Hamm Institute for American Energy
OKLAHOMA STATE UNIVERSITY

Gasoline Inflation Lagging CPI Since the Shale Oil Revolution

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Hamm Institute for American Energy

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Abstract

Since the emergence of large-scale U.S. shale oil production in the late 2000s, gasoline prices have behaved differently from the broader cost of living faced by U.S. consumers. Using Bureau of Labor Statistics (BLS) data compiled and analyzed by Veriten, this paper examines gasoline price inflation relative to overall Consumer Price Index (CPI) and other major goods and services categories across multiple time horizons. The evidence shows that since 2010, gasoline prices have significantly lagged overall CPI, making energy—particularly gasoline—an important moderating force on household inflation during the shale era. However, longer-term historical comparisons demonstrate that gasoline has also experienced periods of extreme inflation associated with major oil shocks, underscoring the importance of starting point and structural context when interpreting inflation trends.

1. Introduction

Energy prices, and gasoline prices in particular, occupy a unique position in inflation discussions. Gasoline is highly visible to consumers, volatile in the short term, and tightly linked to global commodity cycles and geopolitical events. As a result, public perception of inflation is often disproportionately influenced by movements at the gas pump.

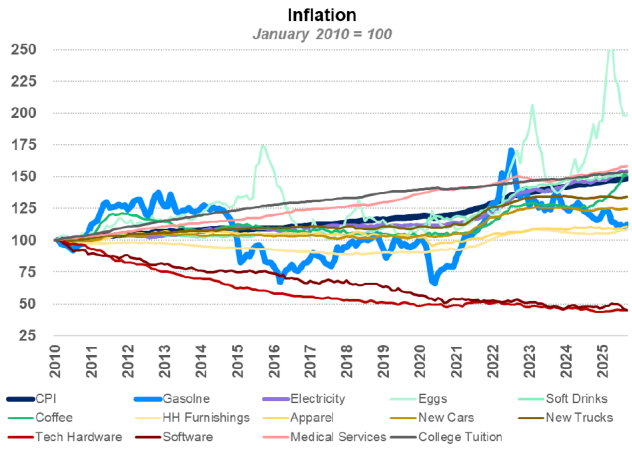
This paper evaluates whether gasoline prices have kept pace with, exceeded, or lagged the overall cost of living over time. Drawing exclusively on data and visual exhibits from Veriten's December 2025 analysis, the focus is on three distinct periods: (1) the shale oil era beginning around 2010, (2) the medium-run period shaped by globalization and China/BRICs expansion since the 1990s, and (3) the very long run beginning with the 1970s oil shocks. Together, these perspectives provide a structured view of gasoline's role in U.S. inflation dynamics.

2. Gasoline Inflation in the Shale Oil Era (2010–2025)

The most striking result in the Veriten analysis is the clear divergence between gasoline prices and overall CPI since the start of the U.S. shale oil revolution. All price series in the analysis are indexed to 100 in January 2010, allowing for direct comparison across categories.

As shown in Figure 1, overall CPI rose to an index value of 149 by September 2025, implying cumulative inflation of roughly 49% over the period. In contrast, gasoline reached an index value of only 119, corresponding to a cumulative increase of about 19%. Energy

commodities more broadly increased by roughly 20%, while electricity prices rose to an index of 152—slightly above CPI.



	2010=100
Motor vehicle insurance	245
Tobacco and smoking products	213
Eggs	189
Household operations	173
Meats, poultry, fish, and eggs	173
Shelter	168
Medical care services	159
College tuition and fees	154
Carbonated drinks	153
ELECTRICITY	**152**
Coffee	152
ALL ITEMS (OVERALL CPI)	**149**
Food at home	148
Beer, ale, and other malt beverages at home	140
Dairy and related products	139
Medical care commodities	135
New trucks	134
Fruits and vegetables	132
New cars	124
ENERGY COMMODITIES	**120**
GASOLINE	**119**
COMMODITIES LESS FOOD AND ENERGY COMMODITIES	116
Distilled spirits at home	114
Personal care products	112
Apparel	110
Wine at home	105
Computers, peripherals, and smart home assistants	45
Computer software and accessories	45

Figure 1: Inflation of gasoline vs select goods and services. Source: BLS, Veriten.

This divergence reflects a structural shift in U.S. energy markets. Expanded domestic oil production increased supply resilience, reduced exposure to global supply shocks, and constrained long-run gasoline price growth relative to other consumer goods and services. While gasoline prices still spiked during periods such as 2021–2022, these increases did not translate into sustained inflation comparable to housing, medical services, or insurance.

3. Comparison Across Goods and Services

The shale-era comparison also highlights how gasoline inflation ranks relative to other household expenditures. Categories such as motor vehicle insurance (245), tobacco products (213), eggs (189), shelter (168), and medical care services (159) all substantially outpaced gasoline inflation since 2010.

By contrast, gasoline increased more slowly than: - Overall CPI (149) - Electricity (152) - Food at home (148) - New vehicles and trucks (124–134).

At the lower end of the inflation spectrum, technology-related goods, such as computers and software, experienced dramatic deflation, with index values near 45 by 2025.

End date Sep-25 unless noted	1970=100	1980=100	1990=100	2000=100	2010=100	
CPI (ALL ITEMS)	**856**	**416**	**254**	**192**	**149**	
ENERGY COMMODITIES	**1,147**	**332**	**302**	**249**	**118**	
GASOLINE	**1,022**	**314**	**304**	**243**	**117**	
Gasoline less CPI	***166***	***(102)***	***49***	***52***	***(33)***	
ELECTRICITY	**938**	**423**	**253**	**231**	**154**	
FOOD/BEVERAGE COMMODITIES						
Food at home	797	372	243	191	147	
Meats, poultry, fish, and eggs	767	384	276	231	172	
Eggs	475	405	262	276	189	
Dairy and related products	617	311	216	169	137	*not seasonally adjusted*
Fruits and vegetables	955	461	240	177	130	
Carbonated drinks		293	213	194	153	
Coffee					151	
Beer, ale, and other malt beverages at home	578	346	232	181	140	*not seasonally adjusted*
Distilled spirits at home		246	175	135	114	*not seasonally adjusted*
Wine at home			160	120	106	
COMMODITIES LESS FOOD AND ENERGY COMMODITIES	**366**	**209**	**137**	**116**	**116**	
GOODS & SERVICES						
Household furnishings and supplies						
Apparel	228	151	111	102	111	
New cars	333	204	143	124	125	
New trucks			159	126	134	
Motor vehicle insurance			519	351	244	
Medical care commodities	911	578	265	177	134	*not seasonally adjusted*
Medical care services	2,056	898	411	246	158	
Computers, peripherals, and smart home assistants				7	45	*not seasonally adjusted*
Computer software and accessories				25	45	*not seasonally adjusted*
Tobacco and smoking products	3,996	2,390	959	445	212	*not seasonally adjusted*
Personal care products	433	240	145	119	112	*not seasonally adjusted*
Shelter	1,231	551	307	220	169	
Household operations				242	174	*end date April 2023*
College tuition and fees		1,423	569	295	153	
METALS						
Gold	6,645	390	623	856	195	
Silver	1,600	135	585	570	140	
Copper	511	343	343	504	121	

Figure 2: Inflation indices for major categories since 2010. Source: BLS, Veriten.

This comparison underscores a key conclusion from the Veriten analysis: since the shale revolution, gasoline has acted as a relative hedge against inflation rather than a driver of it.

4. Medium-Run Perspective: Globalization and the 1990–2000 Base Years

Looking beyond the shale era, the relationship between gasoline and inflation becomes more nuanced. When prices are indexed to 1990 or 2000 (Figure 3), gasoline and energy commodities show stronger inflation relative to CPI.

Between 1990 and 2025, gasoline rose to an index of approximately 304, exceeding CPI (254) over the same period. This era coincided with rapid industrialization in China and other BRIC economies, which increased global demand for energy and raw materials while simultaneously exerting deflationary pressure on manufactured goods.

	1990=100
Tobacco and smoking products	959
College tuition and fees	569
Motor vehicle insurance	519
Medical care services	411
Shelter	307
GASOLINE	**304**
ENERGY COMMODITIES	**302**
Meats, poultry, fish, and eggs	276
Medical care commodities	265
Eggs	262
ALL ITEMS (OVERALL CPI)	**254**
ELECTRICITY	**253**
Food at home	243
Fruits and vegetables	240
Beer, ale, and other malt beverages at home	232
Dairy and related products	216
Carbonated drinks	213
Distilled spirits at home	175
Wine at home	160
New trucks	159
Personal care products	145
New cars	143
COMMODITIES LESS FOOD AND ENERGY COMMODITIES	137
Apparel	111

	2000=100
Tobacco and smoking products	445
Motor vehicle insurance	351
College tuition and fees	295
Eggs	276
ENERGY COMMODITIES	**249**
Medical care services	246
GASOLINE	**243**
Household operations	242
ELECTRICITY	**231**
Meats, poultry, fish, and eggs	231
Shelter	220
Carbonated drinks	194
ALL ITEMS (OVERALL CPI)	**192**
Food at home	191
Beer, ale, and other malt beverages at home	181
Fruits and vegetables	177
Medical care commodities	177
Dairy and related products	169
Distilled spirits at home	135
New trucks	126
New cars	124
Wine at home	120
Personal care products	119
COMMODITIES LESS FOOD AND ENERGY COMMODITIES	116
Apparel	102
Computer software and accessories	25
Computers, peripherals, and smart home assistants	7

Figure 3:Gasoline and energy commodities and other goods vs CPI. Source: BLS, Veriten.

This period illustrates that gasoline inflation cannot be evaluated independently of global economic structure. Demand-driven commodity cycles can push gasoline above CPI for extended periods, even if long-run averages appear more balanced.

5. Long-Run Perspective: The 1970s Oil Shocks

The longest-run comparison, indexed to 1970 and 1980 (Figure 4), captures the profound impact of the Arab Oil Embargo and subsequent oil supercycles. From a 1970 base, gasoline increased more than tenfold (index ~1,022), outpacing overall CPI (856) but remaining below certain service categories such as medical care.

	1970=100
Tobacco and smoking products	3,996
Medical care services	2,056
Shelter	1,231
ENERGY COMMODITIES	**1,147**
GASOLINE	**1,022**
Fruits and vegetables	955
ELECTRICITY	**938**
Medical care commodities	911
ALL ITEMS (OVERALL CPI)	**856**
Food at home	797
Meats, poultry, fish, and eggs	767
Dairy and related products	617
Beer, ale, and other malt beverages at home	578
Eggs	475
Personal care products	433
COMMODITIES LESS FOOD AND ENERGY COMMODITIES	366
New cars	333
Apparel	228

	1980=100
Tobacco and smoking products	2,390
College tuition and fees	1,423
Medical care services	898
Medical care commodities	578
Shelter	551
Fruits and vegetables	461
ELECTRICITY	**423**
ALL ITEMS (OVERALL CPI)	**416**
Eggs	405
Meats, poultry, fish, and eggs	384
Food at home	372
Beer, ale, and other malt beverages at home	346
ENERGY COMMODITIES	**332**
GASOLINE	**314**
Dairy and related products	311
Carbonated drinks	293
Distilled spirits at home	246
Personal care products	240
COMMODITIES LESS FOOD AND ENERGY COMMODITIES	209
New cars	204
Apparel	151

Figure 4: CPI of commodities post oil embargo. Source: BLS, Veriten.

These results reinforce a central theme of the analysis: gasoline inflation is highly sensitive to the starting point. Periods that begin before major oil shocks tend to show gasoline as highly inflationary, while periods beginning after structural supply expansions—such as shale—show the opposite.

6. Implications and Conclusions

Using the evidence presented in the Veriten December 2025 analysis, several conclusions emerge:

1. **Since 2010, gasoline inflation has materially lagged overall CPI**, reflecting the deflationary influence of the U.S. shale oil revolution.
2. **Electricity prices behave differently from gasoline**, generally tracking or exceeding CPI even during the shale era.
3. **Over longer horizons, gasoline can both exceed and lag CPI**, depending on global demand conditions and the presence of oil supercycles.
4. **Policy and market structure matter**: domestic supply expansion significantly alters inflation outcomes for energy-intensive goods.

Overall, gasoline should not be viewed as a consistently inflationary or deflationary good. Instead, it is best understood as a cyclical commodity whose inflationary role depends critically on global demand, supply structure, and the historical starting point of analysis.

References

Veriten. *Gasoline Inflation Lagging CPI Since the Shale Oil Revolution*. December 2025. Source data: U.S. Bureau of Labor Statistics.

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