Who benefits from suspending fuel excise taxes in the Philippines?

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March 31, 2026

UPSE Policy Note; comments are most welcome

Abstract

Using the 2023 Family Income and Expenditure Survey and the 2022 Philippines input-output table, I show that suspending fuel excise taxes is a poorly targeted way to help the poor. The bottom 30 percent of households capture only 17 percent of forgone gasoline excise revenue and 2.5 percent of forgone diesel excise revenue, while the top 30 percent capture 48 percent and 85 percent, respectively. Poorer households are more exposed to fuel price increases through indirect channels—food, public transport, and electricity—but blanket excise suspension addresses this exposure inefficiently. Comparing excise removal against a revenue-neutral alternative (i.e., retaining the excise and redistributing collections as progressive cash transfers), the latter dominates on distributional grounds. Simulations show that targeted redistribution delivers several times more to the bottom of the income distribution than blanket suspension.

Keywords: fuel excise tax, distributional incidence, input-output analysis, Philippines, TRAIN law
JEL classification: H22, H23, Q48, D31

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1 Introduction

The Philippines, as a net oil importer, is periodically exposed to global fuel price shocks. The most recent episode—the 2026 disruption of flows through the Strait of Hormuz, which pushed crude oil prices above $100 per barrel—has renewed pressure on household budgets, transport costs, and food prices. But the underlying policy question is not new: every major oil price spike since the passage of RA 10963 has reignited debate over whether fuel excise taxes should be suspended.

The domestic policy response has been swift. In March 2026, Congress passed and transmitted to the President a measure authorizing the suspension or reduction of fuel excise taxes when Dubai crude exceeds $80 per barrel or during a declared national emergency. Under RA 10963 (Tax Reform for Acceleration and Inclusion, or TRAIN), excise taxes are set at PHP 10 per liter on gasoline and PHP 6 per liter on diesel. A full suspension would lower pump prices by roughly PHP 6–10 per liter, but the Department of Finance has estimated the revenue loss at approximately PHP 136 billion for 2026 if the suspension takes effect by May. The debate is therefore not only about whether suspension helps households, but whether the fiscal cost is justified given who actually benefits. This is not a new question: when oil prices surged in 2022 amid the Russia–Ukraine conflict, the Department of Finance argued against suspension on distributional grounds, proposing instead PHP 33 billion in targeted cash transfers to the bottom 50 percent of households.[1]

This note is primarily about whether fuel excise suspension is a well-targeted household relief measure. Using the 2023 Family Income and Expenditure Survey (FIES), I show who gains directly when pump prices fall because excise taxes are removed. The answer depends not only on who benefits directly from lower pump prices, but also on which households are exposed to fuel-related increases in essential goods and services. To address that second dimension, I use the 2022 Philippines input-output (IO) table to trace how a fuel price shock propagates through the production structure of the economy. Finally, I compare excise removal head-to-head against a revenue-neutral alternative: retaining the excise and redistributing the collections as progressive cash transfers to the poorest households. This scenario comparison shows that, using the same fiscal envelope, targeted redistribution delivers several times more to the bottom of the income distribution than blanket suspension. The broader question of how oil price inflation transmits through the economy and affects household welfare is important in its own right, but is treated here only in a limited, first-round way; a fuller treatment is left for separate work.

[1] Department of Finance, "Suspending fuel excise tax to benefit rich, not poor families; better to give P33-B cash aid to low-income, vulnerable sectors," press release, 16 March 2022.

2 Related literature

The distributional incidence of fuel taxes has been studied extensively, with a key finding being that conclusions depend heavily on the welfare measure used. Poterba (1991) showed that the gasoline tax in the United States appears far less regressive—and may even be roughly proportional—when incidence is measured against total expenditure rather than annual income. This insight has shaped much of the subsequent literature.

For developing countries, the evidence tilts toward progressivity. Sterner (2012) assembled evidence from over two dozen countries and concluded that fuel taxation is generally progressive in low-income settings, because vehicle ownership and direct fuel consumption are concentrated among wealthier households. Arze del Granado et al. (2012) reviewed 20 developing countries and found that the top income quintile captures six times more in fuel subsidies than the bottom quintile. Country-specific studies reinforce this: Agostini and Jiménez (2015) found the gasoline tax in Chile to be slightly progressive, while Blackman et al. (2010) decomposed fuel tax incidence in Costa Rica and found that the direct effect through gasoline is progressive, though the indirect effect through diesel-dependent bus fares is regressive—a finding that closely parallels the results in this note. Coady et al. (2017) emphasized that in many developing countries, the poor are insulated from direct fuel price changes but exposed through higher prices for food, transport, and electricity. The IO-based approach used here follows this logic.

In the Philippine context, the distributional effects of TRAIN's fuel excise taxes have been examined by the Philippine Institute for Development Studies. Castillo et al. (2019a) used the 2012 IO table to trace how the TRAIN fuel excise increases raised sectoral prices, finding modest but broad-based effects on food, transport, and electricity. A companion study, Castillo et al. (2019b), estimated that the excise tax increases slightly raised poverty incidence, particularly among farmers and transport workers, but that the accompanying unconditional cash transfers partially offset the impact. In a more comprehensive assessment, Tuaño et al. (2021) combined environmental, sectoral, and household welfare analysis of TRAIN's coal and petroleum excise taxes, finding that while the taxes generated environmental benefits, their welfare costs fell disproportionately on lower-income households through indirect price channels. The Department of Finance itself argued in 2022 that suspending fuel excise taxes would disproportionately benefit the top 10 percent of households—who account for an estimated 48.8 percent of total fuel consumption—while the bottom 50 percent consume only 13.9 percent.[2] This note complements and updates that body of work by combin-

[2]Department of Finance, press release, 16 March 2022.

ing the most recent FIES data (2023) with the most recent IO table (2022) to provide a unified distributional picture of both direct and indirect channels.

3 Empirical strategy

3.1 Data

The household side uses the 2023 Family Income and Expenditure Survey (FIES) public use file, published by the Philippine Statistics Authority (PSA).[3] All estimates are weighted by the household sampling weight, and households are grouped by national per capita income decile. Decile 1 is the poorest 10 percent of the population and decile 10 is the richest.

The indirect price analysis uses the 2022 Philippines input-output table published by the Asian Development Bank (ADB).[4] This table provides the intermediate input coefficients needed to trace how a fuel price shock raises production costs across sectors.

3.2 Direct incidence

Using FIES 2023, I tabulate who buys gasoline and diesel directly, and therefore who captures the benefit of a tax suspension. This covers levels of spending, budget shares, and the cumulative concentration of fuel expenditure across deciles. The concentration analysis shows what share of total national fuel spending is accounted for by each decile, which directly translates into who captures what share of forgone excise revenue under a blanket suspension.

3.3 Supplementary exercise: Input-output-based pass-through

To understand why blanket suspension is a poor substitute for targeted relief, I supplement the direct-incidence analysis with a first-round input-output exercise. The indirect effects are estimated in three steps:

1. Start with the 2022 Philippines IO table and impose a 10 percent increase in the price of refined petroleum.

[3] Freely available from the PSA website: https://psada.psa.gov.ph/catalog/Household-based_Surveys/about.

[4] Source: https://data.adb.org/dataset/philippines-input-output-economic-indicators.

2. Use the IO technical coefficients to trace how that higher fuel cost raises the production cost of other sectors—food manufacturing, land transport, electricity generation, and so on.

3. Map those sector-level price increases onto actual household spending patterns from FIES 2023 to estimate how much each decile's budget is affected.

This is a partial-equilibrium, first-round cost pass-through exercise. It shows how fuel costs ripple into household budgets under the assumption that producers pass on higher input costs fully and immediately. It does not model longer-run substitution, wage effects, demand responses, or behavioral adjustment. The full pass-through assumption pushes the estimates upward, but the partial coverage of household spending categories (described below) pushes them downward. The net direction of bias is ambiguous, and the results are therefore best read as a first-round approximation of the indirect channel rather than a strict bound in either direction.

Two further points bear on interpretation. First, the exercise simulates a 10 percent increase in global refined petroleum prices, not the removal of a domestic excise tax. These are related but not identical counterfactuals: one is a supply shock, the other a tax change. The indirect-channel results are used here to identify which household budgets are most exposed to fuel-linked price pass-through, not to estimate the exact welfare effect of excise suspension.

Second, the indirect-incidence mapping covers about 62.4 percent of the budget of decile 1 but only 33.8 percent of the budget of decile 10. The difference arises because poorer households spend more on items that map cleanly to IO sectors (food, transport, electricity), while richer households allocate more to items that are harder to map (housing, financial services, education). This differential coverage means the indirect estimates capture more of the channels relevant to poorer households, which is appropriate for the policy question at hand but means the decile comparison should be read with care. Appendix Table 2 documents the concordance between FIES expenditure categories and IO sectors.

4 Results

4.1 How much do Filipino households spend on fuel?

The weighted national mean household expenditure on gasoline is PHP 6,487 per year, and on diesel PHP 1,644. Combined, fuel accounts for about 3.15 percent of

total household expenditure. Gasoline dominates, representing roughly 80 percent of household fuel spending.

These averages mask enormous heterogeneity. Only 57.8 percent of households report any gasoline expenditure at all, and just 8.7 percent report diesel expenditure. Among gasoline users, mean annual spending is PHP 11,215; among diesel users, it is PHP 18,898. The typical household in the bottom three deciles spends very little on fuel—PHP 502 per person per year on gasoline and PHP 16 per person on diesel in decile 1, compared to PHP 5,079 and PHP 2,981 respectively in decile 10.

4.2 Fuel consumption rises steeply with income

Mean gasoline spending increases from PHP 2,888 in decile 1 to PHP 13,826 in decile 10, a ratio of 4.8 to 1. This is slightly higher than the decile 10-to-decile 1 ratio for total expenditure (4.3 to 1), meaning gasoline is mildly luxury-like in absolute terms.

Diesel is far more concentrated. Mean diesel spending goes from PHP 92 in decile 1 to PHP 8,876 in decile 10—a ratio of 97 to 1. This extreme concentration reflects the fact that diesel consumption is tied to vehicle ownership (SUVs, trucks, generators), which is almost exclusively an upper-income phenomenon.

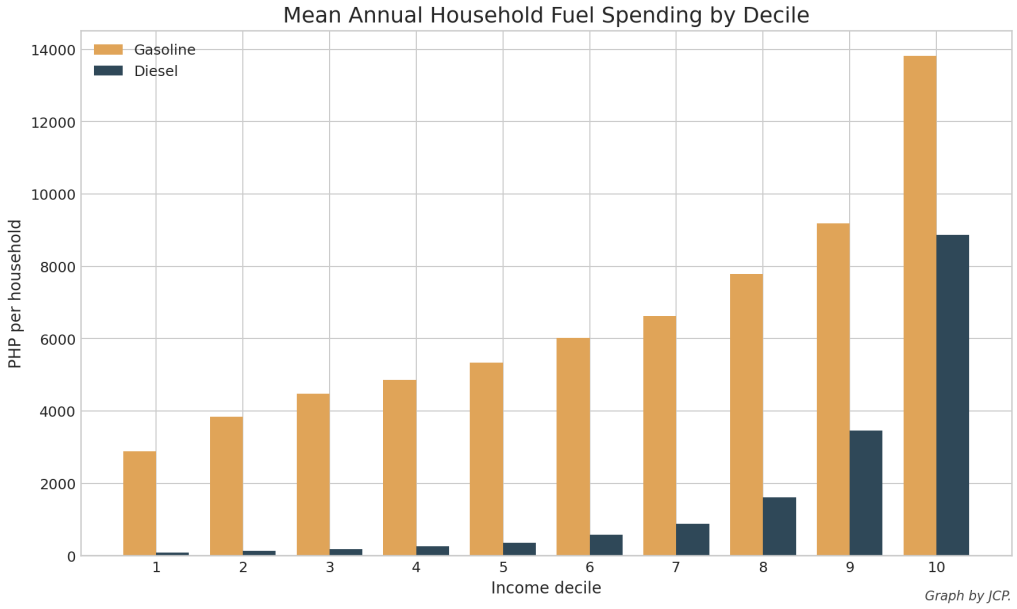

Figure 1: Mean annual household fuel spending by income decile. Fuel spending rises sharply with income, especially for diesel. Source: FIES 2023.

4.3 Budget shares tell a different story for gasoline

Gasoline's share of total expenditure is remarkably flat across the income distribution: it ranges from 2.26 percent in decile 1 to about 2.60 percent in decile 3, and hovers around 2.5 percent across all deciles. In proportional terms, gasoline is roughly unit-elastic—neither clearly progressive nor regressive as a share of the household budget. This is consistent with the finding in Poterba (1991) that the gasoline tax looks less regressive when measured against expenditure rather than income.

Diesel's budget share, by contrast, rises steeply: from 0.07 percent in decile 1 to 1.63 percent in decile 10. This makes diesel expenditure clearly progressive in proportional terms.

This distinction matters. A flat-rate excise tax on gasoline is roughly proportional to expenditure—it takes the same share from rich and poor households. A diesel excise is progressive, taking a larger share from richer households. Suspending either tax would therefore not be a pro-poor measure in relative terms, and in absolute terms, it would be strongly regressive.

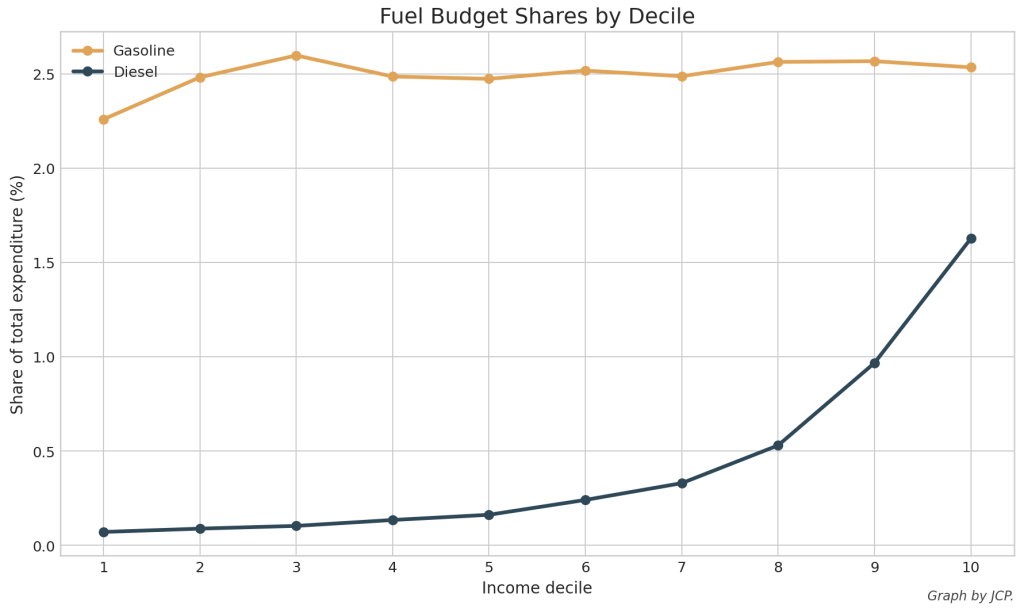

Figure 2: Fuel budget shares by income decile. Gasoline's share is fairly flat across deciles, while diesel becomes much more important higher up the distribution. Source: FIES 2023.

4.4 Who captures the benefit of a suspension?

If a fuel excise tax is suspended and the savings are passed through to consumers:

- For gasoline, the bottom 30 percent of households (deciles 1–3) capture only 17.3

percent of the national benefit, while the top 30 percent (deciles 8–10) capture 47.5 percent. Decile 10 alone captures 21.3 percent.

- For diesel, the bottom 30 percent capture only 2.5 percent of the national benefit, while the top 30 percent capture 84.9 percent. Decile 10 alone captures 54.0 percent.

These concentration ratios are consistent with the cross-country pattern documented by Arze del Granado et al. (2012), who found that fuel subsidies in developing countries overwhelmingly benefit upper-income households. For comparison, LPG spending shows a similar but less extreme pattern (bottom 30 percent = 13.1 percent, top 30 percent = 44.3 percent), and electricity spending is also concentrated at the top (bottom 30 percent = 12.2 percent, top 30 percent = 53.2 percent), but neither is as skewed as diesel.

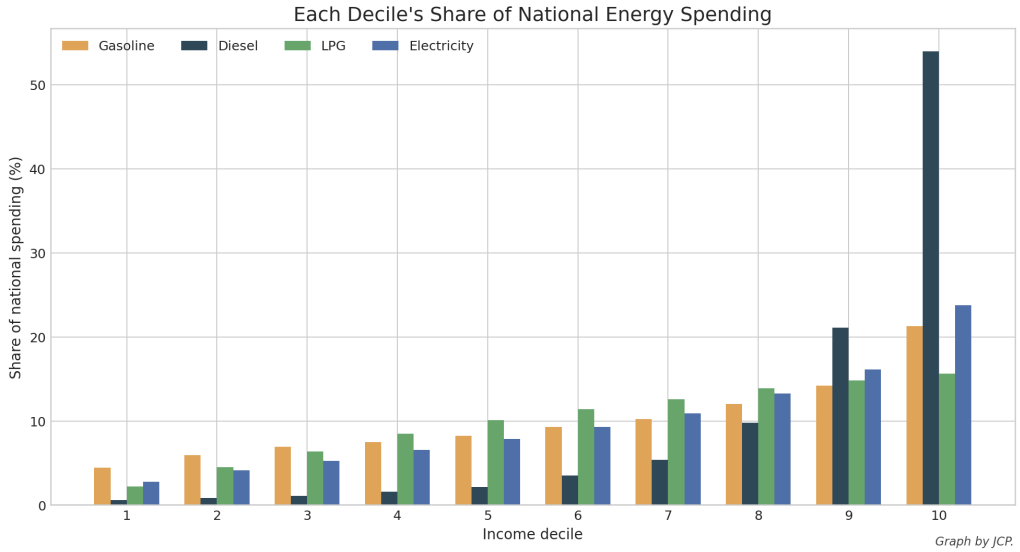

Figure 3: Each decile's share of national energy spending. Most of the benefit from a blanket fuel excise tax suspension flows to upper-income households, especially for diesel. Source: FIES 2023.

A gasoline excise suspension is not well targeted to the poor. At the household level, a diesel excise suspension overwhelmingly benefits upper-income households who own vehicles and generators. This does not mean diesel is unimportant for the broader economy: diesel is also a key input into logistics, farming, freight, and public transport, and those economy-wide cost channels are partly captured through the indirect IO exercise below. But the direct household-purchase incidence of diesel is heavily top-weighted, which is the relevant margin for evaluating who captures the peso benefit of a blanket suspension.

4.5 The energy composition of poor versus rich households

The full energy budget picture reveals a stark divide. Lower-income households allocate their energy spending toward electricity (2.9 percent of total expenditure in decile 1), fuelwood (2.6 percent), and charcoal (0.5 percent). Upper-income households spend on electricity (5.9 percent in decile 10), gasoline (2.5 percent), diesel (1.6 percent), and LPG (1.2 percent), with near-zero spending on fuelwood and charcoal.

Total energy expenditure shares are fairly stable across deciles (9–12 percent), but the composition rotates dramatically. Richer households own and use far more fuel-intensive assets: private cars, SUVs, pickup trucks, generators, and diesel vehicles. So when government cuts fuel excise taxes, the biggest peso savings go to the households that buy the most fuel.

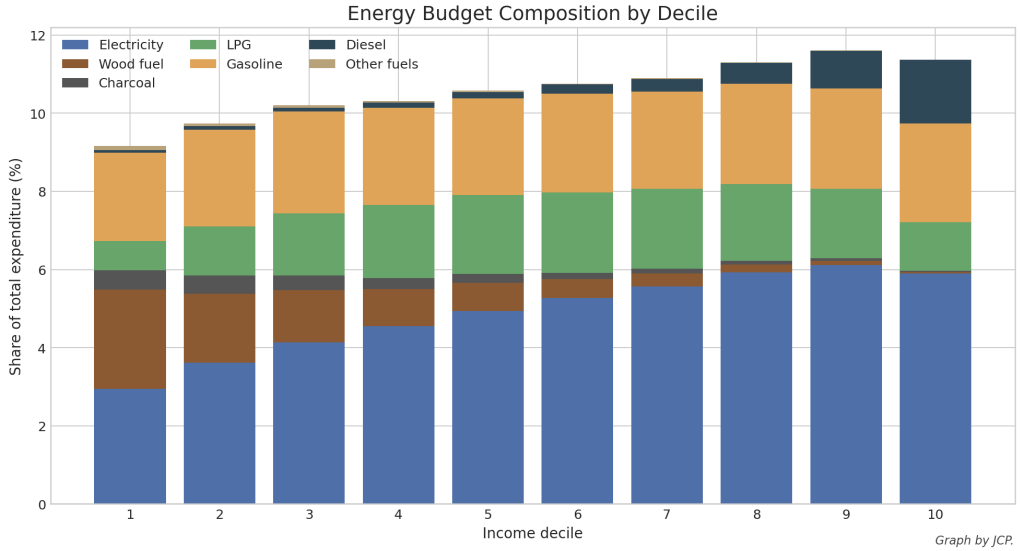

Figure 4: Energy budget composition by income decile. Poorer households spend more of their energy budget on electricity, fuelwood, and other basics, while richer households spend much more on gasoline, diesel, and LPG. Source: FIES 2023.

4.6 Urban-rural dimension

Urban households spend more on gasoline in absolute terms (PHP 7,091 versus PHP 5,737 for rural), but rural households allocate a larger budget share to it (2.87 percent versus 2.32 percent). Diesel spending is higher in urban areas (PHP 2,234 versus PHP 911), consistent with vehicle ownership patterns.

This means rural households, despite spending less in absolute terms, would feel a fuel price increase more acutely as a share of their budget. However, a price decrease through excise suspension would still deliver more pesos to urban, higher-income

households.

4.7 Sector price effects from the 2022 IO table

The direct-incidence results above establish that blanket fuel excise suspension is poorly targeted. But a common counterargument is that the poor are disproportionately hurt by fuel-driven inflation, and that suspension therefore protects them indirectly. The IO exercise below examines this claim. It shows that the indirect channel does tilt slightly toward the poor—but precisely because the burden falls on food, fares, and electricity, those are the channels that targeted instruments can address far more efficiently than a blanket excise cut.

A 10 percent increase in refined petroleum prices raises mapped household prices by approximately 0.093 percent for food at home, 0.074 percent for restaurants and food outside, 0.281 percent for public transport, and 0.400 percent for electricity. Outside petroleum itself, the strongest pass-through appears in transport-related sectors and utilities. This is intuitive: fuel is a major input into land transport and electricity generation.

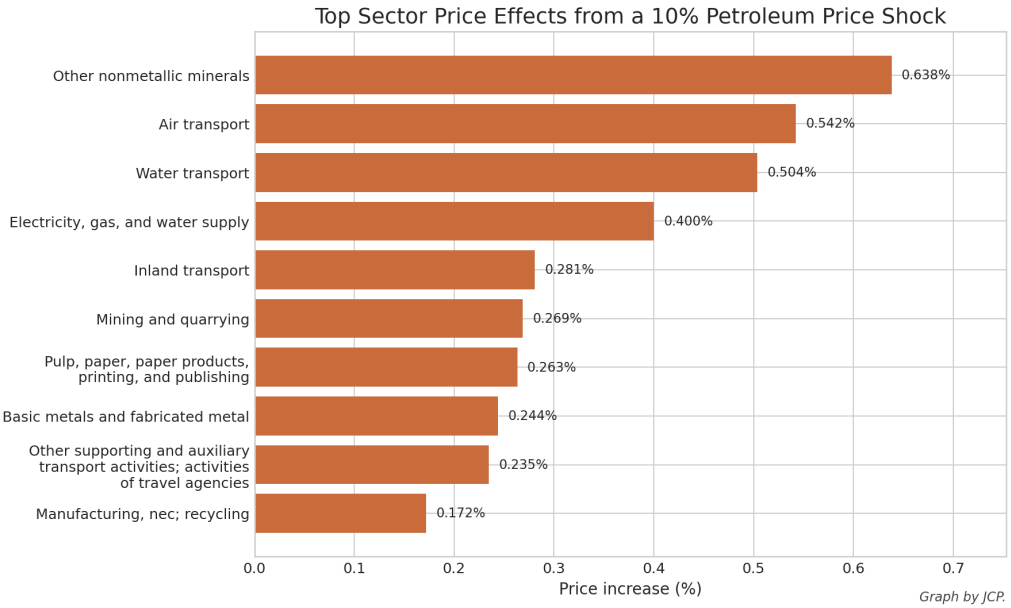

Figure 5: Top 10 sector price effects from a 10 percent increase in refined petroleum prices, based on the 2022 IO table.

4.8 Indirect effect on households

The indirect effect alone is somewhat more burdensome for poorer households. For a 10 percent oil shock, the estimated indirect budget hit is about 0.070 percent in decile 1

and 0.051 percent in decile 10.

Poor households devote more of their budget to necessities, especially food. Those are exactly the items where fuel costs get passed through. So even when poor households buy little gasoline or diesel directly, they still feel the shock through higher prices for daily essentials. This parallels the finding in Blackman et al. (2010) that the indirect channel through bus fares is regressive even when the direct channel through gasoline is progressive.

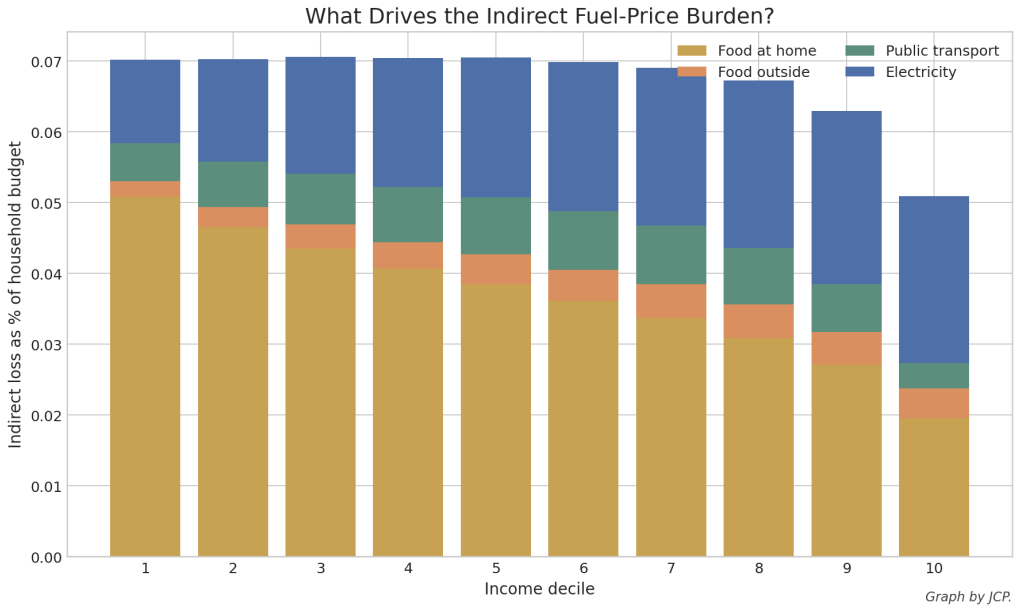

Figure 6: Indirect budget effect of a 10 percent oil price shock, by channel and income decile. Food dominates the indirect effect in lower deciles, while transport and electricity become relatively more important higher up. Source: FIES 2023, 2022 IO table.

4.9 Total effect: Direct plus indirect

Once direct gasoline and diesel purchases are added back in, the pattern flips. The total budget hit rises from about 0.303 percent in decile 1 to 0.467 percent in decile 10, because direct fuel purchases are much larger among richer households.

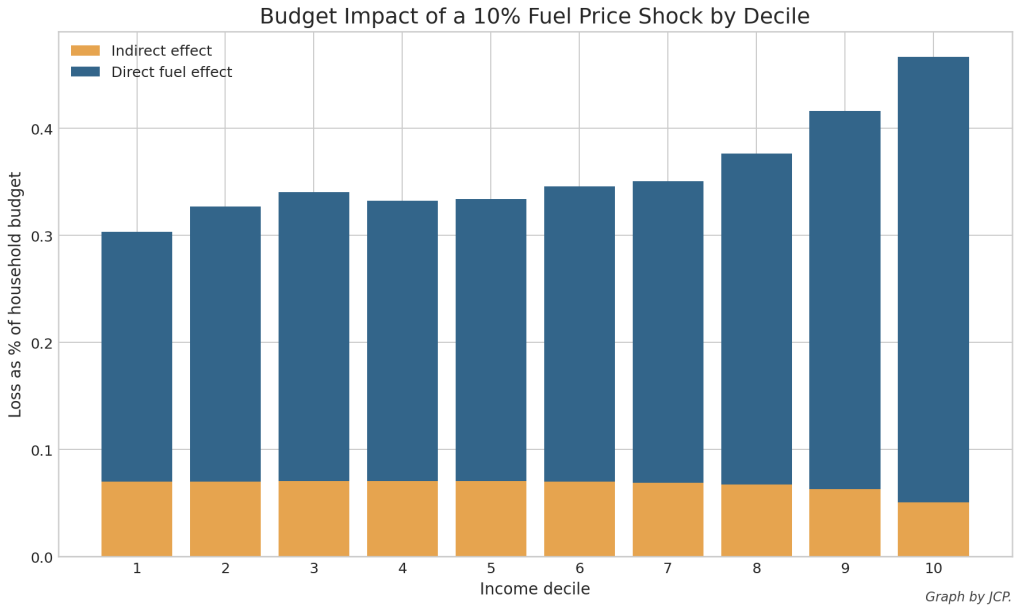

Figure 7: Direct and indirect components of a 10 percent oil price shock, by income decile. The indirect component is fairly flat and slightly heavier for poorer households, but the direct fuel component rises steadily with income. Source: FIES 2023, 2022 IO table.

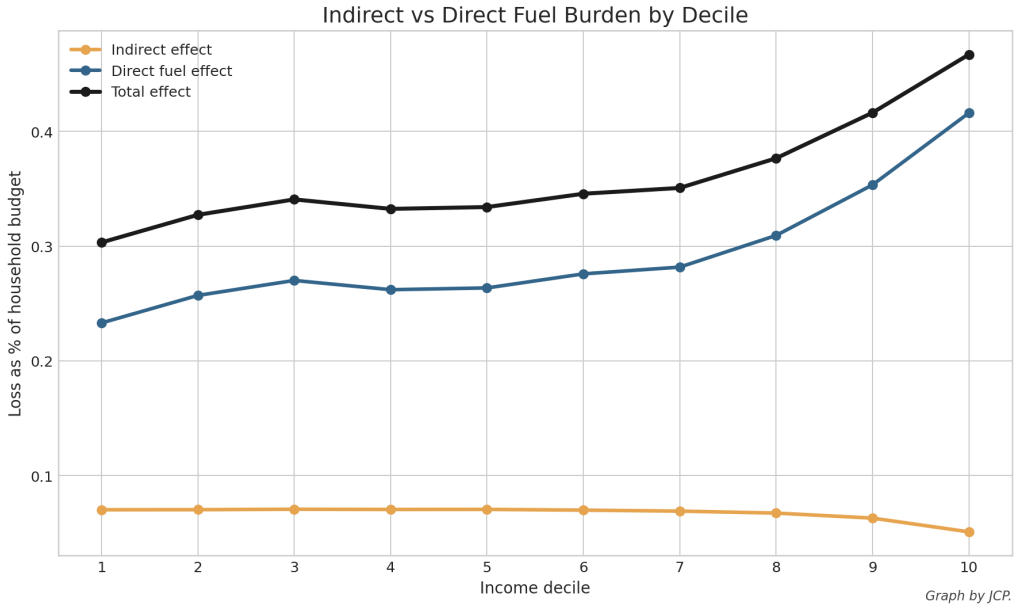

Figure 8: Indirect, direct, and total budget burden of a 10 percent oil price shock by income decile. The indirect line slopes down with income, while the total line slopes up. Source: FIES 2023, 2022 IO table.

The distributional pattern can be summarized as follows. Through the indirect channel, poorer households are somewhat more exposed because they spend more on food, fares, and electricity as a share of their budget. Through the direct channel, richer households bear larger budget-share burdens because they buy far more gasoline and especially diesel. In accounting terms, the total budget hit is larger for richer house-

holds. However, this does not mean poorer households are less affected in welfare terms: tighter margins, liquidity constraints, and higher essential-expenditure shares mean that a given budget-share loss may translate into sharper consumption pressure for lower-income households. Both sides of the fuel-tax debate can therefore sound partly right: poorer households are more vulnerable through the indirect channel, while richer households bear larger direct and total budget costs. The full distributional breakdown is reported in Table 3 in the appendix.

4.10 Policy scenarios: excise removal versus targeted redistribution

The preceding sections establish who bears the burden of a fuel price increase. This section flips the question and asks: what is the best way to use the fiscal space embedded in fuel excise taxes? I compare two scenarios.

Scenario 1: Full excise removal. Gasoline and diesel excise taxes are suspended entirely, and the savings are passed through to consumers. Under RA 10963, gasoline carries an excise of PHP 10 per liter (approximately 16.7 percent of an average pump price of PHP 60) and diesel PHP 6 per liter (approximately 10.9 percent of an average pump price of PHP 55). Each decile's direct saving is its mean gasoline expenditure multiplied by 0.167, plus its mean diesel expenditure multiplied by 0.109. In addition, indirect savings arise as lower fuel costs reduce the prices of food, transport, and electricity; these are estimated by rescaling the IO-based indirect effects from the 10 percent petroleum shock to the excise-equivalent petroleum price reduction of approximately 15.5 percent.[5]

Scenario 2: Retain excise, redistribute collections as progressive cash transfers. The excise tax remains in place, so fuel prices stay unchanged and there are no indirect savings. Instead, the government distributes the excise revenue collected from household gasoline and diesel purchases as cash transfers to the poorest households, weighted inversely by mean household expenditure so that the poorest decile receives the largest per-household transfer and each successive decile receives less.[6]

The fiscal envelope for this scenario is PHP 34.6 billion per year. This figure is computed directly from the FIES 2023 microdata: for each household, excise paid equals the excise-to-pump-price ratio (10/60 for gasoline, 6/55 for diesel) multiplied

[5]The weighted average is $(0.80 \times 16.7\%) + (0.20 \times 10.9\%) \approx 15.5\%$, where the weights reflect gasoline's and diesel's shares of total national household fuel spending. Since the IO table treats refined petroleum as a single sector, this is a simplifying approximation. If industrial use is more diesel-heavy than household use, the true indirect effect would be slightly smaller.

[6]Specifically, the transfer to a household in decile d is $T_d = k/\bar{E}_d$, where $\bar{E}_d$ is mean household expenditure in decile d and k is a constant chosen so that $\sum_d N_d T_d$ equals total excise revenue, with N_d the number of households in each eligible decile.

by observed fuel expenditure. Summing across all weighted households gives total household-level excise revenue from gasoline and diesel.[7]

Under Scenario 2a, transfers go to the bottom 30 percent (deciles 1–3, approximately 8.2 million households): decile 1 receives PHP 4,909 per year (PHP 409 per month), decile 2 receives PHP 4,058 (PHP 338 per month), and decile 3 receives PHP 3,639 (PHP 303 per month). Under Scenario 2b, transfers go to the bottom 50 percent (deciles 1–5, approximately 13.7 million households), ranging from PHP 3,306 per year (PHP 275 per month) in decile 1 down to PHP 1,955 (PHP 163 per month) in decile 5.

Table 1 and Figure 9 report the comparison. Under excise removal (Scenario 1), a household in decile 1 gains PHP 630 per year, while a household in decile 10 gains PHP 3,704—nearly six times as much. As a share of household expenditure, total savings range from 0.49 percent in decile 1 to 0.68 percent in decile 10. Measured against household income, the savings are essentially flat at 0.41–0.45 percent across all deciles—making the excise removal roughly proportional to income, neither clearly progressive nor regressive in relative terms, but strongly regressive in absolute peso terms.

Under targeted redistribution, the poorest households are far better off. If progressive transfers go to the bottom 30 percent (Scenario 2a), a decile-1 household gains PHP 4,909 per year—7.8 times what it would gain from excise removal. Even decile 3 receives PHP 3,639, or 3.8 times its gain under removal. As a share of household income, the transfer represents 3.4 percent in decile 1 and 1.8 percent in decile 3—far above the 0.44 percent gain from excise removal. If transfers go to the bottom 50 percent (Scenario 2b), a decile-1 household gains PHP 3,306—5.2 times its gain under excise removal—declining to PHP 1,955 in decile 5. The tradeoff is that the transfer falls to zero for households above the cutoff, whereas excise removal provides at least some benefit to every fuel-consuming household.

[7] This is distinct from—and much smaller than—the DOF's estimate of PHP 136 billion in forgone revenue for 2026 from a full petroleum excise suspension. The DOF figure covers all petroleum products (including kerosene, LPG, and bunker fuel) and all buyers (including industrial, commercial, and agricultural users). The PHP 34.6 billion used here covers only gasoline and diesel purchased directly by households as recorded in the FIES. If the full DOF figure were used as the fiscal envelope, the transfers in Scenarios 2a and 2b would be roughly four times more generous.

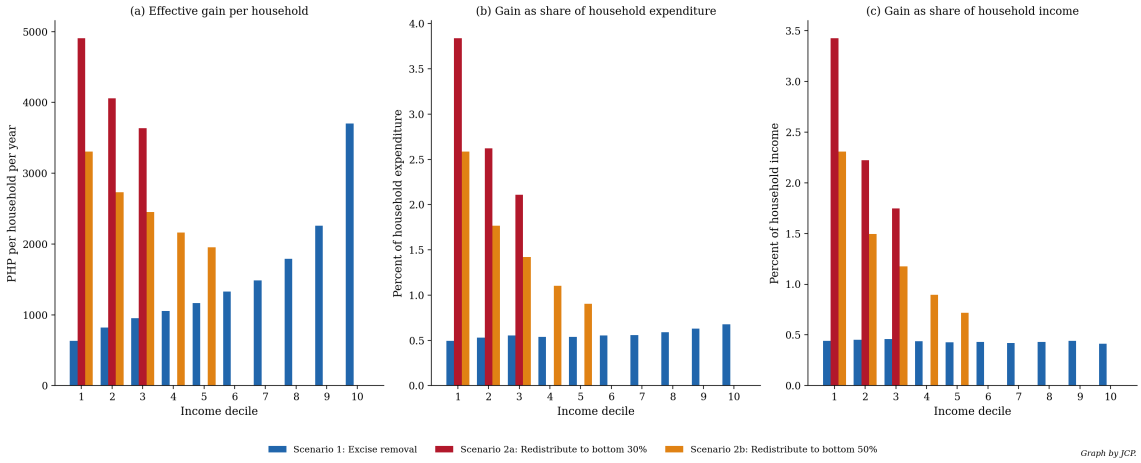

Figure 9: Effective household gains under excise removal versus targeted redistribution. Panel (a) shows peso gains per household per year; panel (b) shows gains as a share of household expenditure; panel (c) shows gains as a share of household income. Source: FIES 2023, 2022 IO table.

Note: Scenario 1 includes both direct savings (from lower gasoline and diesel prices) and indirect savings (from lower food, transport, and electricity prices via IO pass-through). Scenarios 2a and 2b involve no price changes; the gain is a progressive cash transfer (weighted inversely by mean expenditure) funded by retaining excise collections. Full pass-through assumed for Scenario 1; actual savings would be lower if pass-through is incomplete.

Table 1: Effective household gains under alternative excise tax scenarios (PHP per household per year)

	Scenario 1: Removal			Scenario 2a: Redist. 30%			Scenario 2b: Redist. 50%		
Decile	PHP	% exp.	% inc.	PHP	% exp.	% inc.	PHP	% exp.	% inc.
1	630	0.49	0.44	4,909	3.84	3.43	3,306	2.59	2.31
2	823	0.53	0.45	4,058	2.62	2.22	2,733	1.77	1.50
3	955	0.55	0.46	3,639	2.11	1.75	2,451	1.42	1.18
4	1,053	0.54	0.44	0	0.00	0.00	2,161	1.10	0.90
5	1,166	0.54	0.43	0	0.00	0.00	1,955	0.90	0.72
6	1,327	0.55	0.43	0	0.00	0.00	0	0.00	0.00
7	1,484	0.56	0.42	0	0.00	0.00	0	0.00	0.00
8	1,791	0.59	0.43	0	0.00	0.00	0	0.00	0.00
9	2,260	0.63	0.44	0	0.00	0.00	0	0.00	0.00
10	3,704	0.68	0.41	0	0.00	0.00	0	0.00	0.00

Note: Scenario 1 (excise removal) includes direct savings from lower fuel prices and indirect savings from IO-based price pass-through to food, transport, and electricity. "% exp." is the gain as a share of mean household expenditure; "% inc." is the gain as a share of mean household income (FIES 2023 total income). Scenarios 2a and 2b redistribute PHP 34.6 billion in household-level gasoline and diesel excise revenue—computed from FIES 2023 fuel expenditure and the excise-to-pump-price ratio—as progressive cash transfers, weighted inversely by mean expenditure, to the bottom 30 and 50 percent of the income distribution, respectively. This is the FIES-implied household excise revenue only; the DOF's broader estimate of PHP 136 billion (covering all petroleum products and all buyers) would yield substantially larger transfers. Full pass-through assumed for Scenario 1.

These estimates are best interpreted as effective purchasing-power gains, not income increases in the factor-income sense. They capture how much household budgets stretch further under each scenario, but do not model how lower production costs might raise wages, profits, or employment. Estimating those income-side effects would require a model with factor-market linkages—such as a social accounting matrix (SAM) or computable general equilibrium (CGE) model—which is beyond the scope of this note. The full pass-through assumption in Scenario 1 also means these are upper-bound estimates of the gains from excise removal; evidence from temporary excise reductions in other countries suggests pass-through rates of 50–80 percent, which would reduce the actual savings proportionally and widen the gap in favor of targeted redistribution.

The comparison makes the core point stark: under excise removal, the bottom 30 percent of households collectively capture only 16 percent of the total gains, but under targeted redistribution they capture 100 percent. A decile-1 household would receive

7.8 times more under Scenario 2a than under excise removal, using the same fiscal envelope. Even under the broader Scenario 2b, the poorest decile receives 5.2 times more. Retaining the excise and redistributing the revenue progressively is unambiguously more effective at reaching the households that need it most.

5 Discussion and policy implications

5.1 The distributional case against blanket suspension

The combined evidence shows that if the government suspends or removes the fuel excise tax, the biggest peso gains go to households that buy the most gasoline and diesel—that is, upper-income households. Diesel tax suspension is especially regressive in absolute terms: 85 cents of every peso of forgone diesel excise revenue goes to the top 30 percent of the distribution. This pattern echoes the cross-country evidence in Arze del Granado et al. (2012) and Sterner (2012): blanket fuel price relief is a costly way to help the poor because the rich consume far more fuel.

5.2 The indirect channel strengthens the case for targeting

The indirect-channel results do not change the main finding—they reinforce it. Poor households are hit through necessities—food, public transport, and electricity—and may be more vulnerable in welfare terms because their margins are thinner and their spending is concentrated on essentials. But this is exactly why blanket excise suspension is the wrong instrument: it addresses the indirect pain only indirectly, at enormous fiscal cost, while delivering most of its benefit to fuel-intensive upper-income households. Targeted instruments that act on the specific channels through which poor households are exposed—food, fares, and electricity—would achieve the same protective objective at a fraction of the cost.

5.3 The fiscal cost of suspension

Total weighted household spending on gasoline and diesel in 2023 was approximately PHP 223 billion. With average pump prices around PHP 60 per liter for gasoline and PHP 55 per liter for diesel, the excise component represents roughly 17 percent and 11 percent of the pump price, respectively. The Department of Finance has estimated the potential revenue loss at PHP 136 billion for 2026 if the excise tax on all petroleum

products is fully suspended from May onward. Even a narrower suspension covering only gasoline and diesel would cost the government tens of billions of pesos annually.

This is revenue that currently funds infrastructure, social protection transfers, and other expenditures under the General Appropriations Act. Suspending the excise redirects these funds toward fuel consumers—who, as shown above, are disproportionately upper-income.

The scenario comparison in Section 4.10 puts concrete numbers on this opportunity cost. Using only the FIES-implied household-level gasoline and diesel excise revenue—PHP 34.6 billion, computed by applying the excise-to-pump-price ratio to observed household fuel expenditure across all survey respondents—progressive redistribution to the bottom 30 percent would give the poorest decile PHP 4,909 per year, or 7.8 times the PHP 630 it would gain from excise removal. Even redistribution to the bottom 50 percent gives the poorest decile 5.2 times more. This PHP 34.6 billion is a conservative lower bound: it covers only gasoline and diesel purchased directly by households. The DOF's estimate of PHP 136 billion in forgone revenue for 2026 covers all petroleum products and all buyers (industrial, commercial, and agricultural), so the actual fiscal envelope from a full suspension would be roughly four times larger and could fund correspondingly more generous transfers. The DOF itself estimated in 2022 that targeted cash transfers of PHP 200 per month to 12 million low-income households would cost about PHP 33 billion per year—less than a quarter of the projected cost of full suspension.

5.4 Better-targeted alternatives

A blanket fuel excise suspension is a blunt tool: it is expensive, weakly targeted, and delivers large benefits to households that are not the main intended beneficiaries. The scenario comparison in Section 4.10 demonstrates that the same fiscal envelope, redistributed progressively, would deliver 5–8 times more to the poorest households. If the policy objective is to protect vulnerable households from fuel price shocks, more efficient instruments are available:

- Progressive cash transfers to the bottom 30–50 percent of households, funded by retaining excise collections—as shown in the scenario exercise, this alone dominates excise removal on distributional grounds
- Targeted subsidies for public transport operators and drivers (such as the Pantawid Pasada program)
- LPG or cooking-fuel subsidies

- Electricity lifeline rate support

These instruments target the indirect pain points of poorer households—food, fares, and electricity—without giving large fiscal benefits to high-fuel-consuming richer households. The scenario comparison makes this concrete: under excise removal, the bottom 30 percent of households collectively capture only 16 percent of the total gains; under progressive redistribution, they capture 100 percent.

6 Conclusion

The central finding of this policy note is that a blanket suspension of fuel excise taxes is not a well-targeted way to protect the poor, and that the same fiscal resources can do far more when channeled through targeted transfers. Nearly half of every peso of forgone gasoline excise revenue and 85 cents of every peso of forgone diesel excise revenue would flow to the top 30 percent of the income distribution. Under excise removal, a household in the poorest decile gains only PHP 630 per year; under a revenue-neutral alternative that retains the excise and redistributes collections progressively to the bottom 30 percent, the same household gains PHP 4,909—7.8 times as much. Even under a broader redistribution to the bottom 50 percent, the poorest decile receives 5.2 times more than under suspension.

A supplementary IO exercise confirms that poorer households are more exposed to fuel price increases through indirect channels—food, fares, and electricity. But this finding strengthens rather than undermines the case against blanket suspension: the specific channels through which the poor are vulnerable are precisely the ones that targeted instruments—public transport subsidies, cash transfers, electricity lifeline support—can address at a fraction of the fiscal cost. The broader question of how oil price shocks transmit through the Philippine economy and affect household welfare across multiple rounds deserves fuller treatment in separate work; the first-round exercise here is sufficient to identify the channels relevant to policy design.

Several caveats apply. The IO exercise captures only first-round cost push-through and does not model second-round effects such as wage adjustments, demand responses, or substitution between goods; the indirect effects reported here are a partial first-round approximation whose net bias is ambiguous, since full pass-through pushes them up while incomplete expenditure coverage pushes them down. Excise suspension does not guarantee a one-for-one reduction in pump prices—market structure, refinery margins, and distribution costs all affect pass-through, and evidence from temporary excise reductions in other countries suggests pass-through rates of 50–80

percent. If pass-through is incomplete, the actual gains from excise removal would be proportionally smaller, widening the gap in favor of targeted redistribution. FIES 2023 is a cross-sectional snapshot: consumption patterns may shift in response to sustained price changes, and behavioral responses are not captured here. The FIES also covers household spending only; industrial, commercial, and agricultural diesel use falls outside this frame—so the analysis does not capture fuel costs faced by jeepney drivers, farmers, and fishermen through their livelihoods, which are a separate and important dimension of fuel-price vulnerability. The redistribution scenarios assume perfect targeting; in practice, administrative costs and inclusion and exclusion errors would reduce the efficiency of transfers, though the magnitude of the distributional advantage (5–8 times more to the poorest decile) leaves substantial room for implementation imperfections. Finally, the indirect-incidence mapping does not cover all household expenditure categories, meaning the indirect effects are likely understated, though the relative pattern across deciles appears broadly consistent with the mapped spending composition.

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A Appendix

Table 2: Concordance between FIES expenditure categories and IO sectors

Channel	FIES items	IO sector(s)	Type
Food at home	Food expenditure at home	c1, c3	Indirect
Food outside	Restaurants, food outside	c22	Indirect
Electricity	Electricity expenditure	c17	Indirect
Public transport	Jeepney, bus, tricycle, taxi, railway, other land transport	c23	Indirect
Gasoline	Gasoline expenditure	c8	Direct
Diesel	Diesel expenditure	c8	Direct
Not mapped: housing, education, health, clothing, financial services, communication			

Note: IO sector codes refer to the 2022 Philippines IO table from the Asian Development Bank (Table 1.17): c1 = agriculture, hunting, forestry, fishing; c3 = food, beverages, tobacco manufacturing; c8 = refined petroleum; c17 = electricity, gas, water supply; c22 = hotels and restaurants; c23 = inland transport. The food-at-home channel uses a weighted average of c1 and c3, with weights based on household final demand shares. The mapped categories cover 62 percent of decile 1's budget and 34 percent of decile 10's budget. Unmapped categories are excluded from indirect-incidence estimates.

Table 3: Decile effects of a 10 percent fuel price increase (percent of household budget)

Decile	Indirect loss	Direct fuel loss	Total loss
1	0.070	0.233	0.303
2	0.070	0.257	0.327
3	0.071	0.270	0.341
4	0.070	0.262	0.332
5	0.070	0.264	0.334
6	0.070	0.276	0.346
7	0.069	0.282	0.351
8	0.067	0.309	0.377
9	0.063	0.353	0.416
10	0.051	0.416	0.467

Note: Indirect loss is estimated from the 2022 Philippines IO table, mapping sector-level price effects from a 10 percent increase in refined petroleum prices onto FIES 2023 household spending patterns. Direct fuel loss is 10 percent of each decile's gasoline and diesel budget share. First-round pass-through only; does not model substitution or behavioral adjustment. See Table 2 for the concordance between FIES categories and IO sectors.