



HOW TO

NOTES

How (Not) to Price Fuel Products

Delphine Prady, Julieth Pico-Mejia, Jean-François Wen, and
Grégoire Rota-Graziosi

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Delphine Prady, Julieth Pico-Mejia, Grégoire Rota-Graziosi, and Jean-François
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Abstract:

Half of all countries in the world regulate fuel prices through various forms of interventions in price formulas. These interventions pursue a range of social, political, and economic objectives, including protecting consumers from price volatility or promoting domestic industries. However, they rarely achieve their objectives and often have unintended and costly consequences. This How-to-Note provides guidance on the structure and components of fuel price formulas, what practices should be avoided, and why. Policymakers should prioritize transparency, alignment with international market prices, simplicity, and consistency in fuel pricing. Transparency requires regularly publishing all components of fuel prices. Second, domestic fuel prices should reflect international market fluctuations. Policymakers should create a pricing culture that accepts some degree of price volatility, possibly through automatic and transparent adjustments. Third, price interventions should be simple and kept at a minimum. This is key for fuel taxation which should be streamlined to only a few taxes, while parafiscal levies should be avoided. Finally, similar fuel products should be subject to comparable pricing interventions to ensure consistency and reduce inefficiencies, fraud, and smuggling.

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Introduction

Fuel products are fundamental inputs in modern economies.¹ They account for 25 percent of global energy supply and are essential for production, transportation, trade, power generation, and the functioning of critical infrastructure. Fluctuations in their prices have significant macroeconomic implications, shaping inflation dynamics, competitiveness, and overall macroeconomic stability. They also have substantial fiscal implications through both taxation and subsidies. In 2023, the total final consumption of gasoline and diesel amounted to about 6 percent of global GDP, exceeding 10 percent in a dozen countries. Although international markets largely determine fuel prices, supply chain rigidities and distortions also play an important role, and volatility is often amplified by geopolitical events.

The pricing of fuel products should ideally rely on liberalized energy markets, supported by taxation that fully internalizes environmental, health and other negative externalities (Black and others 2023). Fuel prices that do not adequately reflect supply costs and environmental impacts generate fiscal risks and liabilities and weaken environmental policy objectives. Countries should therefore allow price signals to operate through market-based pricing and add all externalities associated with fuel use. Efficient fuel prices can then be compared with current prices to assess how much fuel consumption countries subsidize and how countries can design reform plans (see Black and others 2025). However, despite strong arguments in favor of pricing all externalities from fuel use, many countries do not even capture the supply cost of fuel and remain a long way from efficient pricing.

This note focuses on improving fuel pricing practices without attempting to incorporate all environmental externalities or quantifying fuel subsidies. Half of all countries in the world regulate fuel prices through various forms of interventions in price formulas. These regulations typically involve administratively set prices across multiple components of numerous pricing structures, resulting in significant complexity and limited transparency. Although such practices are more common in low-income developing countries, fuel price regulation remains widespread across income groups, with 95 countries maintaining some form of intervention as of January 2025.² For example, Belgium has regulated fuel prices using a formula-based retail price cap introduced in 1974, and in Malawi, the Energy Regulatory Authority sets retail prices through an automatic mechanism that adjusts when landed costs deviate by more than ± 5 percent (FPS Economy 2025; Malawi Energy Regulatory Authority 2025).

Governments intervene in fuel pricing to pursue a range of social, political, and economic objectives. These include protecting consumers from price volatility and maintaining affordability, securing fiscal revenues, ensuring reliable supply in low-income developing countries, limiting rent-seeking, and pursuing political goals such as promoting social cohesion or protecting energy-intensive industries. However, such interventions rarely achieve their objectives and tend to have unintended and costly consequences (for example, encouraging smuggling).

¹ This note covers all refined fuel products that are widely consumed across countries and whose prices are determined on international markets (that is, gasoline, diesel, kerosene, fuel oils, jet fuels, and naphtha) and does not cover natural gas, liquefied petroleum gas, and coal.

² See World Bank (2025), which shows that 95 of 154 reviewed economies were regulating fuel prices in January 2025.

This note provides guidance on the structure and components of fuel price formulas, what pricing practices should be avoided, and why. The note starts by detailing the key components of a reference fuel price. This price reflects the full cost of supplying fuel in a liberalized market and includes all taxes applied in a given country. This reference price excludes discretionary policy interventions, such as noncompetitive regulation of supply costs, special tax arrangements that would deviate from standard tax regimes (for example, reduction or exemption), or discretionary caps on final prices. The note then describes the most common forms of intervention applied to each component, and the associated policy tradeoffs. It proposes a pricing framework and highlights the fiscal risks and policy challenges that arise from regulatory interventions. These tradeoffs are often opaque, can generate entrenched rents within the downstream fuel sector, and may impose significant fiscal and economic costs and unintended distributional effects.

Policymakers should prioritize transparency, alignment with international market prices, simplicity, and consistency in fuel pricing. First, transparency requires regularly publishing all components of fuel price formulas. Second, domestic fuel prices should reflect international market fluctuations. Policymakers should create a pricing culture that accepts some degree of volatility, possibly through automatic and transparent adjustments. Third, price interventions should be simple and minimal. This is particularly key for fuel taxation, which should be streamlined to only few taxes and should avoid parafiscal levies. Last, similar fuel products should be subject to comparable pricing interventions to reduce inefficiencies, fraud, and smuggling.

This note is organized as follows. First, it outlines the components of reference fuel prices. Second, it examines the fiscal, governance, and economic risks—as well as the policy tradeoffs—associated with rigid or discretionary interventions in these components. Last, the note presents key dos and don'ts for fuel price interventions, highlighting principles to reduce distortions and align existing pricing mechanisms more closely with the reference price.

Components of the Prices of Fuel Products

The supply of fuel products involves three main components: product availability, access, and sale (see Table 1). First, fuel products must be made available in a country, whether through domestic production, importation, or a combination of both.³ Second, access to these products must be ensured through an effective distribution system, supported by adequate storage facilities and transportation networks across the country. Third, fuel products must be sold to consumers, either directly at points of consumption—typically on a wholesale basis for businesses and large users—or through retail outlets such as gas stations for the general public.

In this note, reference fuel prices are prices that reflect the full cost of supply in a liberalized market and that incorporate all taxes applied in a given country. A liberalized market supply cost corresponds to the economic cost of delivering fuel products within a competitive environment that minimizes rent-seeking behaviors (such as those arising from information asymmetries) and inefficiencies (such as collusion among market participants) across all stages of the downstream supply chain (that is, all steps from transporting crude oil to refineries up to the point where fuels are ready for consumers). With respect to taxation, a reference fuel price should, by default, include only those taxes explicitly defined in the current legislation—such as customs duties, value-added tax (VAT), and excise taxes.⁴

As fuel products are traded globally, international market prices serve as the primary benchmark for supply costs, regardless of whether a country imports or produces fuel domestically (see Table 1, component 1). For importing countries, these prices represent the main cost borne by importers, whereas for exporting countries, they reflect the opportunity cost—foregone revenue from selling the products domestically instead of abroad at international prices. These costs are further increased by the services required to make fuels available to distributors, such as freight, trading, and insurance, which vary across countries. The most common international reference is the free-on-board price, which refers to fuel prices at the point of export, excluding shipping and insurance fees.^{5,6} International market prices are subject to significant market volatility, which exchange rate fluctuations may further amplify. In principle, fuel prices should reflect this volatility to convey accurate market signals to consumers, enabling them to adjust their consumption patterns accordingly. Once fuel products reach distributors, additional supply-chain costs arise to account for distribution and retail operations (see Table 1, component 2).

³ Here, local production can mean either (1) production and refining of crude oil or (2) refining of imported crude oil.

⁴ Excises are considered here as part of existing pricing policies and are not aiming at internalizing externalities (see Black and others 2025).

⁵ For a discussion of the Valuation of Imports and Exports of Goods in the International Standards, see IMF (2020).

⁶ The main trading hubs for fuel products are Singapore, Houston (United States), and Rotterdam (The Netherlands). The choice of the most relevant trading hub for price references will depend on products' sourcing based on quality specification, availability, transportation considerations, and so on.

Table 1. Components of Reference Fuel Prices

Supply Steps	Components	Diesel Price in France, December 5, 2025	Diesel Price in Uganda, December 15, 2025
Product availability	(1) International market price reference × Exchange rate ¹ +	Rotterdam quote (euro per liter) 0.496	Monopoly importer resell price (UGX per liter) 2,340
	(2) Transportation costs and margins × Exchange rate ¹ +		
	(3) Custom duties ² =		
	Distribution entry price	Distribution entry price	Distribution entry price
Product access	+ (4) Storage costs and margins + (5) Transportation costs and margins + (6) Retail costs and margins =	Distribution costs (euro per liter) 0.255	Distribution costs (UGX per liter) 820
	Retail price before tax	Retail price before tax	Retail price before tax
Product sale	+ (7) Excise + (8) VAT =	Excise (TICPE) (euro per liter) 0.609 VAT on product (euro per liter) 0.15 VAT on excise (euro per liter) 0.122	Excise (UGX per liter) 1,380 Other taxes (UGX per liter) 150
	(9) Liberalized price	1.63 euro per liter	4,690 UGX per liter

Sources: Authors; Petroleum Authority of Uganda (<http://www.pau.go.ug>); and UFIP 2026 (for France December 2025 diesel price).

Note: Excise taxes can be collected at customs; VAT should be collected at each stage of the supply chain, but in a regulated price context, VAT collection is usually done only once at the distribution entry point of the supply chain (for example, at the border or at the refinery's exit) and not at later stages of the supply chain. TICPE refers to the excise tax on domestic consumption of petroleum products, and UGX refers to Ugandan shilling. VAT = value-added tax.

¹ For fuel producers, transportation costs and margins borne to ensure products' availability to downstream marketers are usually expressed in local currency and do not need to be converted with the exchange rate.

² For fuel producers, custom duties can be broken down in two parts: first, custom duties on imported oil products (for example, crude oil) where applicable, and second, local producers' costs (including refining costs) and margins.

The taxation of fuel products typically consists of customs duties, VAT, and excise taxes (see Table 1, components 3, 7, and 8). Differences in tax burdens across fuel types such as gasoline, diesel, or kerosene tend to lack a clear economic rationale—such as the internalization of different environmental impact—and are often justified by nontransparent policy considerations (for example, the “diesel differential” in Europe; Harding 2014). These can result from lobbying (by industrial or specific political interests) or inertia from past policies not explicitly related to economic efficiency goals. The standard VAT base for fuel products is the pre-VAT consumer price, which includes supply costs and all other applicable taxes. Excise taxes are usually limited in number to avoid overly complex price structures and to reduce opportunities for rent-seeking

by specialized agencies or administrations. They may also incorporate behavioral incentives to encourage particular consumption patterns, such as energy conservation or the use of specific fuels.⁷

Reference fuel prices include VAT—applied inclusive of excise taxes—in countries where VAT or an equivalent tax is levied (see Table 1, component 8). VAT is typically collected through the credit-invoice method, whereby suppliers levy VAT on their taxable sales and issue invoices that allow purchasers to claim input tax credits. Consequently, the VAT burden falls solely on final consumers, but businesses along the supply chain remit only the net VAT, calculated as the difference between VAT collected on sales and VAT paid on inputs. In regulated price environments, VAT on the final fuel consumption is often collected only once, either at the border or at the point of exit from domestic refineries or storage facilities. This approach is generally adopted for administrative efficiency, as collecting VAT from a limited number of importers or producers is simpler, ensures higher compliance, and minimizes enforcement costs compared to collecting it throughout the supply chain and from numerous retailers.

Given the relatively low-price elasticity of demand for fuel products, applying uniform taxation without preferential treatments is an effective means of generating revenue.⁸ This is the case even in contexts characterized by high levels of informality. In most countries, fuel consumption is relatively inelastic and, in many developing economies, constitutes one of the few formal and stable tax bases available to fiscally constrained governments. With worldwide fuel consumption averaging about 6 percent of GDP in 2023, fuel products represent a significant and reliable source of tax revenue in these countries.

When fuel prices are fully liberalized, consumer prices are the sum of the three components of the reference prices and therefore fluctuate in line with international market conditions. However, when policymakers intervene at any stage of the supply chain and introduce price controls or other regulatory measures, consumer prices may diverge from the reference price. The following section outlines these types of interventions and examines the associated fiscal implications.

⁷ See the France example in IMF (2025) (Chapter 2, Online Annex 2.5).

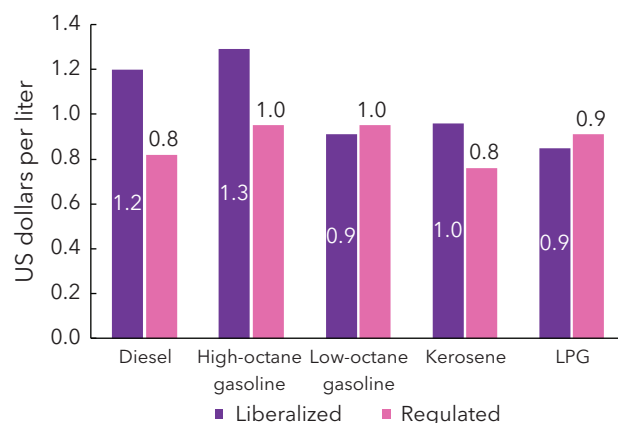
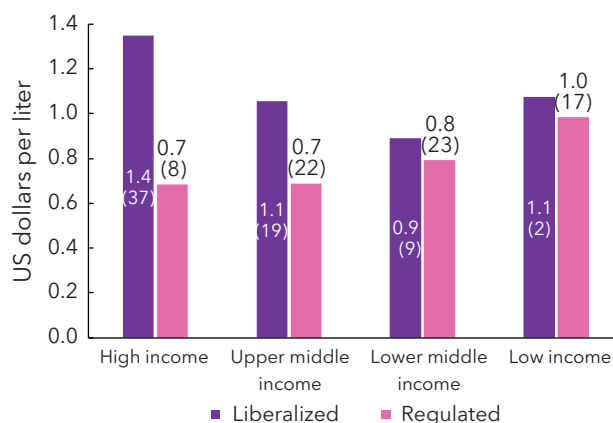
⁸ See Labandeira, Labeaga, and López-Otero (2017) for a meta-analysis, and Kilian and Zhou (2024) for more recent estimates.

Different Fuel Price Interventions, Tradeoffs, and Fiscal Risks

In practice, deviations from reference prices occur widely across countries, regardless of their level of development. Governments often justify intervening in fuel pricing to (1) shield consumers from volatility shocks by preserving affordability of fuel products; (2) preserve revenue targets; (3) in low-income developing countries, ensure supply while limiting rent-seeking from fuel market players; and (4) pursue broader social, economic, or political objectives—such as maintaining social cohesion, supporting income redistribution, or advancing industrial policy goals. Although fuel price liberalization remains the long-term objective in many countries, interim price controls—when supported by sound regulation and effective enforcement—serve as milestones toward this goal (Kojima 2016). Effective enforcement may involve transparent and evidence-based monitoring systems, penalties for noncompliance, and regular audits to ensure that regulated prices are being implemented as intended. Setting regulated prices as close as possible to reference prices and doing so in a manner that minimizes economic distortions, facilitates progress toward achieving full liberalization over time.

Fuel price interventions generally result in lower prices for final consumers and, consequently, imply some form of fiscal costs. Between 2015 and 2024, average consumer prices for diesel, high-octane gasoline, and kerosene were approximately 32, 26, and 21 percent lower, respectively, in countries with regulated fuel prices compared with those with liberalized pricing regimes (see Figure 1, panel 1). The gap between regulated and liberalized prices is substantially larger in high-income countries than in low-income and lower-middle-income countries (see Figure 1, panel 2, diesel consumer prices). This wider differential partly reflects higher fuel taxation in high-income countries with liberalized prices, as well as higher, largely unavoidable supply costs in many low-income countries, regardless of whether prices are regulated.⁹ This effectively reduces potential tax revenues from a significant and predominantly formal consumption base in countries with regulated prices. At the same time, the share of advanced economies that regulate fuel prices is considerably smaller than that of low- and middle-income countries.

⁹ For example, landlocked countries and import-dependent countries with relatively low levels of the total fuel consumption often face systematically higher supply costs (for example, Central African Republic).

Figure 1. Differences between Liberalized and Regulated Fuel Consumer Prices*(US dollars per liter, by fuel type and country income group)***1. Yearly Averages of Liberalized and Regulated Consumer Prices, by Fuel Type****2. Yearly Averages of Liberalized and Regulated Diesel Consumer Prices, by Country Income Group**

Sources: Authors; and World Bank Global Fuel Subsidies and Price Control Measures Database 2025.

Note: Prices are yearly averages of gas pump prices over the period of 2015–24. In panel 2, the number of countries appears in parentheses. LPG = liquefied petroleum gas.

Beyond their fiscal costs, fuel price regulations often fail to achieve their stated objectives, lack transparency, and generate tradeoffs and inefficiencies that are seldom reflected in public debate. In practice, governments implement interventions across the three components of fuel prices that are frequently ad hoc, inefficient, and at times mutually offsetting. For example, in countries with remote regions, an effective approach to ensuring the supply of fuel nationwide is to appropriately compensate transport services by route. However, such an access policy creates multiple price structures that must be monitored and updated, thereby reducing transparency and simplicity while increasing the administrative burden of regulating fuel prices. These tradeoffs can lead to inconsistencies that, in turn, give rise to even more distortionary practices (see Box 1). Alternative policies such as targeted cash transfers or prioritized investments in transport infrastructure are often more effective and efficient in supporting remote regions.

Table 2. Common Price Controls, Policy Objectives, and Risks

Price Components	Most Distortionary (to avoid)	Price Controls Distortionary (to reform)	Less Distortionary (second-best practice)	Stated Objectives	Risks*
(1) International market price reference × Exchange rate	Discretion	Contractual	Average international market values	Efficient supply	Corruption Extra administrative costs Supply shortages
(2) Transportation costs and margins	Discretion	Contractual	International benchmarks, average by routes/operations	Capital investment	Corruption Rent-seeking
(3) Custom duties	Particular agreements	Derogatory regimes	Standard regimes	Revenue mobilization	Corruption Smuggling Tax revenue loss
Distribution entry price	<i>Discretion Below supply costs</i>	<i>Discretion Covers supply costs</i>	<i>Simple computation</i>		
(4) Storage costs and margins	Discretion	Average, uniform	Regulated costs + margin	Natural monopoly regulation	Safety issues Extra administrative costs Obsolete infrastructures Rent-seeking
(5) Transportation costs and margins	Discretion	Average, uniform	Regulated, by routes	Efficient and competitive supply	Safety issues Extra administrative costs Rent-seeking
(6) Retail costs and margins	Discretion	Average, uniform	Regulated, by locations		
Retail price before tax	<i>Discretion below supply costs</i>	<i>Discretion covers supply costs</i>	<i>Simple computation</i>		
(7) Value-added tax	Particular agreements	Different bases	Standard tax law enforcement	Simplicity Revenue mobilization	Corruption Tax revenue loss
(8) Excise tax	Particular agreements	Different regimes			
(9) Quasi-taxes	Earmarked taxes, non-fuel related	Earmarked taxes, fuel related	None	Earmarking to secure financing	Special agencies outside general government supervision Tax revenue loss
Retail price before subsidies	<i>Discretion Below supply costs</i>	<i>Discretion Covers supply costs</i>	<i>Simple computation</i>		
(10) Subsidies	Not disclosed	Partially disclosed	Explicit	Affordability Smoothing market volatility	Corruption Energy-intensive technology lock-in Overconsumption
Retail price	<i>Price caps Below supply costs</i>	<i>Price caps Covers supply costs</i>	<i>Simple computation</i>		

Source: Authors.

¹ Risks are color-coded as follows: red signifies mainly borne by public entities; green signifies risks by private entities; and black signifies risks by both public and private entities.

Price Intervention at Product Availability

Given that product availability accounts for roughly 50 percent of the total fuel pricing, it provides the greatest scope for policy intervention and the greatest potential for distortions (see Figure 2).¹⁰ Significant information asymmetries often exist between policymakers and fuel importers or refineries—whether privately owned or state owned—regarding actual landed costs (the cost of bringing fuel products to the point where they become available for domestic distribution). For example, if a refinery overstates its landed costs because of a lack of independent verification, policymakers may set higher regulated prices than necessary, leading to increased consumer prices. These costs depend critically on the structure of the importing or producing market, which is frequently close to monopolistic. This occurs, for example, when a domestic refinery is granted priority to supply the local market or when imports are channeled through a single-buyer system or a pooled procurement mechanism.

Uncoupling landed costs from international reference prices is often used to reduce information asymmetry when monitoring capacity is limited. However, this introduces a tradeoff between ensuring adequate product availability and limiting rent-seeking behavior. Setting landed costs above international levels can help secure supply but may also encourage price gouging and leakages; setting them below international levels can discourage rent-seeking and reveal true costs and margins, but risks creating shortages. A common example is the use of official exchange rates for converting prices into local currency: in countries where parallel market rates better reflect the currency's true value, applying an undervalued official rate may incentivize suppliers to disclose cost margins, but it can also render operations unprofitable for competitive suppliers, leading to shortages.¹¹ In all cases, such distortions contribute to rigid prices driven by entrenched interests and imperfect competition. Anchoring landed costs to regularly updated international market data, and where relevant to observed costs in comparable countries, can help mitigate these tradeoffs and support a more balanced and sustainable pricing policy. Policymakers could establish an independent body to regularly review, and update landed cost benchmarks based on international indices and regional comparators, ensuring transparency and stakeholders' engagement in the process.

Price Intervention at Product Access

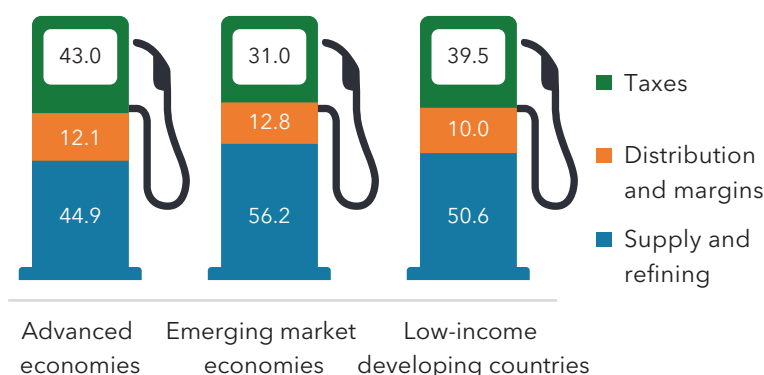
Distribution costs and margins constitute a relatively small share of after-tax consumer fuel prices and tend to remain stable over time, although policy interventions often aim to ensure uniform access (see Figure 2). These largely reflect fixed costs that exhibit limited variation, with differences arising from factors such as geographical conditions (for example, landlocked versus coastal countries, mountainous versus flat terrain), security environments, and the quality of transport infrastructure, particularly road networks. Ensuring that suppliers can recover higher costs where necessary is essential to maintaining nationwide access, especially in remote areas. In practice, governments frequently address these disparities through direct adjustments to distribution cost components, resulting in differentiated price structures across locations. However, such systems are complex to manage and require substantial administrative capacity, and only a limited number of countries are able to generate, monitor, and regularly update the necessary data to implement them. Investment in digital monitoring systems can help improve data collection and analysis.

¹⁰ For imported fuels, these costs cover freight, insurance, trader's premium, losses, financing costs, and import margins; for locally produced fuels, they cover pipeline and storage costs and margins.

¹¹ The reference exchange rate should be based on the average rate over a 15- to 30-day window, rather than the spot rate, to reduce volatility and limit manipulation risks.

Figure 2. Composition of Gasoline Prices, by Country Income Group

(Percent of pump price)



Source: Authors.

Price Intervention at Product Sale

Interventions at the product sale (about 30–40 percent of consumer fuel prices) often reduce the transparency and effectiveness of taxation and introduce costly subsidies (see Table 1 and Figure 2). Because fuel consumption is a relatively stable and formal tax base, policymakers frequently add to consumer fuel prices numerous levies—other than the main taxes discussed so far. This creates a tension between revenue-raising objectives and concerns over affordability or other goals. These conflicting priorities often lead to complex, nontransparent tax distortions and the introduction of explicit subsidies, which in turn undermines budget predictability, comprehensiveness, and prioritization. Such interventions can take various forms:

- Earmarked taxes and administrative fees.** Beyond standard tax components (see Table 2, components 3, 7, and 8), regulated fuel prices often include levies earmarked for specific agencies, local governments, or administrative bodies (see Table 2, component 9). Because these charges are often collected outside traditional customs or tax administrations, they can create opportunities for rent-seeking by stakeholders with political influence and may contribute to higher costs and encourage informality. When these revenues are not properly recorded in public accounts, they can compromise budget integrity and become difficult to monitor or reform. Although rare in advanced economies, such levies are more common in low-income developing countries and are often introduced through decrees or ministerial orders rather than legislation, limiting parliamentary oversight. For example, in 1974, Japan introduced a temporary surcharge on fuel products earmarked to road infrastructure maintenance. In 2010, acknowledging that the temporary surcharge was effectively long lived, it was transformed into an excise. In November 2025, the authorities eliminated this surcharge-turned-excise to reduce fuel costs for consumers.

- **Special customs regimes.** To advance industrial policy objectives, governments frequently implement special customs regimes (see Table 2, component 3) to support fuel-importing firms—whether handling crude oil or refined products. In addition to the standard “release for free circulation and consumption” regime,¹² countries may use customs warehousing,¹³ temporary admission,¹⁴ processing under customs control,¹⁵ free zones and special storage, or outward processing regimes.¹⁶ When used outside their intended scope, these regimes can create significant leakage risks by weakening controls over the release and circulation of imported fuel products.
- **Explicit consumer subsidies.** When governments choose to subsidize fuel consumption, the decision about which component of the price to discount has important implications for oversight and for the overall fiscal cost (see Box 2). Applying the subsidy at the distribution entry price or at the pretax consumer price (see Table 2) generates two major distortions. First, it may shift the short-term financial burden of the subsidy onto private suppliers, increasing their financial and administrative costs. Second, it complicates the accurate determination of tax bases, resulting in unreported tax expenditures and reduced fiscal transparency.

¹² The importer pays customs duties, excises, VAT, and carbon taxes where applicable.

¹³ Fuel products, which may be re-exported, are stored in a bonded warehouse without immediate payment of duties and taxes.

¹⁴ This regime implies full or partial exemption from import duties and taxes but requires that imported goods are reexported within a prescribed time limit without undergoing any significant transformation.

¹⁵ Fuel products may be imported under duty and tax suspension, processed domestically (for example, refining), and then reexported without being placed on the national market.

¹⁶ Domestically produced fuel products are exported for processing abroad and subsequently reimported, with full or partial exemption from customs duties on the added foreign value.

BOX 1. Effective Value-Added Tax versus Subsidized Consumer Price below Supply Costs

The standard value-added tax (VAT) base for fuel products is the final consumer price, which includes supply costs and all other applicable taxes. However, when consumer prices are set below cost-recovery levels, fuel marketers may systematically accumulate VAT credits, as the VAT they collect on subsidized retail prices falls short of the deductible VAT paid on inputs. This structural imbalance can create substantial government liabilities and market distortions, particularly where VAT refund systems are ineffective.

To mitigate this challenge, some countries levy VAT on nonsubsidized components of the fuel price—typically the upstream segments such as import or production, storage, and transportation cost—rather than at the retail level. Although this approach reduces the accumulation of VAT credits, it increases the overall subsidy burden through VAT exemptions at some stages in the fuel distribution.

Instead of removing subsidies, many countries (including EU member states) restrict VAT deductibility on some types of fuel consumption such as transport to curb the buildup of VAT credits and VAT fraud. However, such restrictions also create important economic and fiscal challenges. First, VAT effectively becomes an excise-type tax, with cascading effects throughout the supply chain, raising input costs for businesses, and eroding the efficiency advantages of VAT.¹ Second, some export-oriented industries—such as extractive sectors—may benefit both from subsidized fuel and from VAT refunds, since exports are generally zero-rated and these sectors may enjoy the full VAT deductibility on their inputs. Third, governments forgo a powerful tool for promoting formalization: allowing input VAT deductions for registered firms could provide a strong financial incentive for transport operators to move into the formal economy, thereby improving compliance.

¹ This measure could be interpreted as an implicit incentive for electricity consumption, because electricity usage generally allows for VAT deductibility, thereby offering a relative tax advantage to electricity compared with fuel-based primary energy sources.

BOX 2. The Strategic Place of Consumer Subsidy in Regulated Fuel Prices

When governments subsidize fuel consumption, policymakers face two key decisions: (1) whether the subsidy should appear as a discount to existing price components or as a standalone line item and (2) where it should be applied within the pricing structure.

1. *Discount or standalone price component*

To minimize distortions, subsidies should appear as an explicit line item after retail fuel prices, shown as a negative value when consumer prices are set below formula levels and as a positive value representing a nontax revenue (out of the scope of countries' tax codes and legislation) when above. This approach strengthens transparency and reduces opportunities for rent-seeking. By contrast, applying the subsidy as a discount to the distribution entry price or the pretax retail price effectively narrows the tax base and creates tax expenditures that are seldom recorded in the budget. It also shifts the immediate financial burden of subsidies to importers, producers, or retailers, raising several concerns:

- **Economic risks:** Delayed compensation can weaken suppliers' financial positions and threaten product availability. Although large suppliers and timely government repayment can mitigate these risks, the 2022 energy crisis demonstrated that such arrangements often collapse when international prices surge.
- **Fiscal risks:** Liquidity-constrained governments may temporarily transfer financing pressures to fuel sector stakeholders. However, weak capacity, limited operational information, or governance challenges can increase subsidy costs (for example, when governments take at face value suppliers' bills without checks and audits), obscure their fiscal impact, and complicate future reform efforts.
- **Governance risks:** Complex or opaque interventions undermine fiscal transparency and heighten the risk of corruption. Structural liquidity problems may prompt governments to offset unpaid subsidies with reductions in suppliers' tax liabilities, eroding budget integrity and predictability. Fuel suppliers may take advantage of increased bargaining power in, for example, public tenders. Poorly governed repayment systems may also encourage inflated invoices and corruption.

If the subsidy is applied through reduced tax rates or preferential tax regimes, the government bears the cost directly as a tax expenditure, which creates additional risks:

- **Economic risks:** Deviations from standard taxation lower relative prices of fuel products, distort allocation of resources, and discourage savings by consumers, often conflicting with broader energy-transition policies.
- **Fiscal risks:** Tax expenditures limit the government's ability to finance other priorities and may push authorities toward less efficient revenue sources.
- **Governance risks:** Preferential tax treatments are rarely disclosed comprehensively, obscuring budget discussions and becoming difficult to reverse once entrenched.

2. *Placement of subsidies in the fuel price structure*

Fuel subsidies are inherently regressive, inefficient, and costly and should generally be avoided in favor of more targeted support mechanisms. Where governments nevertheless choose to subsidize fuel products, the design should reflect the complexity of the downstream sector, particularly the number of actors involved at each stage of the supply chain. Administrative burdens are lower when fewer firms must be monitored.

Placing the subsidy as a postretail discount is the most transparent option and avoids distorting tax calculations. However, this approach entails significant administrative costs, as retailers are typically far more numerous than importing firms, producers, or distributors.

The Dos and Don'ts When Setting Up Fuel Price Structures

Once a country departs from the first-best approach of fully market-determined fuel prices, the key principles of transparency, anchoring to international price signals, simplicity, and consistency should guide any intervention. From these principles, a set of recommended dos and don'ts for intervening in fuel prices can be derived (see Table 3).

Principle 1. Transparency

Transparency of fuel prices is essential to building trust in policy interventions, strengthening accountability, and enabling timely adjustments that limit distortions. Many countries that regulate fuel prices—such as Cameroon, Colombia, and Luxembourg—routinely publish detailed information on official websites, including pricing formulas, legal references, and examples of regional price variations. It is key for consumers to access clear and comprehensive price information through dedicated public platforms, ideally managed by an independent regulator who oversees the correct application of pricing policies. Such transparency helps stakeholders understand how prices are determined, who benefits financially, and how concerns can be raised. It also makes price controls and their underlying policy objectives more visible and salient. Regular communication through widely used channels—such as social media, newspapers, television, and signage at fuel stations—reinforces this visibility, encouraging consumer engagement, supporting fiscal oversight, and helping deter rent-seeking or price-gouging practices.¹⁷

Transparency and independent regulation are key elements of good governance and essential to depoliticizing any intervention in fuel prices. Yet, countries with weak governance often rely on highly distortionary price controls. Publishing existing interventions for all price components is therefore an important first step toward depoliticization because it publicly acknowledges the presence of price regulation, its costs, beneficiaries, and tradeoffs, and eventually for broader governance reforms.

Principle 2. Anchoring Domestic Prices to International Reference Prices

Domestic fuel prices should reflect international market fluctuations. When fuel products are traded globally, their international prices should be explicitly incorporated into domestic prices. Governments should also avoid delaying the pass-through, even if only partial, of international price changes, as rigid consumer prices expose public budgets to heightened volatility and weaken the link between domestic consumption and global supply conditions—potentially leading to excessive consumption or shortages (Coady and others 2013; Kpodar and Imam 2021).

A sound approach is to moderate consumer price volatility while balancing pressures to introduce subsidies during periods of rising prices and pressures to resist frequent adjustments. This should be reflected in a strong pricing governance framework. Across countries, price adjustment practices range from discretionary and infrequent changes to full liberalization. Between these extremes, automatic pricing mechanisms offer a middle path by allowing international price changes to pass through over the medium term while smoothing

¹⁷ When price controls are salient, there may be a tradeoff between strong behavioral incentives and fiscal objectives. This tradeoff is well documented for taxes (Chetty, Looney, and Kroft 2009; Goldin 2022), less so for fuel subsidies or cost top-ups.

sharp fluctuations in consumer prices (Coady and others 2017; De Broeck and Kpodar 2014; Abdallah and others 2020).

Creating a pricing culture that accepts a reasonable degree of price variability is essential for the successful implementation of automatic pricing mechanisms. Any successful mechanism should allow gradual adjustments both when prices increase and when they decrease. It is crucial for domestic consumer prices to first align with international reference levels before introducing such mechanisms. When fiscal conditions permit, adopting an automatic mechanism is generally easier during periods of declining international prices.

Principle 3. Simplicity

Making price interventions simpler enables consumers to understand better and, when combined with transparency, reduces opportunities for rent-seeking by economic and political actors. First, the number of interventions should be minimal. In many countries, price adjustments vary according to differences in supply conditions—such as product origin, transport routes, storage facilities, retail locations, or importing companies’ characteristics—to better reflect actual costs. However, excessive differentiation increases administrative and regulatory burdens, undermines transparency, and can create governance challenges. Second, interventions should remain narrowly focused. They must reflect genuine market or governance needs and avoid conferring benefits to stakeholders only loosely connected to the fuel sector. Third, fuel taxation should be streamlined, legally grounded, and easy to administer. It is important to avoid additional compulsory charges functioning as para-fiscal levies—effectively imposing taxes outside the budget framework and generating earmarked revenues for various agencies or funds—because they complicate pricing structures and raise supply costs.¹⁸ Last, when subsidizing fuel consumption, governments should implement an explicit, standalone subsidy that is fully reflected in the budget and applied to final consumer prices, ideally referencing market-based prices that fully reflect all underlying costs.

Principle 4. Consistency

Similar fuel products should be subject to comparable pricing interventions to ensure consistency and to discourage inefficiencies, fraud, and smuggling. In many countries, substantial differences between gasoline and diesel prices cannot be fully justified by variations in international prices, supply costs, demand factors such as transport or energy use, or internalization of externalities. Likewise, products that are identical or nearly identical are sometimes priced differently depending on the user, such as public electricity companies receiving fuel products at subsidized rates. These discrepancies lack economic justifications and tend to encourage inefficient consumption patterns, technology lock-in (for example, in electricity generation), and fraudulent practices that carry significant safety risks, including unsafe informal storage. Policymakers should also consider prices in neighboring countries, as large cross-border differentials can incentivize smuggling, particularly in conflict-affected regions. Where such differences are driven by subsidies, smuggling effectively results in subsidizing consumption abroad.

Last, reforms to fuel price interventions must consider their broader social and economic impacts. Because fuel is a key input across many sectors—especially those with regulated final prices, such as transportation, electricity, food production, or even beer crafting—any price adjustment has immediate implications for firms’

¹⁸ See IMF (1996) and paragraph 5.74 in IMF (2014) for a discussion of the boundary between fees and taxes. Fees are considered a sale of a service when, for example, issuing a license or permit implies a proper regulatory function of the government. Fees are used to cover the cost of producing services but should be regarded as taxes when the payment is clearly out of all proportion to the cost (IMF 2014).

profitability, as the degree of pass-through to final consumers may be constrained by government policy.¹⁹ These interdependencies of regulated costs and prices introduce rigidities throughout the economy and often promote informality. Fuel price changes also have direct effects on household welfare, because of a limited number of affordable substitutes. Therefore, reforms should be embedded in a comprehensive strategy that fully reflects their socioeconomic consequences.

Table 3. Dos and Don'ts of Setting Up Fuel Prices

Principle	Dos	Don'ts
Transparency	- Publish all components of fuel prices, including formulas, legal references, and regional variations. - Provide price information through public platforms by an independent regulator. - Communicate price details regularly through widely used channels. - Make all interventions public to strengthen accountability and deter rent-seeking.	- Do not conceal or fragment information on price components. - Do not rely on opaque or politically controlled pricing processes. - Do not allow information gaps that enable price gouging or misuse of public funds. - Do not keep fuel price regulation hidden or undocumented.
Anchoring to international reference prices	- Reflect international price movements in domestic fuel prices in a timely manner.²⁰ - Consider using automatic pricing mechanisms to ensure medium-term pass-through while smoothing volatility. - Align domestic prices with international benchmarks before adopting automatic adjustments. - Build a "pricing culture" that accepts price variability, both upward and downward. - Ensure market surveillance and independent oversight.²¹	- Do not freeze or significantly delay price adjustments. - Do not disconnect domestic prices from global supply conditions. - Do not implement pricing mechanisms while prices remain misaligned with international levels. - Do not shield consumers from all volatility in ways that endanger fiscal sustainability.
Simplicity	- Keep interventions few and simple to enhance clarity and reduce administrative burden. - Ensure interventions reflect actual market or governance needs. - Streamline taxation and ensure taxes are legally grounded and easy to administer. - Use explicit, standalone subsidies applied to the final consumer price and reflected in the budget.	- Do not multiply differentiated interventions (for example, by region, importer, or route). - Do not introduce benefits for actors loosely connected to the fuel sector. - Do not impose parafiscal levies or off-budget charges. - Do not embed subsidies within intermediate cost components.
Consistency	- Apply similar interventions to similar fuel products to ensure coherence. - Ensure pricing differences between fuels or users are economically justified. - Monitor cross-border price differentials to mitigate smuggling incentives. - Consider socioeconomic impacts when reforming price interventions, especially in regulated downstream sectors.	- Do not maintain unjustified price discrepancies between comparable fuels or across users. - Do not ignore regional price disparities that encourage smuggling. - Do not implement adjustments without considering effects on regulated sectors or households. - Do not reform price structures in isolation from broader economic conditions.

Source: Authors.

¹⁹ See the recent example of the authorities in the Republic of Congo discouraging beer-crafting industries from unilaterally increasing fixed beer prices to reflect higher fuel costs.

²⁰ Platt's reference prices and statistics are often used to estimate international market prices of crude and refined products. However, it is a very expensive commercial product that only few governments and regulators can afford. Data on spot prices readily accessible online can be a reasonable proxy.

²¹ Examples of such oversight include regular audits of suppliers, cross-checking of tax records with suppliers' financial statements introducing a cap on refiners' allowed costs and margin or organizing public tenders for importation of fuel product that abide by procurement best practices.

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