INFRASTRUCTURE / MARKET ARCHITECTURE

Fuel Pricing Is Not a Free Market.

It Is Chaos Dressed Up as Market Logic.

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We allowed one industry to shake the entire economy.

Not metaphorically.

Literally.

Fuel is not an ordinary consumer product. It is not coffee, a television or a luxury watch. Fuel is a critical resource. It is a cost embedded in transport, logistics, food, services, production, commuting, small businesses and the daily operation of the state.

When fuel becomes more expensive, the economy becomes more expensive.

When fuel prices move chaotically, the economy receives chaos.

And yet we have left the pricing of this critical resource to a mechanism that ordinary customers cannot verify. Transport companies cannot verify it. Small businesses cannot verify it. Most public commentators cannot verify it either.

And before someone starts the standard fuel-industry litany: yes, I know.

Fuel is not only Brent.

There are wholesale prices, refined fuel benchmarks, refinery spreads, the dollar exchange rate, taxes, bio-components, logistics, inventories, contracts, local competition and operating costs.

All of that is true.

But it does not solve the problem.

It exposes it.

The UK Competition and Markets Authority analysed fuel prices, margins, inventories, wholesale prices and retailer behaviour in its June 2026 road fuel monitoring report. It pointed to wholesale prices, refinery spreads, inventory pressure, demand and volatility. But it also discussed passive pricing strategies, historically high margins and the need to monitor whether wholesale cost reductions are passed on to retail prices quickly enough. The UK is also moving toward Fuel Finder, a public fuel price transparency system. Reference: CMA, Enhanced Road Fuel Monitoring Report, June 2026

In Poland, e-petrol reported a statement by Energy Minister Miłosz Motyka that fuel companies quickly pass higher crude oil prices into retail prices, while reductions at stations come with delay. Reference: e-petrol.pl

Globally, this mechanism is often called “rockets and feathers”: prices go up like rockets and come down like feathers.

So I am not interested in the lazy explanation that “fuel pricing is complicated.”

If it is complicated, show the mechanism.

If the price comes from real costs, show the costs.

If the price comes from inventories, show the inventories.

If the price comes from margins, show the margins.

Not press releases.

Numbers.

Because today fuel companies can talk about Brent, the dollar, geopolitical risk, inventories, contracts, refining, logistics, delivery costs, station location, competition and margins.

Fine.

But this logic works selectively.

When Brent rises, retail fuel behaves as if it were priced on spot.

Fast. Nervous. Immediate.

When Brent falls, suddenly everyone remembers inventories, contracts, delivery cycles, storage and logistics.

That is not a coherent pricing system.

That is asymmetry.

You cannot pretend to be a spot market on the way up and a warehouse-based business on the way down.

Either fuel is priced dynamically and the mechanism works both ways, or fuel is priced through inventories, contracts and delivery cycles, but then those same inventories must also slow down price increases.

Not only price decreases.

The Numbers Are Uncomfortable

The baseline is simple.

Before the crisis, Brent was around 72 USD per barrel.

Over the same period, the dollar strengthened by roughly 4.5% against the local currency.

If Pb95 gasoline cost around €1.34/litre before the crisis, then the dollar adjustment alone gives:

€1.34 × 1.0447 = around €1.40/litre

So with Brent roughly back near the baseline level, Pb95 should be closer to €1.40/litre if we look only at the Brent + USD axis.

But on 3 July 2026, the real price in Szczecin was around €1.58/litre.

Difference: about €0.18 per litre.

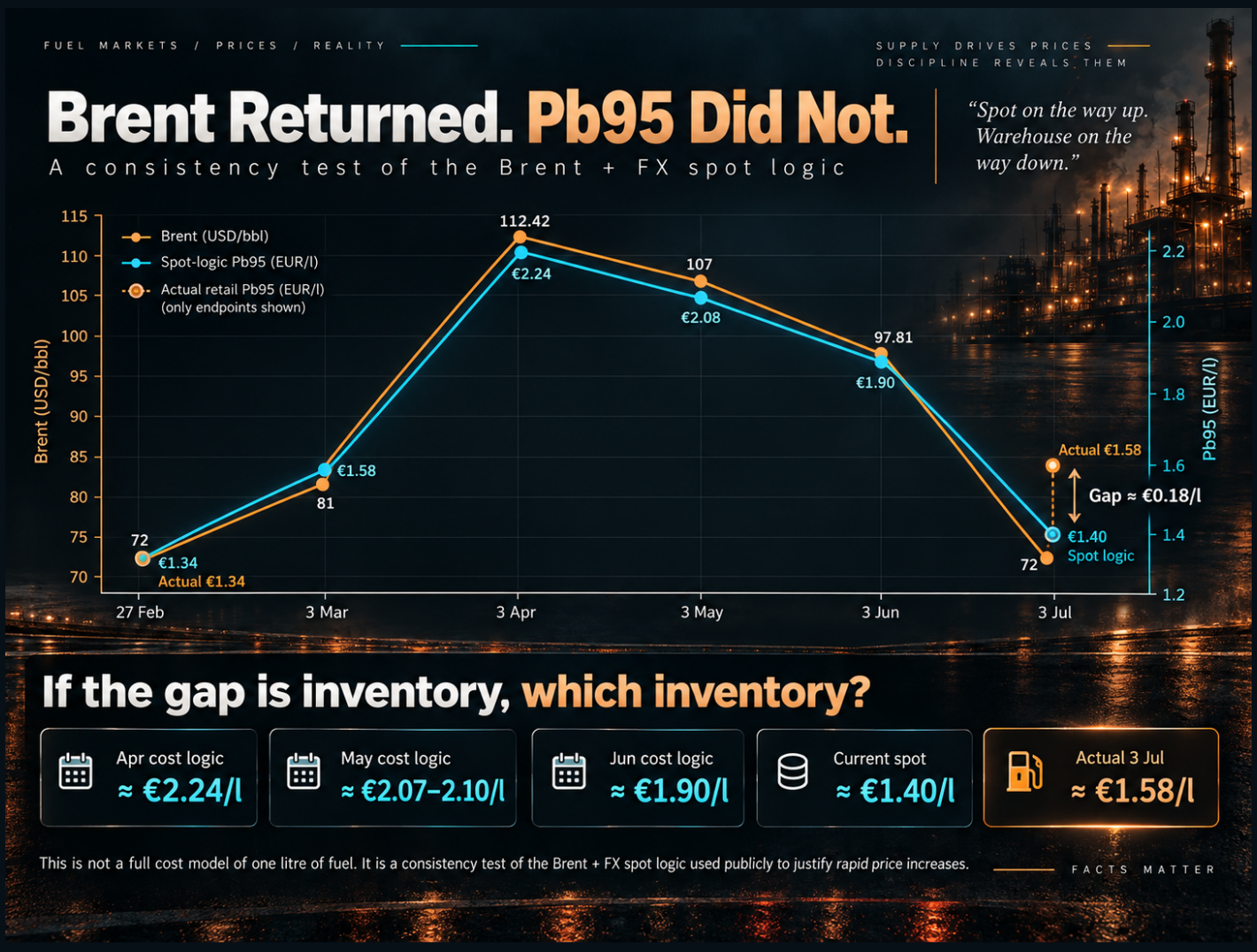
Again: I am not saying Pb95 equals Brent.

I am saying something else.

If fuel companies use Brent, the dollar and geopolitical risk as public justification for price increases, then they can be tested on that axis.

If the mechanism is more complex, show it.

Do not invoke complexity only when it helps delay a reduction.


FUEL MARKETS / PRICES / REALITY
SUPPLY DRIVES PRICES
DISCIPLINE REVEALS THEM
Brent Returned. Pb95 Did Not.
A consistency test of the Brent + FX spot logic
"Spot on the way up. Warehouse on the way down."
Brent (USD/bbl)
Spot-logic Pb95 (EUR/l)
Actual retail Pb95 (EUR/l)
(only endpoints shown)
Brent (USD/bbl)
Pb95 (EUR/l)
115
110
105
100
95
90
85
80
75
70
2.2
2.0
1.8
1.6
1.4
1.2
72
€1.34
Actual €1.34
81
€1.58
112.42
€2.24
107
€2.08
97.81
€1.90
72
Actual €1.58
Gap ≈ €0.18/l
€1.40
Spot logic
27 Feb
3 Mar
3 Apr
3 May
3 Jun
3 Jul
If the gap is inventory, which inventory?
Apr cost logic
≈ €2.24/l
May cost logic
≈ €2.07–2.10/l
Jun cost logic
≈ €1.90/l
Current spot
≈ €1.40/l
Actual 3 Jul
≈ €1.58/l
This is not a full cost model of one litre of fuel. It is a consistency test of the Brent + FX spot logic used publicly to justify rapid price increases.
FACTS MATTER

So Which Inventories Are We Pricing?

My monthly calculations are approximate. I calculated them using the percentage increase in Brent against the baseline of roughly 72 USD/bbl, and I applied the same 4.5% dollar adjustment used above.

During that period, the dollar was sometimes much cheaper and sometimes slightly more expensive. So this is not a full accounting model of one litre of fuel. It is a logical test of the industry's own narrative.

And the test looks like this:

For 27.02.2026, the baseline point, Brent was around 72 USD/bbl, and the Pb95 price was around €1.34/litre.

For 03.03.2026, Brent was 81 USD/bbl, which in this simplified model would imply an approximate Pb95 price of around €1.58/litre.

For 03.04.2026, Brent was 112.42 USD/bbl, which in this simplified model would imply an approximate Pb95 price of around €2.24/litre.

For 03.05.2026, Brent was around 106-108 USD/bbl, which in this simplified model would imply an approximate Pb95 price of around €2.07-2.10/litre.

For 03.06.2026, Brent was 97.81 USD/bbl, which in this simplified model would imply an approximate Pb95 price of around €1.90/litre.

For 03.07.2026, Brent was again around 72 USD/bbl, which in this simplified model would imply an approximate Pb95 price of around €1.40/litre.

Meanwhile, the actual Pb95 price on 03.07.2026 in Szczecin was around €1.58/litre.

And now the question.

Which inventories are today's fuel prices based on?

If fuel is priced on crude from 3 April, it should be around €2.24/litre.

If it is priced on crude from 3 May, it should be closer to €2.07-2.10/litre.

If it is priced on crude from 3 June, it should be around €1.90/litre.

But in reality it is around €1.58/litre.

So today's price looks much closer to the logic of early March than to the logic of the peak crisis period.

Where are those inventories, then?

If fuel companies had enough crude or finished fuel from before the peak crisis for today's price to remain close to March levels, then fuel should not have jumped so aggressively at the beginning of the crisis.

If they did not have such inventories and were buying expensive crude during the crisis, then today's price should still reflect much higher costs.

Both versions do not fit together.

A third version does.

When Brent rose, fuel companies priced fuel as if the entire chain had been bought at today's spot price.

When Brent fell, they started explaining prices through inventories, contracts and delays.

Spot on the way up.

Warehouse on the way down.

The Biggest Premium Appears During The Spike

This is not only about fuel becoming cheaper too slowly.

The largest premium appears during a sharp Brent spike.

If a fuel company has crude bought earlier, fuel in production, fuel in storage bases or fuel already delivered to stations at a cost level that would allow Pb95 to be sold at around €1.33/litre, and then after a Brent spike sells that same physical chain at €1.87-2.10/litre, the difference is not cost.

It is crisis premium.

That specific litre did not suddenly become more expensive because Brent moved on a screen.

It became more expensive because the market allowed fear to be priced.

Fuel companies were not only selling fuel.

They were selling panic.

And the customer had no way to check how much of that was real cost and how much was premium.

To calculate the price of one litre precisely, we would need to know the date of crude purchase, the crude purchase price, the dollar rate at the time, refining cost, transport cost, storage cost, inventory levels, wholesale prices, retail prices, refinery margin, retail margin and local pricing strategy.

The customer does not see that.

The transport company does not see that.

The market does not see that.

It sees the price board.

That is not a transparent market.

That is pricing fog around a product society cannot simply stop using.

Fuel Companies Are Not Poor Victims Of Risk

Of course fuel companies as capital groups can suffer losses.

On investments. On bad acquisitions. On impairments. On accidents. On disasters. On wrong capital decisions.

But somehow annual reports do not show fuel sales revenues and margins as a helpless sector crushed by market risk.

This is one of the most protected business models in the world.

Fuel price risk can be pushed onto the customer almost instantly.

And the customer cannot say: “I will not use fuel this month.”

Transport cannot.

Logistics cannot.

Agriculture cannot.

Commuting cannot.

Small businesses cannot.

That is exactly why fuel is not an ordinary product.

It is a parameter of the economy.

Local Price Lottery

Another issue: local price differences.

Let us take seriously the logic of around €0.047 per litre differences between different parts of the country within the same fuel network.

One can say: location, competition, rent, rotation, delivery costs, motorway, city, franchise, local market.

Fine.

But Poland has a developed fuel storage and distribution network. Fuel is not delivered from one magical point to the entire country. Deliveries are regional, from fuel bases to stations within operational areas.

Based on information from professional drivers delivering fuel for Orlen, these are distances that allow even two daily trips from base to delivery points. Even with one trip, the driver usually completes the loop and returns to the base.

That is normal, repeatable logistics.

Not an expedition to the end of the world.

So around €0.047 per litre within one network does not look like a real logistics cost.

It looks like local customer pricing.

The customer pays as much as the local market can absorb.

For 50 litres, around €0.047 difference means €2.33.

For a 30,000-litre tanker, that is €1,400 difference.

If this is logistics cost, show the calculation.

If not, let us call it what it is: local price rent.

Copper, Cables And Normal Production Logic

I made real orders covering around 11 kilometres of electrical cables.

Copper is also an exchange-traded commodity.

The manufacturer was able to guarantee the offered price for a month. When copper became more expensive, the manufacturer could say that the next batches of cables would be more expensive.

Key words: next batches.

The finished cable did not magically become more expensive in the middle of the day because copper moved on the exchange.

A normal manufacturer knows what it bought, what it has in storage, what it has contracted and for how long it can hold the price.

Commodity risk is part of professional calculation.

The fuel industry has larger scale, larger inventories, stronger contracting power, more hedging and greater systemic importance than a cable manufacturer.

And yet when Brent rises, it behaves as if every drop of fuel in a station tank was produced from crude bought five minutes ago.

Unless Brent falls.

Then fuel suddenly recovers its biography, storage history, contract structure, logistics chain and multi-generational family tree.

€0.07 Discounts Show The Buffer

Fuel networks can offer discounts of €0.07 per litre.

Sometimes through an app. Sometimes with limits. Sometimes without any real condition beyond participation in a programme. I use such discounts myself.

If millions of litres can be sold €0.07 cheaper, the base price clearly has a meaningful buffer.

This is not a product priced “to the edge.”

This is a product with room.

In my assessment, in situations like today, when prices allegedly cannot be reduced because of “stored inventories,” the price may contain around €0.26 of margin or pricing space. In normal conditions it may be around €0.12-0.14.

But leave the exact margin aside.

Let fuel companies make money.

Really.

Just stop destabilising the economy.

Transport Pays Immediately

Heavy transport does not price freight dynamically like an exchange.
Transport companies often operate on fixed kilometre rates, contracts, accepted orders and negotiated terms.
If fuel rises by €0.23 net per litre, and a truck consumes around 28 litres per 100 km, the cost increases by:

€6.53 per 100 km

On a 1,000 km route, that is:

€65.33 of additional cost

Margins in transport are not huge.
Such a jump can eat the profitability of an order.
If fuel is priced on spot, then transport should also price freight on spot. Daily. Dynamically. Up and down.

Sounds absurd?

Of course.
That is exactly why fuel should not behave like a financial instrument repriced every day.

Inflation Does Not Come From Nowhere

Fuel does not become more expensive in a vacuum.
Higher fuel prices raise the cost of transport, delivery, production, services, commuting, food and trade.
That enters final prices.
It creates inflation.
It reduces the real value of money.
It transfers the cost of instability to society.
That is why fuel pricing is not a private matter of fuel companies.

It is a parameter of economic operation.

CPN: When Consumer Protection Becomes Margin Space

The state tried to protect consumers.

But badly designed protection can become a gift to the sector it was supposed to limit.

Using Orlen as an example:

- before the change, the price was €1.66/litre
- after reducing VAT and excise duty to the EU minimum, the price should have been around €1.38/litre
- the ceiling was €1.44/litre
- stations sold fuel at around €1.44/litre

That leaves around €0.054/litre above what would have resulted from the tax reduction itself.

If Brent did not justify that difference at the time, then it was not an increase in crude cost.

It was margin space.

The state reduced taxes.

The customer was supposed to receive a lower price.

The market pulled the price up to the ceiling.

The programme cost over €930 million.

Society paid once at the pump and a second time through the state budget.

And the fuel sector could still capture part of the value of that protection.

That is not stabilisation.

That is a badly designed mechanism that allowed margin to rise.

Solution One: A Regulated EU Price Ceiling

The first real solution is a regulated maximum fuel price at EU level.

Not a political price pulled from nowhere.

A technical formula.

Crude or reference fuel price, USD exchange rate, refining cost, logistics, taxes, fees, allowed margin and stabilisation buffer.

Updated once per quarter.

Fuel companies may sell cheaper, but not above the ceiling.

In that model, companies must adjust inventories, contracts, production and hedging to the regulatory cycle.

Just like normal companies adjust to offers, contracts and commodity risk.

If the formula produces a quarterly maximum price, the company must manage its business within that price. It has scale, inventories, logistics, trading, contracts and specialists for that.

It cannot push every market nerve onto the final customer every day.

The maximum price does not have to be low.

It has to be transparent, technical and stabilising.

Solution Two: Full Transparent Spot

The second solution is full transparent spot pricing.

If the market wants to price fuel dynamically, fine.

But then do it honestly.

Price updates twice a day: 00:00 and 12:00.

Public system/API.

One official price for Pb95, Pb98, diesel, LPG and premium fuels for each network.

The price applies to all stations of that network in the country.

The public page must show the layers of the price:

- crude/reference fuel,
- dollar,
- refining,
- logistics,
- taxes,
- margin,
- final price.

If spot applies, it applies both ways.

Spot up, price up.

Spot down, price down.

No more stories in which Brent raises the price immediately, but its fall has to pass through a mystical maturation process inside storage tanks.

At European level, there should also be real fleet contracts for international transport: guaranteed prices for three months across all stations of a network and its partner stations in Europe.

Transport must be able to calculate costs.

You cannot run a serious economy with fuel as a moving target.

Show The Numbers

If fuel pricing logic is honest, show it.

Not press releases.

Not a Brent chart in a presentation.

Numbers.

Show the first half of 2025 and the first half of 2026, month by month:

- January 2025 to January 2026,
- February 2025 to February 2026,
- March 2025 to March 2026,
- April 2025 to April 2026,
- May 2025 to May 2026,
- June 2025 to June 2026.

Show:

- average crude purchase cost,
- average refining cost,
- crude inventory levels,
- fuel inventory levels,
- average wholesale price,
- average retail price,
- refinery margin,
- retail margin,
- sales volume,
- operating profit,
- operating profit per litre.

If everything was just a normal cost reaction, defending this model should not be difficult.

The CMA in the UK could require data on revenues, costs, sales, inventories and margins from major fuel retailers.

The same should be standard across Europe for a critical resource.

But of course no fuel company is likely to show this voluntarily.

Because then we might see that profits in the same months of the previous year were much lower, and that the crisis did not only raise costs. It allowed a massive premium to be captured on every litre of fuel.

China, The West And The Wild West

We do not have to treat China as a moral or political model.

But we cannot pretend that China does not understand one thing better than the West: critical resources must be managed systemically.

Fuel, energy, water, food, logistics and critical infrastructure cannot be left to uncontrolled price chaos under the slogan of free market.

Free market, yes.

Wild West, no.

This is not about manually controlling every price from the centre.

It is about frameworks, update cycles, transparency, public formulas and predictability.

And If The Market Still Refuses Logic

If fuel companies do not want a regulated maximum price.

If they do not want full transparent spot.

If they do not want a transparent system, public price layers and symmetry up and down.

Then let fuel be expensive.

Let it be €1.75/litre for a quarter.

Let it be €1.74 or €1.76 next quarter.

Let them keep a huge buffer.

Let them make money.

But make the price stable.

Because the economy can adapt to a high cost.

It cannot function normally when one of its core costs behaves like a moving target.

A high fuel price will create inflation. Yes. Everything will become more expensive. The market will need time to adapt. A year, two years, maybe longer.

But then a new calculation base emerges.

Companies adjust rates, contracts, freight, logistics, product prices and margins.

The current model is worse because it gives no base.

It gives spikes, stress, uncertainty and risk that can kill smaller companies faster than they can update their pricing.

This is not my preferred solution.

As a systems architect, I am not arguing for expensive fuel.

I am arguing for the end of chaos.

First: a regulated EU maximum price.

Alternatively: full transparent spot.

And if the market refuses any honest architecture, then it should at least stop pretending that daily price lottery is a free market.

Because today we do not have a market.

We have critical infrastructure priced like a private machine for capturing panic premiums.

And that has to end.

Mateusz Chrzanowski

System of systems architect