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Transparency?

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by

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Abstract

At the end of 2013, the Market Transparency Agency for Fuels (MTS-K) was introduced in Germany: Gas stations must report every price change to the agency within five minutes, and retail consumers can now check current fuel prices through consumer information services. As a result of the Iran War, the Austrian Fuel Price Rule was introduced in Germany in the spring of 2026, effective April 1, 2026, under which gas stations are permitted to raise prices only at 12:00 noon. This paper examines what the Transparency Agency has achieved for competition (economically) over the past twelve years. Descriptively, following the introduction of the MTS-K, first, prices for E5 gasoline and diesel fell slightly or remained relatively low; in 2022, there were sharp price increases that were not fully reversed later on. Second, retail prices closely track crude oil prices, though this correlation has become less clear in recent times. Third, until the start of the war in Ukraine, Germany was a low-price country in terms of net fuel prices—at least compared to its neighboring countries. Fourth, the significantly increased number of daily price cycles is striking, and fifth, the difference between the daily high and low prices has risen sharply. Sixth, at least recently, prices in rural areas have been higher than in urban areas. And seventh, the price differences between individual weekdays, between Sundays/holidays and weekdays, and between non-holiday and holiday days have disappeared. The rise in daily price cycles is evidence of intense price rivalry at gas stations. It is not, by itself, evidence that prices were driven to the competitive floor.

JEL-Classification: K21, L13, L41, L91

Keywords: Market transparency, mandatory price disclosure, retail gasoline, price cycles, German competition law

I Introduction

In December 2013, the Market Transparency Agency for Fuels (MTS-K) was introduced in Germany as a permanent institution: Gas stations must report every price change for the most important fuel types to the transparency agency within five minutes. Retail consumers can now find current fuel prices through authorized consumer information services. In response to rising gas station prices resulting from the Iran War in the spring of 2006, Germany introduced the "Austrian Gas Price Rule" on April 1, 2006, under which gas stations are permitted to raise prices only at 12:00 noon; price reductions remain possible at any time.¹ In this respect—quasi as a natural experiment—there has been a period spanning twelve years and four months during which the German gas station market relied solely on the Transparency Office's mechanisms when it came to price formation in the fuel market. The German design is unusual among fuel-price regimes: every publicly accessible station must report each change in E5, E10, and diesel prices to the Federal Cartel Office within five minutes; the agency does not run a public website of its own, but forwards the data to licensed consumer-information services; and volume data are not collected. This paper aims to evaluate what this "experiment" has yielded for competition (in economic terms). The establishment and implementation of the MTS-K in Germany took place entirely within the framework of German competition law. The Act Against Restraints of Competition (*Gesetz gegen Wettbewerbsbeschränkungen*, GWB) was amended for this purpose. Consequently, this also raises issues under competition law.

A well-known tension in competition economics is that greater price transparency can cut consumer search costs and intensify retail competition, but can also make it easier for oligopolists to monitor rivals and to punish deviations. Early reduced-form evaluations of the MTS-K itself, based on weekly or monthly national averages through 2015, were mixed: Dewenter, Heimeshoff, and Lüth found slightly higher gasoline prices and slightly lower diesel prices, while Buchholz and Tode found no significant effect.² Later work using station-level data and longer samples points to modest price reductions whose size depends on market structure. Comparing Germany with France, Montag, Sagimuldina, and Winter find that mandatory price disclosure lowered retail prices, with stronger effects where prior consumer information was low, and the number of local sellers was high.³ Using synthetic difference-in-differences through 2018, Bernhardt, Breiderhoff, and Dewenter estimate a long-run reduction of about two to three cents per liter in Germany, while in Austria a later transparency layer appears to have offset the price-reducing effect of the 2011 restriction on price increases.⁴ Two further results matter for the interpretation of the German experiment. First, algorithmic pricing software became widely available in 2017; Assad, Clark, Ershov, and Xu show that adoption raised retail margins, but only in non-monopoly markets and, in tight oligopolies, only when

¹ Bundestag. Bundestag Approves Coalition's Fuel Measures Package, <https://www.bundestag.de/dokumente/textarchiv/2026/kw13-de-kraftstoffmassnahmenpaket-1156704>. Retrieved June 5, 2026.

² Dewenter, R., Heimeshoff, U., & Lüth, H. (2017). The impact of the Market Transparency Unit for Fuels on gasoline prices in Germany. *Applied Economics Letters*, 24(5), 302–305; Buchholz, I., & Tode, C. (2016). Do consumers really pay less at the pump thanks to the Market Transparency Unit for Fuels? *Energiewirtschaftliche Tagesfragen*, 66(1/2), 33–35. These two studies are discussed again in Section VI.C.

³ Montag, F., Sagimuldina, A., & Winter, C. (2026). When does mandatory price disclosure lower prices? Evidence from the German fuel market. *Journal of Political Economy Microeconomics*, 4(1). <https://doi.org/10.1086/734145>.

⁴ Bernhardt, L., Breiderhoff, X., & Dewenter, R. (2025). New evidence on price effects of transparency regulations in European fuel markets. *Journal of Industry, Competition and Trade*, 25, Article 4. <https://doi.org/10.1007/s10842-024-00438-1>.

competing stations adopted as well.⁵ Second, full real-time listing of all stations is not necessarily optimal for consumers: Martin’s structural estimates imply an inverted U-shaped relationship between transparency and consumer welfare, with welfare maximized when search platforms display only the lowest-priced stations rather than the entire price distribution.⁶

This paper does not re-estimate the average treatment effect of the 2013 reform. Its contribution is threefold. First, it provides a competition-law account of how the MTS-K was designed, implemented, and constrained—including the decision not to collect volume data and the limits on who may receive the data. Second, it assembles a descriptive record of gross and net prices, crude-oil co-movement, cross-country comparisons, intraday cycles, spreads, and urban–rural differences through February 2026, immediately before the Austrian-style restriction on price increases took effect. Third, it evaluates the twelve-year “transparency-only” regime as a competition-policy instrument at the moment that regime ends. The descriptive picture is consistent with more intense price rivalry at the pump—above all the rise in daily cycles—but it cannot show that retail prices were driven to the competitive floor, especially given the collusion-prone structure of the upstream stages documented in the Federal Cartel Office’s refinery and wholesale inquiry.

The implementation and effects of the MTS-K depend on how the German fuel market works, including the upstream stages of crude oil exploration and import, refining, and wholesale (Section II). The Transparency Agency was established against the backdrop of a specific debate and was met with high expectations (Point III). Section IV provides a summary of the implementation under competition law. The collected data may only be disclosed and used within strict limits (Chapter V). For these homogeneous products, higher market transparency may be reflected in more price competition (Section VI). Chapter VII summarizes the findings and draws the key conclusions.

II The German Fuel Market

The German fuel market can be divided into various stages of the value chain (see Figure 1).⁷ Fuel production begins with the exploration and development of oil fields, followed by the extraction of crude oil, and then the trading of crude oil; the products produced in refineries include gasoline (GL) and diesel fuels (DF), heating fuels such as heating oil (HO), petrochemical intermediates, and other products. Some of these products are stored in warehouses. They are distributed downstream:

- Large quantities of petroleum products are sold directly from the refinery to wholesalers and exporters, as well as to commercial customers (industrial companies, gas station operators, or smaller heating oil dealers). (“Ex-refinery” trade).
- Wholesalers supply commercial customers in particular with smaller quantities.

⁵ Assad, S., Clark, R., Ershov, D., & Xu, L. (2024). Algorithmic pricing and competition: Empirical evidence from the German retail gasoline market. *Journal of Political Economy*, 132(3), 723–771. <https://doi.org/10.1086/726906>.

⁶ Martin, S. (2024). Market transparency and consumer search—Evidence from the German retail gasoline market. *RAND Journal of Economics*, 55(4), 573–602. <https://doi.org/10.1111/1756-2171.12485>.

⁷ Federal Cartel Office, Interim Report on the Ad Hoc Sector Inquiry into Refineries and Fuel Wholesale, 2022, Publication Date: November 28, 2022. https://www.bundeskartellamt.de/SharedDocs/Publikation/DE/Sektoruntersuchungen/Sektoruntersuchung_Raffinerien_Zwischenbericht.html. Retrieved June 1, 2026. 35f.

- Petroleum products reach end consumers through the retail sector, typically via gas stations; for distribution to (commercial) retail customers, there are other retailers for heating oil and, in some cases, for diesel as well.

Intermediaries operate between the individual market tiers in the trade of petroleum products.

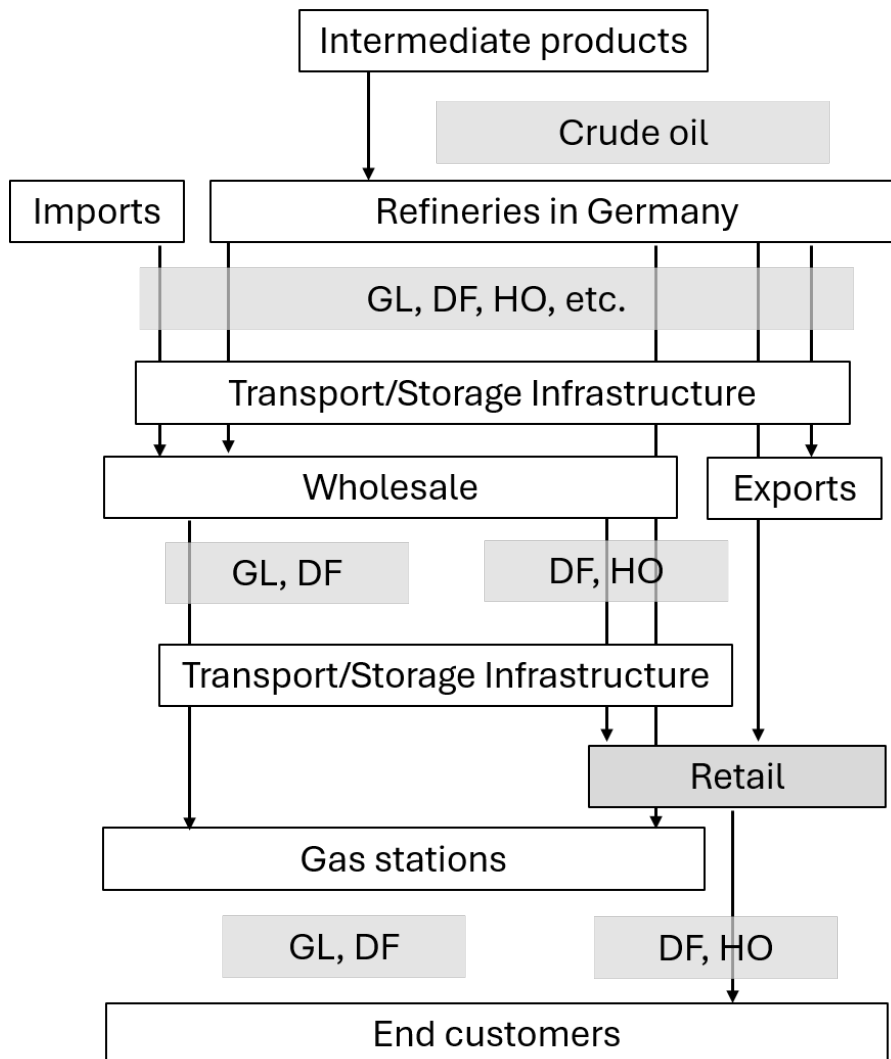


Figure 1: Stages of the value chain in the German fuel market⁸

Following up on the Federal Cartel Office's 2011 sector inquiry into the gas station market, the recently completed sector investigation into refineries and wholesale trade confirmed the collusion risks already identified and, for the first time, highlighted the special role of price notification

⁸ Federal Cartel Office, Interim Report on the Ad Hoc Sector Inquiry into Refineries and Fuel Wholesale, 2022, Publication Date: November 28, 2022.
https://www.bundeskartellamt.de/SharedDocs/Publikation/DE/Sektoruntersuchungen/Sektoruntersuchung_Raffinerien_Zwischenbericht.html. Retrieved June 1, 2026. p. 36.

systems.⁹ Individually, or at least taken as a whole, the market structures at the various stages of the value chain exhibit

- a high level of firm concentration across all markets,
- financially strong suppliers with similar cost and corporate structures,
- interdependencies and mutual dependencies, particularly at the producer and gas station levels,
- high barriers to market entry across the board,
- high market transparency, particularly at the wholesale and gas station levels,
- homogeneous products across all markets, and
- the absence of effective buyer power

There are strong incentives for collusion.

The most recent sector inquiry also considers the price quotation systems in use to be likely anti-competitive, as they increase the risk of collusion.¹⁰ The details of traded transactions are made known to all market participants. Other transactions are then modeled after the published contract terms, whether directly for spot market contracts or for forward contracts — that is, contracts that were concluded previously and for which missing contract details are supplemented with the results of the current price quotation. In particular, the prices from the price quotation now serve as the basis for the contract. While information asymmetries and search costs can be reduced, the use of price quotations in the wholesale distribution of diesel and gasoline as well as light heating oil increases the risk of collusion due to the use of current individual transactions and bids and offers at the international level, minimum and maximum values, the aggregated disclosure of reported trading volumes (in ranges), the wide reach of price information services, and the high frequency of interactions. These factors facilitate coordinated price-setting and make deviations from collusive behavior detectable and, thus, subject to sanctions.

Furthermore, price quotation systems offer opportunities for manipulation.¹¹ If sellers are active in both the spot and futures markets, they may have the incentive and opportunity to influence the price quotes for futures contracts in their favor, for example, by suppressing relevant transactions at the price-quotation level or by falling below minimum data requirements. The same applies to the risk of manipulation in the fulfillment of greenhouse gas (GHG) quotas.

III. The Origins of the Market Transparency Office and Expectations for It

Between 2008 and 2011, discussions intensified regarding developments in the fuel market.¹² Consumers complained about rising prices for gasoline and diesel. Independent gas station operators

⁹ Federal Cartel Office, Sector Inquiry into Refineries and Fuel Wholesale – Final Report, February 2025, https://www.bundeskartellamt.de/SharedDocs/Publikation/DE/Sektoruntersuchungen/Sektoruntersuchung_Raffinerien_Abschlussbericht.html. Retrieved June 1, 2026, paras. 172–189.

¹⁰ Federal Cartel Office, Sector Inquiry into Refineries and Fuel Wholesale – Final Report, February 2025, https://www.bundeskartellamt.de/SharedDocs/Publikation/DE/Sektoruntersuchungen/Sektoruntersuchung_Raffinerien_Abschlussbericht.html, accessed June 1, 2025, paras 189–199.

¹¹ Federal Cartel Office, Sector Inquiry into Refineries and Fuel Wholesale – Final Report, February 2025, https://www.bundeskartellamt.de/SharedDocs/Publikation/DE/Sektoruntersuchungen/Sektoruntersuchung_Raffinerien_Abschlussbericht.html. Retrieved June 1, 2026, paras. 200–212.

¹² Bundestag, Report on the Results of the Work of the Market Transparency Office for Fuels and the Lessons Learned Therefrom (2018), Printed Paper 19/3693, Aug. 3, 2018, paras. 2–3.

raised concerns with the Federal Cartel Office regarding suspected anti-competitive practices by the major oil companies, alleging abuse of market power and price-fixing among the oil companies. The Bundesrat urged the federal government to consider implementing a price-increase cap similar to Austria's, as well as establishing a new body to track fuel prices and publish the results online.

As early as 2008, the German antitrust authority launched a sector inquiry into the gas station market, which culminated in a final report published in May 2011.¹³ To this end, the authority collected price and volume data specific to individual gas stations. The five vertically integrated oil companies—BP/Aral, ConocoPhillips/Jet, ExxonMobil/Esso, Shell, and Total—were deemed to constitute a dominant oligopoly in the (regional) gas station markets. Recurring pricing patterns (dependent on the time of day, day of the week, and holidays) were identified, though no evidence of collusive agreements prohibited under competition law was found. According to the final report, the observed pricing patterns were caused by a lack of competition and high transparency in the fuel markets, which allowed oil companies to monitor prices across the board and react to price changes at short notice even without collusion (parallel behavior). In the Authority's view, factors conducive to this parallel behavior by the major oil companies were already present at that time: high combined market shares, high market transparency, product homogeneity, few product innovations, and low price elasticity of demand; in addition, there were interconnections and mutual dependencies among the dominant companies. Small and independent gas stations lack the means to exert competitive pressure, and prices set below supplier prices for competing stations (price-cost squeezes) could drive small and medium-sized companies out of business. The sector inquiry provided no evidence that these “anti-competitive conditions” might change.

As a result of this debate, the federal government proposed to permanently monitor fuel prices and establish a Market Transparency Unit for Fuels within the Federal Cartel Office.¹⁴ As part of its proposed legislation to establish a Market Transparency Unit for the wholesale electricity and gas markets—which was essentially to be incorporated into the Act Against Restraints of Competition (GWB)—gas station operators would also be required to report all changes in fuel prices, the volumes sold at those prices, and the upstream refinery and wholesale prices along with the corresponding volumes to the Market Transparency Office on a weekly basis.

The Monopoly Commission¹⁵ was not convinced by the proposed structure of the transparency agency and instead suggested determining fuel prices in real time and making them available to consumers. The government's proposed data collection method was deemed ineffective, and monitoring price-cost spreads was not considered necessary from a competition policy perspective. With real-time data, drivers could make timely price comparisons among gas stations; in the medium term, this would increase consumer price sensitivity and thereby strengthen competition. From an organizational standpoint, private consumer organizations could fulfill the reporting obligation.

Ultimately, Section 47k of the German Act Against Restraints of Competition (GWB) established the reporting obligation to the Federal Cartel Office (*Bundeskartellamt*, BKartA) and the MTS-K. The data

¹³ Federal Cartel Office, Sector Inquiry on Fuels – Final Report, May 1, 2011, <https://www.bundeskartellamt.de/SharedDocs/Publikation/DE/Sektoruntersuchungen/Sektoruntersuchung%20Kraftstoffe%20-%20Abschlussbericht.html>. Retrieved May 31, 2026.

¹⁴ Bundestag, Report on the Results of the Work of the Market Transparency Agency for Fuels and the Lessons Learned Therefrom (2018), Parliamentary Document 19/3693, August 3, 2018, p. 3.

¹⁵ Monopoly Commission, Main Report XIX (2010/2011) – Statement on the planned Market Transparency Office in the Federal Government's draft bill of May 2, 2012, paras. 141–145.

is collected electronically, and private companies make it available to consumers. However, volume data is not collected.

The following objectives were pursued with the MTS-K:¹⁶

- Initially, the focus was on examining fuel pricing to assess its competitiveness, particularly to detect antitrust violations.
- To reduce information gaps among consumers to make it easier for them to choose suitable gas stations and thereby strengthen competition. The goal is to promote prices that are in line with competition, not simply low prices.
- Abuse of market power at the expense of small and medium-sized enterprises is to be reduced. Of course, this will be difficult because the reporting of purchase prices and volume information was ultimately eliminated.
- The aim is to facilitate merger control, enable sector inquiries, provide the Monopoly Commission with data, and meet the federal government's statistical needs.

IV Legal Implementation

The role of the Market Transparency Unit for Fuels (MTS-K)¹⁷ is established by Section 47k of the German Act Against Restraints of Competition (GWB), which was incorporated into German competition law in December 2012 at the same time as the provisions governing the Market Transparency Unit for the wholesale trade in electricity and gas, and by the Ordinance on the Market Transparency Unit for Fuels (MTS-Fuel Ordinance). The Regulation, which essentially entered into force on March 29, 2013, specifies the reporting requirements in greater detail, governs potential applications for exemptions (low sales volumes, cases where compliance with the reporting requirement would constitute an unreasonable hardship, etc.), and regulates data sharing, including the authorization of consumer information services. Oil companies that set prices for gas station operators, or the operators of publicly accessible gas stations themselves, must report every price change for the fuel types E5 and E10 gasoline and diesel to the MTS-K within five minutes. The MTS-K may electronically share the price data it collects with providers of consumer information services. If there are grounds for suspecting antitrust violations, the MTS-K informs the relevant antitrust authorities and refers the case to them, along with all necessary information and data. The MTS-K forwards the data to the Federal Cartel Office for pending merger control proceedings, makes it available to the antitrust authorities for sector inquiries, grants the Federal Ministry of Economics access to it for statistical purposes, and provides the Monopoly Commission with access to the data in the course of its duties.

Organizationally,¹⁸ the MTS-K was established as part of the Federal Cartel Office. At the end of 2012, a special task force consisting of about five employees was established and later supplemented with additional staff, including those on fixed-term contracts. The employees entrusted with setting up the unit primarily had professional backgrounds in economics, law, or IT. The affected associations and

¹⁶ Bundestag, Report on the Results of the Work of the Market Transparency Agency for Fuels and the Lessons Learned Therefrom (2018), Parliamentary Document 19/3693, August 3, 2018, p. 6.

¹⁷ Bundestag, Report on the Results of the Work of the Market Transparency Agency for Fuels and the Lessons Learned Therefrom (2018), Parliamentary Document 19/3693, August 3, 2018, p. 4.

¹⁸ Bundestag, Report on the Results of the Work of the Market Transparency Agency for Fuels and the Lessons Learned Therefrom (2018), Parliamentary Document 19/3693, August 3, 2018, p. 5.

companies were involved as closely as possible in the setup process, including by creating a dedicated website. The website provided general information on the tasks and activities of the MTS-K, including online forms for the registration of entities subject to reporting requirements, links to the law and the implementing regulation, as well as guidance on obtaining authorization as a consumer information service. The Federal Highway Research Institute (BAST) was brought on board as a cooperation partner for the technical collection and transmission of fuel price data; a similar data transmission system already existed in the form of BAST's Mobility Data Marketplace.

In principle,¹⁹ the MTS-K operates as shown in Figure 2. Price-setting authorities are either the operators of public gas stations, who set prices independently, or those who dictate prices to the operators. A large number of price-setting entities report basic and pricing data for their gas stations to the Market Transparency Office, either directly or through price reporters designated to the MTS-K. Price reporters are technical service providers who can be replaced at any time and who act as agents to facilitate the transmission of data to the Market Transparency Office. The MTS-K forwards the data to consumer information services (see Figure 2). In accordance with the regulation governing the MTS-K, information service providers must demonstrate that they will achieve the objectives of the law, in particular, the improvement of market transparency; a complaints office must be established, and any complaints must be regularly forwarded to the MTS-K.

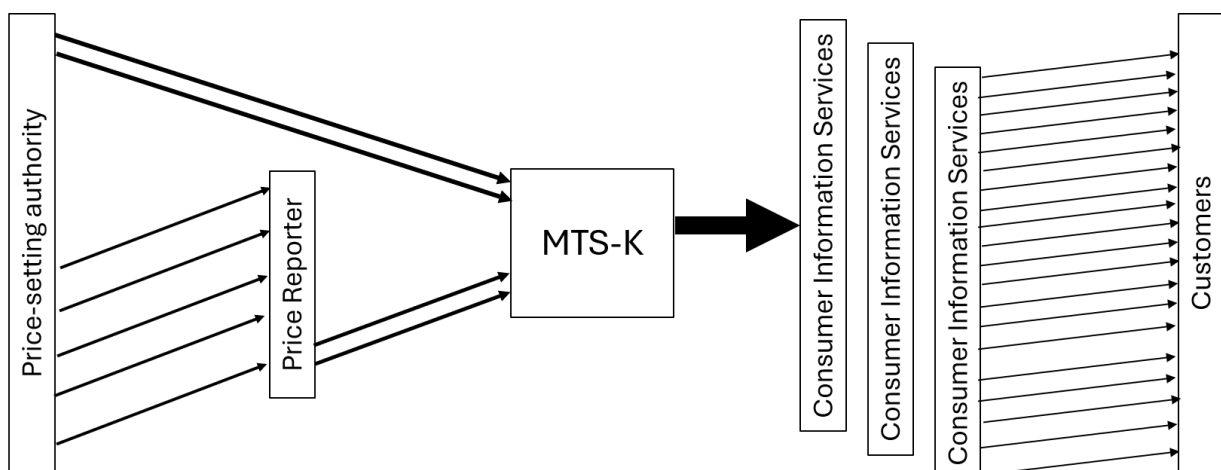


Figure 2: How the MTS-K Works²⁰

The MTS-K was put into operation in 2013.²¹ In April 2013, shortly after the regulatory ordinance was issued, the reporting office began registering entities subject to the reporting requirement. The partnership with the BAST was announced as early as May 2013. The first approvals of information services were granted in August 2013. By mid-August 2013, the basic data for at least 13,000 gas stations had been recorded, and three consumer information services had been approved. On August 31, 2013, the reporting requirement took effect in accordance with the ordinance. Following the successful completion of the test phase, regular operations began on December 1, 2013.

¹⁹ Bundestag, Report on the Results of the Work of the Fuel Market Transparency Agency and the Lessons Learned Therefrom (2018), Printed Paper 19/3693, August 3, 2018, p. 7.

²⁰ Source: Bundestag, Report on the Results of the Work of the Market Transparency Office for Fuels and the Lessons Learned Therefrom (2018), Parliamentary Document 19/3693, August 3, 2018, p. 29.

²¹ Bundestag, Report on the Results of the Work of the Market Transparency Agency for Fuels and the Lessons Learned Therefrom (2018), Parliamentary Document 19/3693, Aug. 3, 2018, p. 8.

As of August 2018,²² there were approximately 2,000 price authority holders; each year, there are nearly 500 notifications or changes to the master data. Of the approximately 14,500 gas stations, nearly all are recorded in the MTS-K. Every year, there are thousands to tens of thousands of reports of violations, which are automatically transmitted to the MTS-K by the information services; in most cases, the issues are quickly resolved or clarified. In principle, however, fines may also be imposed. Initially, 30 applications for registration were submitted. Contrary to expectations, there were many more applications for registration. The applications are often incomplete. There are also applications that are more or less obviously intended as sources of information for the petroleum industry. The agency views them as contrary to the law's purpose and rejects them. Consumers are informed via websites or special apps; additional information and features (filters, notifications, payment options, etc.) are often provided as well.

V. Disclosure and Use of Data

According to the MTS-K, 43 consumer information services are currently authorized.²³ Table 1 lists the authorized services, provides links to their websites, and indicates whether iOS or Android apps are available.

Table 1: Authorized Consumer Information Services

Name	Website	iOS-App?	Android-App?
ADAC	www.adac.de/tanken	x	x
Clever-Tanken	www.clever-tanken.de	x	x
Mehr-Tanken	www.mehr-tanken.de	x	x
Tanke-Günstig	www.tanke-guenstig.de		
Tanken Tanken	www.tankentanken.de		
1-2-3 Tanken	www.123tanken.de	x	x
Tanken Billiger	www.tankenbilliger.de		
YouPickIt	www.youpickit.de	x	
Navx	www.navx.com/tanken		
Tankexperte	www.tankexperte.de		
Spritpreisalarm	www.spritpreisalarm.de	x	x
Tankerkönig	www.tankerkönig.de		
Billig-Tanken.de	www.billig-tanken.de		
Zapfpreis	www.zapfpreis.de		
Benzinpreis Aktuell	www.benzinpreis-aktuell.de		
Spritspion	www.sprit-spion.de	x	x
Sparpionier	-		x
Enerquick	www.enerquick.info	x	x
Tanken.de	www.tanken.de		
Kraftstoffbilliger.de	www.kraftstoffbilliger.de	x	x
Benzinpreis-Blitz	www.benzinpreis-blitz.de		x

²² Bundestag, Report on the Results of the Work of the Market Transparency Agency for Fuels and the Lessons Learned Therefrom (2018), Printed Paper 19/3693, August 3, 2018, p. 8.

²³ Federal Cartel Office, Consumer Information Services http://www.bundeskartellamt.de/DE/Aufgaben/MarkttransparenzstelleFuerKraftstoffe/TankApps/tankapps_node.html, as of June 1, 2026. Retrieved June 1, 2026.

Tank Navigator	www.tank-navigator.de		x
TankBillig.info	www.tankbillig.info		
ich-tanke.de	www.ich-tanke.de		
ACE	www.ace.de/autoclub/ace-app/	x	x
Spritzkostenrechner	www.spritzkostenrechner.de		
Spritzmelder	-		x
Tankplaner	-		x
Tankmonitor	www.tank-monitor.de		
xavvy fuel			x
Driverslog Pro	www.driverslogpro.de/	x	x
sprit.me	www.sprit.me		
Tankschwein	-		x
benzinpreis.de	www.benzinpreis.de	x	x
BenzinPreise24	www.benzinpreise24.de		
ACV Automobil-Club Verkehr e.V		x	x
Teuer Tanken	www.teuer-tanken.app	x	x
tankste!	www.tankste.app	x	X
Esyoil	www.esyoil.com/benzinpreise/		X
Onlinestreet	https://onlinestreet.de/tankstellen/		
Spritzpreise Deutschland	https://tanken.fyi/de/app	x	x
bessertanken.de	https://bessertanken.de	x	x

x = available

This overview of consumer information services is based on data from MTS-K. The following evaluation findings are available for these services through 2018.²⁴ According to the findings of the Federal Cartel Office, which conducted the evaluation, information service providers are highlighted in the press with their information offerings during periods when (rising) fuel prices are in the public eye or during times of high demand, such as vacation seasons. The Federal Cartel Office also highlights these services in its relevant publications. The Office further suspects that word of experience with these services spreads among friends and relatives. The ability to assess fuel prices in real time has improved. A market research institute commissioned by the Federal Ministry for Economic Affairs and Energy surveyed, in particular, individuals who must pay for their fuel costs out of their own pockets. The apps and websites based on MTS data are widely known and used correctly. About three-quarters of those surveyed have heard of these services, and one-third have used them at least once. Of these, two-thirds use the services regularly or at least occasionally. However, contrary to expectations, younger consumers do not use them more frequently than older ones. Overall, one-quarter of respondents typically use these services. The consumer information services confirm this usage pattern; approximately one million can be classified as “unique users” or “unique visitors” per month. The growing appeal of these services to advertisers is also seen as indirect evidence of their increasing acceptance.

Inquiries regarding the data also came from researchers.²⁵ In particular, the source citations in academic publications show that the data was made available by the consumer information services (largely) free of charge. The Transparency Office has therefore consistently rejected researchers’ requests for data sharing. “Alternatively,” however, one could also argue that the publications reduce information asymmetries and thus align with the economic policy objective of the MTS-K.

²⁴ Bundestag, Report on the Results of the Work of the Market Transparency Office for Fuels and the Lessons Learned Therefrom (2018), Printed Paper 19/3693, August 3, 2018, p. 11.

²⁵ Bundestag, Report on the Results of the Work of the Market Transparency Agency for Fuels and the Lessons Learned Therefrom (2018), Printed Paper 19/3693, August 3, 2018, p. 12.

Furthermore, publications do not use current data; when data are used, they are only in aggregated form.

VI Effects on Prices

For homogeneous products such as fuels, one would typically assess the intensity of competition based on price developments. Statements regarding price developments based on MTS-K data usually refer to average prices at a specific point in time or over a specific period.²⁶ However, since the database lacks information on the quantities purchased at each point in time, the economic relevance of the (aggregated) price reports remains unclear. Fuel prices at (German) gas stations are influenced by

- the level of crude oil prices,
- the \$/€ exchange rate for imports,
- the energy tax (65.45 ct. for gasoline, 47.04 ct. for diesel) and value-added tax (19%),
- transportation costs to the gas station, and the gas station's operating costs (costs for buildings/land, equipment, personnel, etc.); gas stations owned by major oil companies can purchase fuel from their parent company, while independent gas stations source fuel from wholesalers or from the oil companies.²⁷

According to a consumer survey commissioned by the Federal Ministry of Economics and conducted by a market research institute, for over 50 percent of respondents, price is by far the most important factor in choosing a gas station, even more so than location. Nearly three-quarters of respondents state that they pay closer attention to fuel prices than they used to. About half would already refuel at a different time of day or at a different gas station to save up to five cents per liter, and over three-quarters would do so to save up to 10 cents per liter. Approximately one-quarter specifically choose to fill up at different times of day or at different gas stations, and about another 20 percent do so occasionally. Overall, the willingness to change refueling times is evidently higher than the willingness to change gas stations.²⁸

Section A describes the historical development of German gas station prices, both gross and net (excluding taxes). Section B examines the trend in retail prices "in relation" to the trend in crude oil prices. Indirectly, the effect of the MTS-K on German gas station prices can be inferred from whether prices are lower or higher than in other European countries, particularly after accounting for tax differences (Section C). German gas station prices fluctuate throughout the day, and these cycles have evidently increased (Point D). At least at times, intraday price differences have also risen (Section E). Section F analyzes whether regional price differences exist. Point G provides a brief interim conclusion.

²⁶ Bundestag, Report on the Results of the Work of the Fuel Market Transparency Agency and the Lessons Learned Therefrom (2018), Parliamentary Document 19/3693, Aug. 3, 2018, p. 14.

²⁷ Bundestag, Report on the Results of the Work of the Fuel Market Transparency Agency and the Lessons Learned Therefrom (2018), Printed Paper 19/3693, August 3, 2018, p. 15.

²⁸ Bundestag, Report on the Results of the Work of the Market Transparency Agency for Fuels and the Lessons Learned Therefrom (2018), Printed Paper 19/3693, August 3, 2018, p. 18.

A Retail Prices

Figures 3 and 4, which are based on data from the European Commission from early 2010 through February 23, 2026 (the last available day before the start of the Iran war), show that from 2014 through early 2021, the average weekly gross and net prices for E5 gasoline and diesel at German gas stations remained at roughly the same level, before a sharp increase occurred—particularly starting in 2022—which only partially leveled off in the following two years.

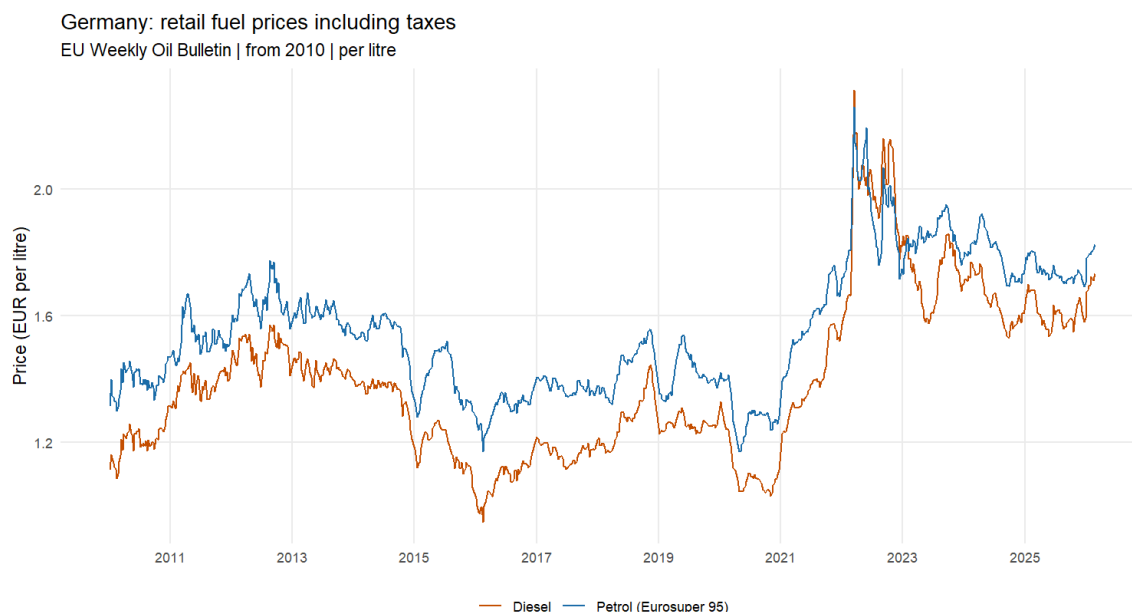


Figure 3: Average weekly German gas station prices in € per liter, 2010–February 23, 2026.²⁹

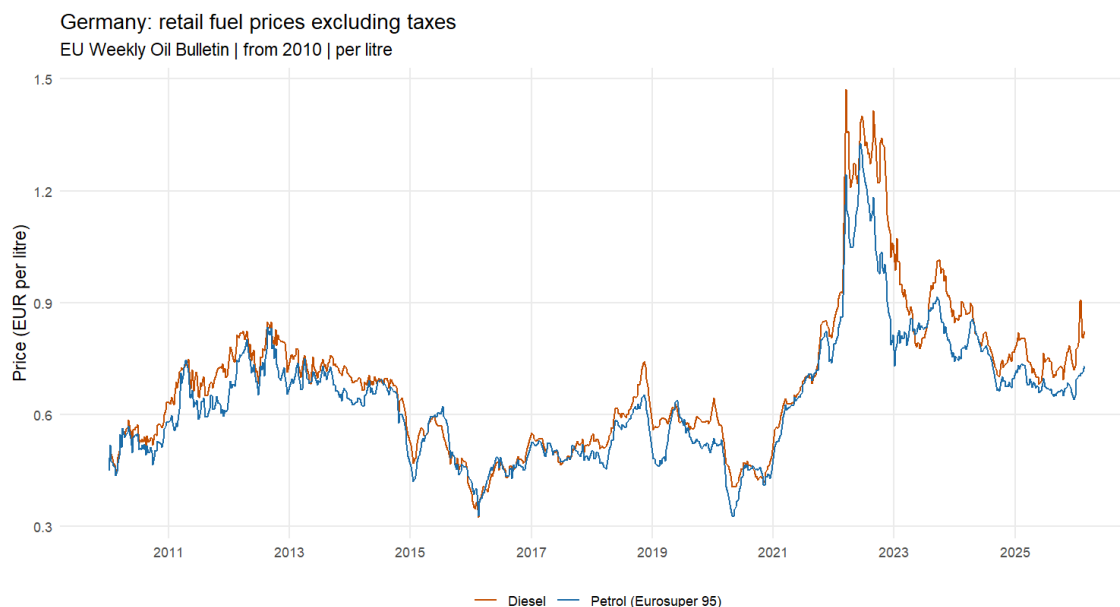


Figure 4: Average weekly German fuel prices excluding taxes in € per liter, 2010–February 23, 2026.³⁰

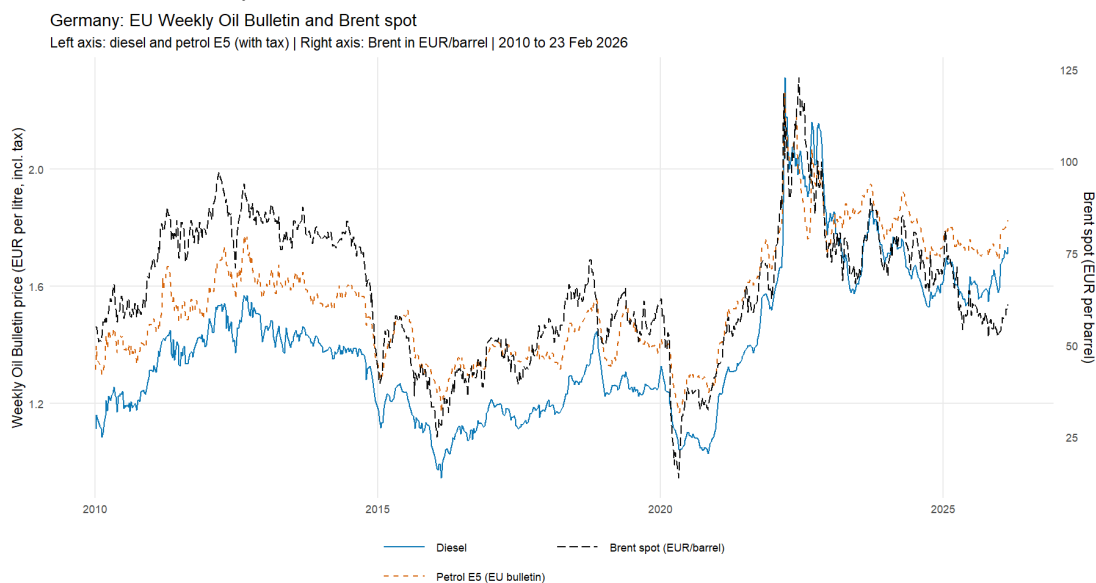
²⁹ Author's own calculations based on European Commission, Directorate-General for Energy (2026), Weekly Oil Bulletin: Prices with taxes [Data set], accessed May 6, 2026, https://energy.ec.europa.eu/data-and-analysis/oil-market/prices_en. Weekly average prices for Super E5 and diesel in Germany, including taxes and levies, in € per liter (converted from €/1,000 l).

³⁰ Author's own calculations based on European Commission, Directorate-General for Energy (2026), Weekly Oil Bulletin: Prices without taxes [Data set], accessed on May 6, 2026, <https://energy.ec.europa.eu/data-and->

According to Haucap et al. (2017),³¹ prices are lower in more heterogeneous local markets; the same applies to an increasing number of competitors and a shorter distance to the nearest competitor. [Haucap et al. (2016),³² Siekmann,³³ and Eibelshäuser/Wilhelm³⁴ find evidence of stronger price competition when gas stations engage in additional business activities and are operated by supermarkets or car washes with limited hours of operation.

B Retail Prices and Crude Oil Prices

In its 2018 evaluation report, the Federal Cartel Office noted that gas station prices essentially tracked petroleum prices. Both gas station prices and their increases can be explained by their parallel trend with crude oil prices.³⁵ The same applies to the report published in the year 2022.³⁶ Our calculations also show this parallel trend (Figure 5). However, starting around mid-2025, there has been a decoupling between crude oil prices and retail prices: crude oil prices have fallen, while retail prices have moved sideways.



[analysis/oil-market/prices_en](#). Weekly average prices for Super E5 and diesel in Germany, excluding taxes and levies, in € per liter (converted from €/1,000 l).

³¹ Haucap, J., Heimeshoff, U., & Siekmann, M. (2017). Fuel prices and station heterogeneity on retail gasoline markets. *The Energy Journal*, 38(6), 81–104.

³²] Haucap, J., Heimeshoff, U., & Siekmann, M. (2016). Selling gasoline as a by-product: the impact of market structure on local prices (No. 240). DICE Discussion Paper.

³³ Siekmann, M. (2017). Characteristics, causes, and price effects: Empirical evidence of intraday Edgeworth cycles (No. 252). DICE Discussion Paper.

³⁴ Eibelshäuser, S., & Wilhelm, S. (2017). Markets Take Breaks: Dynamic Price Competition with Opening Hours. In *VfS Annual Conference 2017 (Vienna): Alternative Structures for Money and Banking* (No. 168247). Verein für Socialpolitik/German Economic Association.

³⁵ Bundestag, Report on the Results of the Work of the Market Transparency Office for Fuels and the Lessons Learned Therefrom (2018), Parliamentary Document 19/3693, August 3, 2018, 15.

³⁶ Federal Cartel Office, Ad Hoc Sector Inquiries—Refineries and Fuel Wholesale: Interim Report, Ref. No. B8-47/22, November 2022,

https://www.bundeskartellamt.de/SharedDocs/Publikation/DE/Sektoruntersuchungen/Sektoruntersuchung_Raffinerien_Zwischenbericht.html. Retrieved June 5, 2026.

Figure 5: Gas station prices for E5 gasoline and diesel, including taxes (left scale in euros per liter) and crude oil prices in euros per barrel—2010–February 23, 2026.³⁷

C Retail Prices in a Europe-Wide Comparison

Through 2018, Austria and the other European countries had higher fuel prices—or at least prices that were not lower—after taxes.³⁸ Dewenter et al.³⁹ and Buchholz/Tode⁴⁰ compared price trends in Germany with those in other European countries from 2005 to the end of 2015 using a difference-in-differences approach, testing whether the introduction of the Market Transparency Agency led to causal price-reducing effects. The analysis is based on nationwide average prices, partly volume-weighted and partly unweighted, on a weekly or monthly basis. Dewenter et al. found gasoline prices to be 1.2–3.3 ct. higher and for diesel to be 2 ct. lower; Buchholz/Tode found no significant effects.⁴¹ Later station-level and synthetic difference-in-differences studies, covering longer post-reform windows, find modest price reductions of a few cents per liter in Germany, with effects that vary by local market structure and by how well consumers were already informed.⁴² Those causal estimates stop well before the 2022 energy price shock and the 2026 regime change. They therefore do not substitute for a descriptive account of the full twelve-year transparency-only period.

In our calculations, we compare pre-tax gas station prices in Germany with those in neighboring countries: Belgium, Denmark, France, Luxembourg, the Netherlands, Poland, Austria, and the Czech Republic. Figure 6 shows that Germany had the lowest net prices for E5 both before and after the introduction of the Market Transparency Agency in late 2013/early 2014. Only when crises arise—such as the war in Ukraine or the looming war with Iran—does Germany slip into the “middle of the pack” or become relatively expensive. A largely similar picture emerges for diesel (Figure 7). At least in normal times, the introduction of the MTS-K appears to have continued to result in relatively low pre-tax fuel prices compared with neighboring countries.

³⁷ Author’s own calculations based on (1) European Commission, Directorate-General for Energy (2026), Weekly Oil Bulletin: Prices with taxes [Data set], accessed May 6, 2026, https://energy.ec.europa.eu/data-and-analysis/oil-market/prices_en; (2) U.S. Energy Information Administration, Crude Oil Prices: Brent – Europe [DCOILBRETEU], via FRED, Federal Reserve Bank of St. Louis, accessed June 3, 2026, <https://fred.stlouisfed.org/series/DCOILBRETEU>; (3) European Central Bank, U.S. dollar/euro ECB reference exchange rate, daily (series EXR.D.USD.EUR.SP00.A), ECB Data Portal, accessed June 3, 2026, <https://data.ecb.europa.eu/data/datasets/EXR/data>. The Brent spot price (USD/barrel) was converted to EUR using the respective daily ECB reference exchange rate (USD/EUR, on or before the observation date). Fuel prices: weekly German averages including taxes, €/liter.

³⁸ Bundestag, Report on the Results of the Work of the Market Transparency Unit for Fuels and the Lessons Learned Therefrom (2018), Parliamentary Document 19/3693, August 3, 2018, p. 15.

³⁹ Dewenter, R., Heimeshoff, U., & Lüth, H. (2017). The impact of the Market Transparency Unit for Fuels on gasoline prices in Germany. *Applied Economics Letters*, 24(5), 302–305.

⁴⁰ Buchholz, I., Tode, C. Do consumers really pay less at the pump thanks to the Market Transparency Unit for Fuels? *Energiewirtschaftliche Tagesfragen*. 2016, Vol. 66(1/2), 33–35.

⁴¹ Bundestag, Report on the Results of the Work of the Market Transparency Unit for Fuels and the Lessons Learned Therefrom (2018), Parliamentary Document 19/3693, August 3, 2018, p. 21.

⁴² Montag, F., Sagimulidina, A., & Winter, C. (2026). When does mandatory price disclosure lower prices? Evidence from the German fuel market. *Journal of Political Economy Microeconomics*, 4(1).

<https://doi.org/10.1086/734145>. Bernhardt, L., Breiderhoff, X., & Dewenter, R. (2025). New evidence on price effects of transparency regulations in European fuel markets. *Journal of Industry, Competition and Trade*, 25, Article 4. <https://doi.org/10.1007/s10842-024-00438-1>.

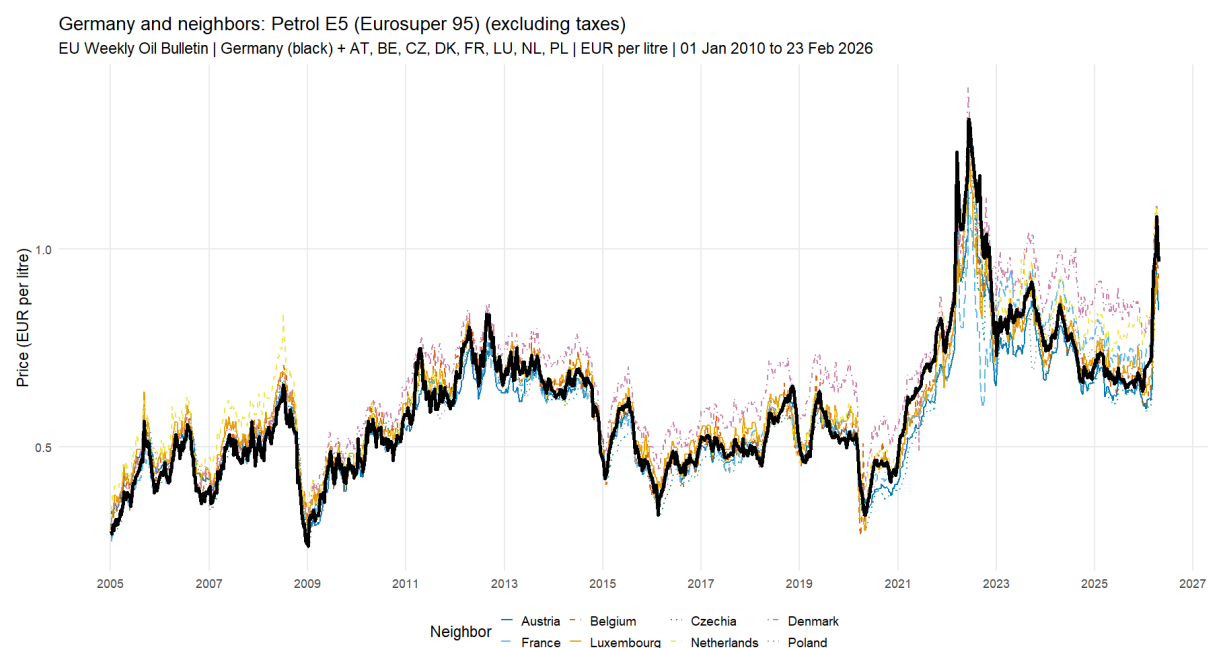


Figure 6: Gas station prices for E5 gasoline excluding taxes, January 1, 2010, to February 23, 2026, in Germany and its neighboring countries.⁴³



Figure 7: Gas Station Prices for Diesel Excluding Taxes, January 1, 2010, to February 23, 2026, Germany and Its Neighboring Countries.⁴⁴

⁴³ Author's own calculations based on European Commission, Directorate-General for Energy (2026), Weekly Oil Bulletin: Prices without taxes [Data set], accessed May 6, 2026, https://energy.ec.europa.eu/data-and-analysis/oil-market/prices_en. Weekly average prices for Super E5 excluding taxes and duties in € per liter; shown for Germany and its neighboring countries Austria, Belgium, Denmark, France, Luxembourg, the Netherlands, Poland, the Czech Republic, and Switzerland (where available in the bulletin).

⁴⁴ Author's calculations based on European Commission, Directorate-General for Energy (2026), Weekly Oil Bulletin: Prices without taxes [Data set], accessed on May 6, 2026, https://energy.ec.europa.eu/data-and-analysis/oil-market/prices_en.

D Intraday Price Cycles

With the introduction of the MTS-K, cyclical fluctuations at gas stations have increased.⁴⁵ By 2018, various patterns had emerged:

- Until mid-2015, high prices were charged at night and in the early morning, which then gradually and continuously declined in small increments as the day progressed. The lowest price level was reached in the evening, before the previous price level was “restored” in the late evening hours with a significant price increase.
- Starting in the summer of 2015, there was another small, general price increase around noon; “in return,” prices fell more rapidly in the morning and afternoon. Over time, the new midday high became higher.
- Higher prices were added in the afternoon around 5:00 p.m. in April 2017, initially only slightly, but later comparable to the higher midday price. Correspondingly, prices fell more sharply after these increases.
- At the beginning of 2018, the relatively high price increases that had occurred in the late evening shifted to the early morning. As a result, it was cheaper to fill up at night, though prices remained high in the early morning.

In the cities monitored in early 2014, there were, on average, about 1.2 price increases and 3.6 price decreases per gas station per day; by early 2018, these figures had risen to 3.1 price increases and 7.4 price decreases per gas station per day. Based on its “investigations,” the Federal Cartel Office suspected that greater price sensitivity among consumers and increased (electronic) publicity of fuel prices could explain the rise in price changes; from a scientific perspective, Eibelshäuser/Wilhelm⁴⁶ and Siekmann⁴⁷ reached similar conclusions. The final report “Sector Inquiry into Refineries and Fuel Wholesale”⁴⁸ found an average of approximately 18 price changes for early 2024; a price spike was added in July/August 2024;⁴⁹ on average, prices remained in effect for between a little over half an hour and one and a half hours, depending on the brand. Restorations of the daily price level are initiated mainly by the major brands, not by contemporaneous price gaps.⁵⁰ The later rise in the number of daily price changes also coincides with the spread of algorithmic pricing software from 2017 onward. That does not overturn the reading of cycles as price rivalry, but it does caution against

analysis/oil-market/prices_en. Weekly average prices for diesel excluding taxes and duties in € per liter; shown for Germany and its neighboring countries (see Fig. 6).

⁴⁵ Bundestag, Report on the Results of the Work of the Market Transparency Agency for Fuels and the Lessons Learned Therefrom (2018), Parliamentary Document 19/3693, August 3, 2018, p. 16.

⁴⁶ Eibelshäuser, S., & Wilhelm, S. (2017). Markets Take Breaks: Dynamic Price Competition with Opening Hours. In Vfs Annual Conference 2017 (Vienna): Alternative Structures for Money and Banking (No. 168247). Verein für Socialpolitik/German Economic Association.

⁴⁷ Siekmann, M. (2017). Characteristics, causes, and price effects: Empirical evidence of intraday Edgeworth cycles (No. 252). DICE Discussion Paper.

⁴⁸ Federal Cartel Office, Sector Inquiry, Refineries and Fuel Wholesale, Final Report Ref. No. V-27/23, February 2025.

https://www.bundeskartellamt.de/SharedDocs/Publikation/DE/Sektoruntersuchungen/Sektoruntersuchung_Raffinerien_Abschlussbericht.html, retrieved June 5, 2026, pp. 158–159.

⁴⁹ Federal Cartel Office, Fuel News, MTS-K Quarterly Report, July 5, 2024, https://www.bundeskartellamt.de/SharedDocs/Meldung/DE/Pressemitteilungen/2024/05_07_2024_Quartalsbericht.html. Retrieved June 5, 2026.

⁵⁰ Kahl, M. P., & Wein, T. (2025). How to reach the paradise? Inside the Edgeworth cycle and why a gasoline station is the first to raise its price. *The Journal of Industrial Economics*, 73(2), 351–383. <https://doi.org/10.1111/joie.12412>

treating more frequent cycles as evidence that margins were compressed: Assad et al. find that algorithmic adoption raised margins when competing stations adopted as well.⁵¹ At the beginning of 2026, there were, on average, six to seven price increases and 16–17 price decreases; this volatility applies to all three fuel types (Figure 8).

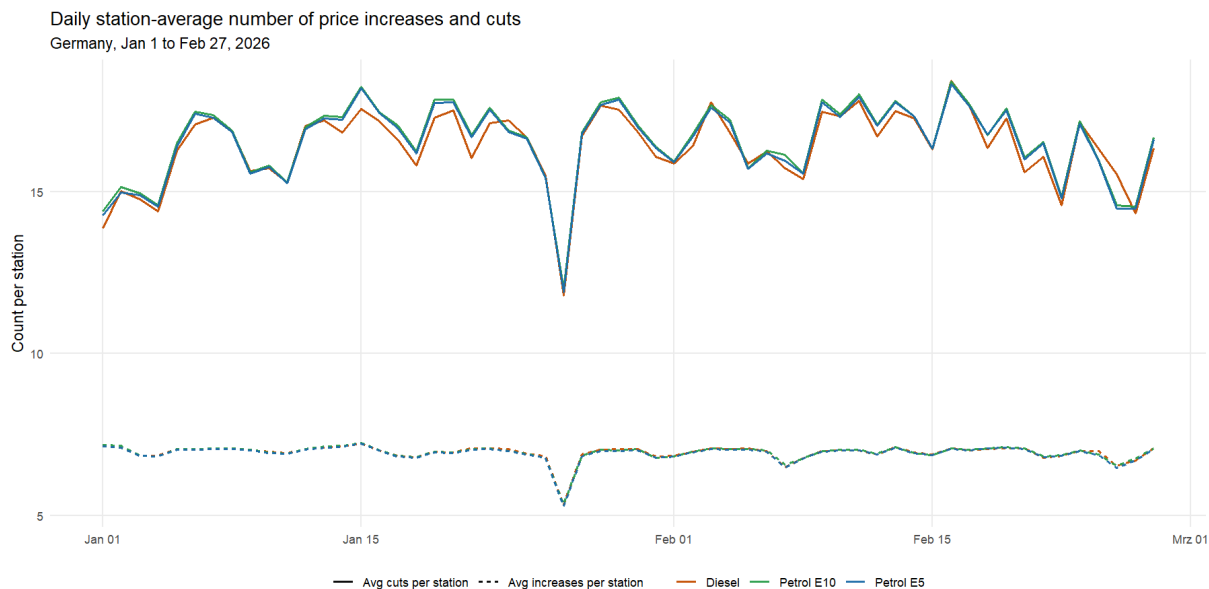


Figure 8: Average Daily Number of Price Increases and Price Decreases – January 2026 – February 23, 2026.⁵²

Following the introduction of the MTS-K, the calendar-day effects that existed prior to its introduction appear to have vanished.⁵³ Prices on holidays are no longer systematically higher; the day of the week also no longer plays a role, and the Friday and Monday peaks have disappeared, unlike in the 2011 sector study.

According to a survey by a market research institute, the vast majority of consumers filled up their tanks at the end of 2016 when prices were at their lowest overall, i.e., between 4:00 p.m. and 8:00 p.m.⁵⁴ Haucap et al.⁵⁵ analyzed price and volume data for selected gas stations in the cities of Hamburg, Cologne, Leipzig, and Munich over several weeks in both 2012 and 2015. They concluded that in 2015, more consumers filled up at low-price times; the increased transparency brought about

⁵¹ Assad, S., Clark, R., Ershov, D., & Xu, L. (2024). Algorithmic pricing and competition: Empirical evidence from the German retail gasoline market. *Journal of Political Economy*, 132(3), 723–771. <https://doi.org/10.1086/726906>.

⁵² Our own calculations based on price and gas station data from the Market Transparency Agency for Fuels (MTS-K), retrieved on May 1, 2026, via the authorized data channel [tankerkoenig.de](https://www.tankerkoenig.de) (<https://www.tankerkoenig.de/>). Analysis period: January 1, 2026–February 28, 2026. Daily average values across all reported gas stations in Germany for Super E5, Super E10, and diesel (minimum, maximum, and median of the daily average price per fuel type).

⁵³ Bundestag, Report on the Results of the Work of the Market Transparency Office for Fuels and the Lessons Learned Therefrom (2018), Parliamentary Document 19/3693, Aug. 3, 2018, p. 15.

⁵⁴ Bundestag, Report on the Results of the Work of the Market Transparency Agency for Fuels and the Lessons Learned Therefrom (2018), Printed Paper 19/3693, August 3, 2018, 16f.

⁵⁵ Haucap, J., Heimeshoff, U., Kehder, C., Odenkirchen, J., & Thorwarth, S. "Impact of the Fuel Market Transparency Agency." *Wirtschaftsdienst*, 2017, 97(10), 721–726.

by the Market Transparency Office had intensified competition and influenced demand behavior. Another smaller peak in demand was observed following the market research institute's survey between 10 a.m. and 12 p.m., i.e., before the midday price increase was already underway.⁵⁶ The major oil companies withheld the more comprehensive volume data requested by the responsible federal ministry.⁵⁷ At 33 selected gas stations, a 2023 graph showed a correlation between low prices and higher sales volumes.⁵⁸ In the opinion of the Federal Cartel Office, it appears that consumers now fill up less frequently during price troughs than they did in the past, perhaps because price fluctuations—and thus intraday price variations—have increased.⁵⁹

E Price Differences

The Federal Cartel Office also examined the extent to which prices differed between neighboring gas stations.⁶⁰ Initially, prices at a single gas station varied by about 10 cents per liter over the course of the day (gas station spread), however, the price differences between the cheapest gas station in a city at the cheapest time and the most expensive gas station in the city at the most expensive time (market spread) are significantly larger—in 2018, they were mostly around 20 cents per liter, and in some cities even as high as 30 cents per liter. In 2018, the spreads initially continued to widen after the Market Transparency Office was launched; more recently, however, they have remained essentially unchanged.

As of the current period—that is, from January 1 to February 23, 2026—Figure 9 shows the differences between the average maximum and average minimum prices for the three fuel types examined in Germany. E5 gasoline ranges from a maximum of 1.85 € to 1.90 € per liter and a minimum of approximately 1.75 € to approximately 1.86 € per liter. E10 and diesel are both below these figures. Looking at the average differences (maximum price minus minimum price; Figure 9), the difference for diesel is usually around 16 ct. per liter, with a possible downward trend; for the two types of gasoline, it is around 14 ct., though the trend is stagnant. On certain days, there are sharp drops. Figure 10 shows the differences in the spreads at individual gas stations.

⁵⁶ Bundestag, Report on the Results of the Work of the Fuel Market Transparency Agency and the Lessons Learned Therefrom (2018), Parliamentary Paper 19/3693, August 3, 2018, p.17.

⁵⁷ Bundestag, Report on the Results of the Work of the Fuel Market Transparency Agency and the Lessons Learned Therefrom (2018), Parliamentary Document 19/3693, August 3, 2018, 17.

⁵⁸ Federal Cartel Office, Sector Inquiry, Refineries and Fuel Wholesale, Final Report Ref. No. V-27/23, February 2025.

https://www.bundeskartellamt.de/SharedDocs/Publikation/DE/Sektoruntersuchungen/Sektoruntersuchung_Raffinerien_Abschlussbericht.html, retrieved June 5, 2026, p. 164.

⁵⁹ Federal Cartel Office, Sector Inquiry, Refineries and Fuel Wholesale, Final Report Ref. No. V-27/23, February 2025.

https://www.bundeskartellamt.de/SharedDocs/Publikation/DE/Sektoruntersuchungen/Sektoruntersuchung_Raffinerien_Abschlussbericht.html, retrieved June 5, 2026, p. 164.

⁶⁰ Bundestag, Report on the Results of the Work of the Market Transparency Office for Fuels and the Lessons Learned Therefrom (2018), Printed Paper 19/3693, August 3, 2018, p. 17.

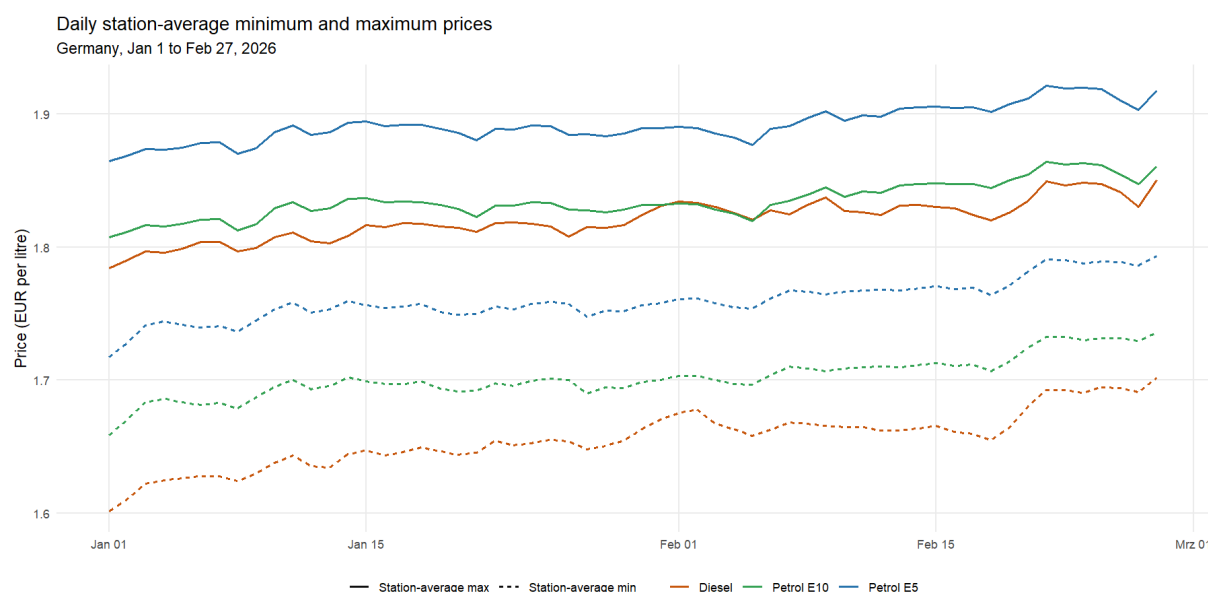


Figure 9: Daily averages of station-level minimum and maximum prices⁶¹

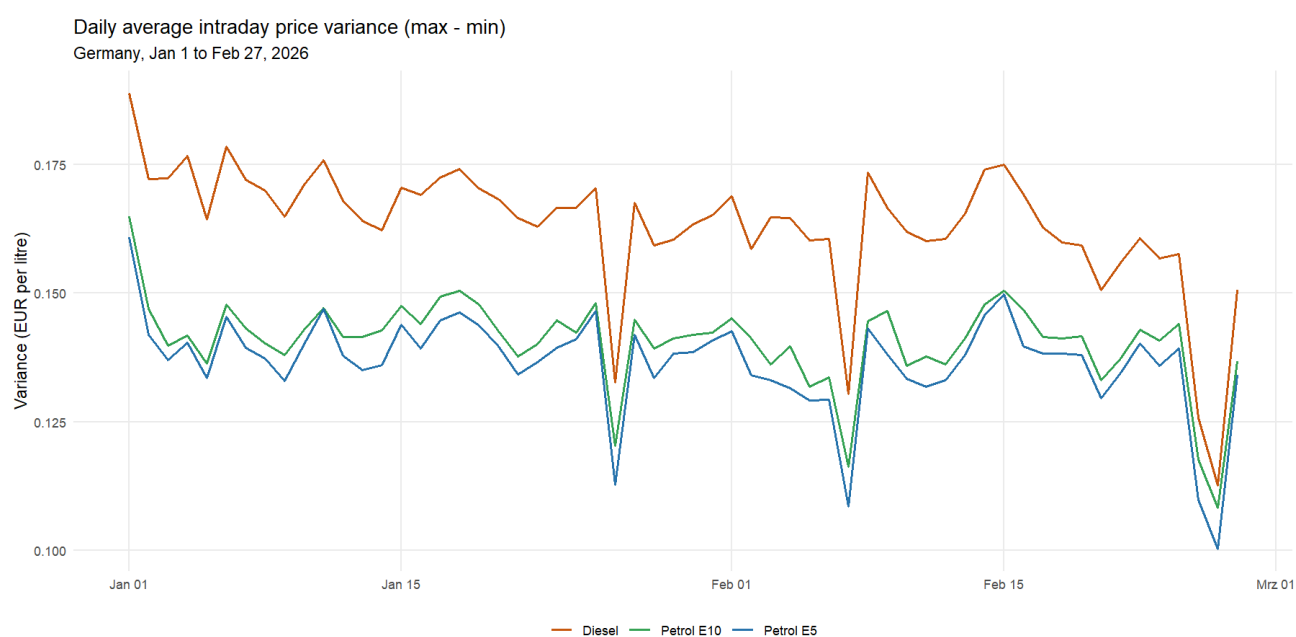


Figure 10: Daily averages of station-level minimum and maximum prices (gas station spreads) Jan. 1–Feb. 23, 2026.⁶²

⁶¹ Author's own calculations based on MTS-K price data (see Fig. 8). For each day and each fuel type: Difference between the average daily high price and the average daily low price across all gas stations (gas station level, not retailer level). Data retrieved on May 1, 2026, from tankerkoenig.de (<https://www.tankerkoenig.de/>).

⁶² Author's own calculations based on MTS-K price data (see Fig. 8). For each gas station and each day: difference between the daily high and daily low prices (intraday spread per gas station); the figure shows the daily averages of this spread across all gas stations. Data retrieved on May 1, 2026, from tankerkoenig.de

F Regional Price Differences

Until 2018, there was no clear evidence of regional differences—neither along urban/rural lines nor at the two-digit ZIP code level—in either price levels or price-cycle patterns.⁶³ However, in 2023, 2025, and 2026, the Federal Cartel Office identified significant regional price differences, particularly when focusing on analyses based on two-digit ZIP codes.⁶⁴ According to our analyses covering the period from early 2026 through February 23, 2026, prices for all three fuel types are lower in urban areas than in rural areas (Figure 11); a similar urban–rural gap already appeared in 2022, when pass-through of the temporary fuel-tax cut was systematically lower in rural than in urban areas.⁶⁵

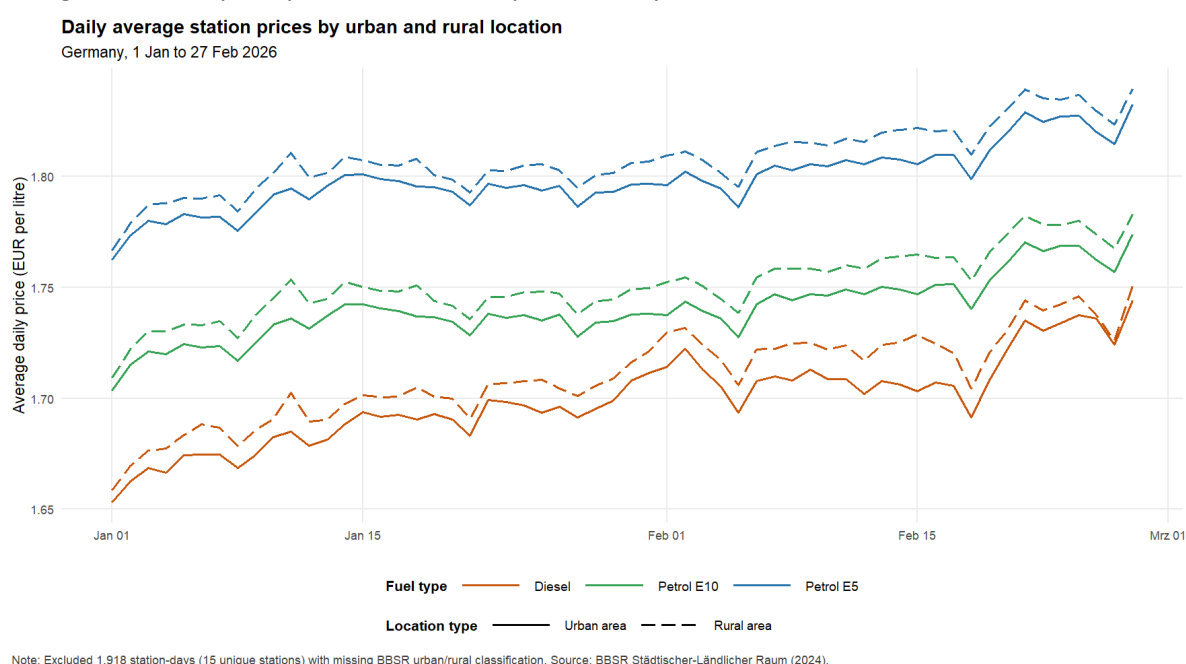


Figure 11: Price Differences Between Urban and Rural Areas⁶⁶

⁶³ Bundestag, Report on the Results of the Work of the Market Transparency Unit for Fuels and the Lessons Learned Therefrom (2018), Parliamentary Document 19/3693, August 3, 2018, pp. 17ff.

⁶⁴ Federal Cartel Office, Fuel News, Quarterly Report of the MTS-K, November 9, 2023, October 7, 2025, and March 27, 2026, https://www.bundeskartellamt.de/SharedDocs/Meldung/DE/Pressemitteilungen/2024/05_07_2024_Quartalsbericht.html. Retrieved June 5, 2026.

⁶⁵ Kahl, M. P. (2024). Was the German fuel discount passed on to consumers? Energy Economics, 138, 107843. <https://doi.org/10.1016/j.eneco.2024.107843>.

⁶⁶ The classification of gas stations as urban or rural is based on a spatial comparison of the MTS-K location coordinates with the municipal boundaries from the BKG dataset VG25 (as of Dec. 31, downloaded June 9, 2026, <https://gdz.bkg.bund.de/index.php/default/digitale-geodaten/verwaltungsgebiete/verwaltungsgebiete-1-25-000-stand-31-12-vg25.html>) and a subsequent linkage to the BBSR classification “Urban-Rural Areas (2024)” via the Official Municipal Code (reference table, territorial status as of Dec. 31, 2024, downloaded May 7, 2026, <https://www.bbsr.bund.de/BBSR/DE/forschung/raumbearbeitung/Raumabgrenzungen/downloads/download-referenzen.html>). Daily average prices by area type based on MTS-K price data (Jan. 1–Feb. 28, 2026; retrieved May 1, 2026, from tankerkoenig.de). Fifteen gas stations without a municipal or BBSR classification were excluded.

G Interim Conclusion

Given the expectation that the MTS-K would intensify competition in the German fuel market—and that this would primarily lead to lower retail prices—it is worth taking a closer look at those prices. For both E5 gasoline and diesel, prices fell slightly following the introduction of the transparency agency, or, at the very least, remained at relatively low levels through 2021. It was not until 2022 that a sharp increase occurred, which was not fully offset by subsequent price declines. This trend appears largely similar when considering retail prices excluding taxes. An important factor influencing fuel price trends is the price of crude oil. Graphically, there is a broad parallelism between crude oil prices and diesel/E5; only in the immediate period leading up to the start of the Iran War did fuel prices fall less than the decline in crude oil prices would have suggested. Descriptively, Germany is a low-price country compared to its European neighbors—at least until the start of the Ukraine War—when considering fuel prices excluding taxes. Early difference-in-differences evaluations of the MTS-K, using aggregated prices through 2015, are mixed or insignificant; later studies with longer samples find modest average price reductions, but they do not cover the crisis years or the end of the transparency-only regime. Strongly correlated in time and thus presumably causally related, the introduction of the MTS-K has significantly increased the number of price cycles per day; the trend toward more frequent cycles appears to continue. Furthermore, price differences within a single day at a given gas station (gas station spread) as well as between gas stations within a regional market (market spread) have increased, although this trend may have slowed recently. Regional price differences appear to persist, at least in the most recent period.

VII Summary and Conclusions

The introduction of the MTS-K and the dissemination of real-time gas station prices via consumer information services since December 2013 were primarily intended to improve price transparency for consumers; greater transparency was expected to strengthen competition in the fuel market. The Transparency Office and the obligation to disclose gas station prices were implemented under the Act Against Restraints of Competition. In this respect, a price disclosure requirement was established for nearly all gas stations, regardless of market power, etc. This represents a little-noticed but remarkable expansion of the competition policy toolkit! Closer to standard competition law were—and still are—the “secondary purposes” of the MTS-K: improving the data basis for detecting collusion, strengthening relevant merger control proceedings, expanding sector inquiries, serving statistical purposes, and supporting the Monopoly Commission. During the development phase of the Transparency Office, gas stations—or the oil companies behind them—were required to provide relevant volume data at least weekly; as the initiative progressed, this disclosure requirement was eliminated.

With the adoption of the Austrian Price Rule on April 1, 2026, the framework governing the Transparency Office will undergo a decisive change in one key area: Price increases will be permitted only once a day, at 12:00 noon. The pronounced price cycles of recent years, which have become increasingly common, will no longer be permitted. It will no longer be allowed to raise prices several times a day, then lower them, and then raise them again. In this respect, the competition policy regime in effect since 2013 has been abolished. The comparison with Austria is instructive. Austria combined an increase restriction (prices may be raised only once a day, at noon) with later

transparency measures; the German 2013–2026 regime was transparency without an increase restriction. From 1 April 2026, Germany adopts the Austrian increase rule while retaining the MTS-K feed, so the two instruments can no longer be observed in isolation.

From a scientific perspective, it therefore makes sense to analyze the effects of this twelve-year period. In its 2018 evaluation report, the Federal Cartel Office presented an initial impact analysis; this needs to be (critically) reviewed and updated through its (provisional) end in early 2026.

Greater competition in the fuel market cannot be expected solely at the gas station level; it is also necessary to consider the upstream stages of the value chain: exploration/import, refineries, storage, wholesale, and transportation. The most recent sector inquiry into refineries and wholesale—for which the Federal Cartel Office submitted its final report in February 2025—makes it clear, first, that in both stages of the value chain, a number of structural factors increase the likelihood of collusion, even if only in the form of parallel behavior; and second, that the widely used price notification systems reinforce the tendency toward collusion. In this respect, it would not be—and is not—surprising that the Market Transparency Unit has had—or could have had—only limited pro-competitive effects.

From an empirical perspective, following the introduction of the MTS-K, first, prices for E5 gasoline and diesel fell slightly or remained relatively low; in 2022, there were sharp price increases that were not fully reversed later on. Second, retail prices closely track crude oil prices, though this correlation has become less clear in recent times. Third, until the start of the war in Ukraine, Germany was a low-price country in terms of net fuel prices—at least compared to its neighboring countries. Fourth, the significantly increased number of daily price cycles is striking and is strongly suspected to be a consequence of the Transparency Agency; fifth, the difference between the daily high and low prices has risen sharply. Sixth, at least in recent times, prices in rural areas have been higher than in urban areas. And seventh, the price differences between individual weekdays, between Sundays/holidays and weekdays, and between non-holiday and holiday days have disappeared. Early difference-in-differences evaluations of the MTS-K itself are mixed and stop in 2015; later work finds modest average price reductions of a few cents per liter, with effects that depend on local market structure. Those estimates do not extend through the 2022 shock or through early 2026.

Certainly, causal-analytic econometric studies would also be helpful in this field. But the lack of volume data alone raises considerable doubts about their feasibility.

From the perspectives of competition economics and competition law, the Market Transparency Agency for Fuels is a fascinating field. More data for the antitrust authority, academia, statistics, etc., is better than less. There is also no evidence that increased market transparency has harmed competition. The daily price cycles alone—which are becoming increasingly significant—are evidence of intense competition at the gas station. Whether this competition actually drives prices to the lowest possible levels cannot be answered empirically. They are not, by themselves, evidence that prices were driven to the lowest possible level. Algorithmic pricing can generate more cycles while raising margins in oligopolistic local markets, and the refinery and wholesale inquiry documents conditions that remain conducive to collusion upstream. Spectacular price movements at the pump can therefore coincide with limited competitive pressure where it would actually constrain margins. Cannons may thunder beautifully in a stone quarry, but stone quarries are usually not battlefields.

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