity, and minimal changes to gasoline tax rates over the past two and a half years (Drivkraft Danmark, 2025).



Figure 4. Gasoline pump price 2022-2024



Note: Gasoline prices in Sweden and Denmark are provided by CircleK (2025). Daily exchange rates are provided by Riksbanken (2025). The horizontal lines indicate the four tax changes over the sample period.

Figure 4 shows that nominal gasoline prices in Sweden and Denmark closely tracked each other until the first tax cut on May 1, 2022. Following the tax cut, Sweden's prices fell by an amount roughly equivalent to the tax cut. When part of this initial tax reduction was reversed on October 1, 2022, the price gap narrowed before widening again due to a new tax cut on January 1, 2023. The gap widened further at the start of 2024 with another tax cut and a reduction in the biofuel mandate (biofuel is typically much more expensive than crude oil). In total, the pump price in Sweden fell by more than 3 SEK relative to the counterfactual scenario. With a full pass-through of the tax cuts to consumers, approximately half of this reduction is attributed to the tax cuts, with the other half resulting from

the reduced biofuel mandate (Andersson and Tippman, 2022).

It may seem surprising that a reduction of the biofuel mandate from 7.8 percent to 6 percent has such a significant impact on the pump price in Sweden. However, one needs to account for the indirect effect on the price of biofuel itself from a reduction in its demand. Sweden also reduced its biofuel mandate for diesel, from 30.5 percent to 6 percent, a far more drastic cut. Together, these reductions significantly lowered biofuel demand, likely driving down biofuel prices in the market and amplifying their impact on pump prices.

Conclusion

The cost of driving in Sweden is at a historic low. Over the past two and a half years, tax cuts and reductions in the biofuel mandate have significantly lowered pump prices, with the benefits passed directly to consumers. Compared to a scenario with no policy changes, Swedish households now enjoy drastically reduced costs at the pump. However, these short-term benefits come with a long-term risk that warrant careful consideration.

In our first policy brief in 2022, Celina Tippmann and I cautioned that reducing gasoline tax rates could encourage households to purchase less fuel-efficient vehicles, leaving them more vulnerable to future crude oil price spikes. Previously, excise taxes – comprising more than half of Sweden's pump price – acted as a buffer against global oil price volatility. Lower fuel taxes now mean crude oil prices make up a larger share of the pump price, increasing price volatility and household exposure to market fluctuations.

Emerging evidence suggests that households are responding to the latest policy changes as anticipated. In 2024, the share of electric vehicles in new car sales dropped for the first time in years, from 38.7 percent to 35 percent, while average carbon emissions from new vehicles increased by 5 percent (Mobility Sweden, 2025), breaking a long-run downwards trend. This reversal of



progress in emissions reductions makes achieving Sweden's 2030 climate target – a 70 percent reduction in transport sector carbon emissions relative to 2010 – significantly more challenging.

While the election campaign promise from the conservative coalition of reducing gasoline prices may have been politically and electorally effective, its consequences on the transport market are becoming clearer. Swedish households have become more vulnerable to crude oil price volatility as they are buying less fuel-efficient vehicles, and progress toward emission reduction goals has stalled. As such, it is time for a more ambitious climate policy in the transport sector. Sweden should consider reintroducing higher gasoline tax rates and strengthening financial support for electric vehicle adoption. These measures would help balance the affordability of driving with the urgent need to meet climate objectives.

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