

## Executive Summary

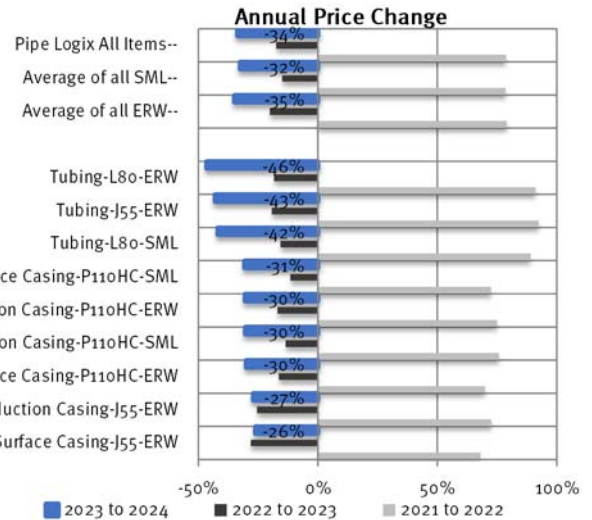
OCTG prices have increased 8% from the mid-2024 low. Reduced supply and strong sentiment suggest continued but minimal pricing gains across the remainder of the year. The new White House Administration has opened the door for increased drilling activity and thus higher OCTG demand, but expected lawsuits by environmentalists will delay the industry response.

The down cycle in OCTG prices ended with a total decline of 54% over 20 consecutive months. The annual average for 2024 was \$1,863/ton, which was a decrease of 34% from the previous year. Premium pricing for seamless over ERW averaged 18% in 2024, which is above the long-term average of 16%. Alloy ERW products realized a 17% price premium over carbon products at the end of 2024, down from a peak of 25% in 2023.

Production casing prices trended lower through July 2024 then increased slightly by year's end. Prices for 5.5" 23# production casing gyrated during the previous 5 years, up 170% during 2020-2022, then down 50% across 2023 through August 2024, and back up 5% by December. While some 5.5" 20# items were redefined, overlapping data shows prices hit a low in mid-2024 and realized small gains by year's end. Price for ERW 5.5" 20# with a semi-premium modified buttress connection gained 5% from August 2024 to December. Seamless 20# SPMB gained 7%.

Tubing prices were 43% lower in 2024 compared to the previous year though the monthly trends inflected upward by Q4. The December price for 2 3/8" carbon was up 10% from the mid-2024 low and the price for 2 7/8" L80 seamless price was up 19%. The average price premium for seamless tubing over ERW increased from 8% in 2023 to 17% in 2024.

Surface casing prices have a similar story with prices up during 2020 through 2022, down through mid-2024 and slight gains by year's end. 7" 29# ERW and SML are currently down 48% and 47%, respectively, from the 2022 peak price. Larger diameter ERW surface casings, such as 9 5/8" and 13 3/8", had price decreases of 50% from the 2022 peak price, including the 3%-5% gains realized during the 2<sup>nd</sup> half of 2024.



Scrap prices, while down 19% compared to a year ago, have been mostly steady during the trailing 8 months. HRC prices have been just below \$700/ton and steel billet prices steady near \$383/ton. Futures markets suggest slight gains in HRC price in 2025 but limited change for near-term scrap pricing.

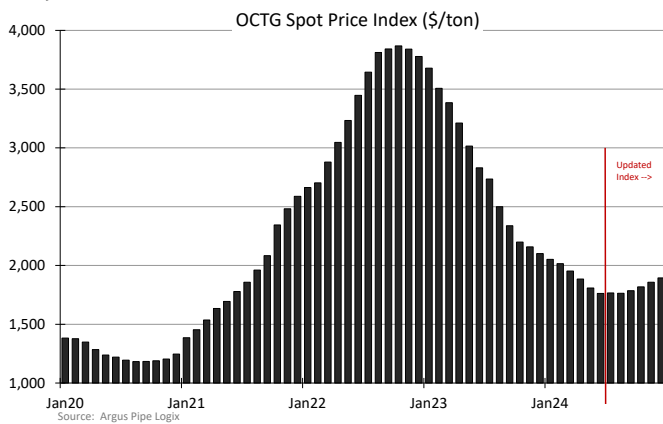
Domestic supply of OCTG totaled 3.0 million tons in 2024, unchanged from the previous year. Seamless volumes increased 4% to 2.1 million tons while ERW volumes decreased 9%. Over 90% of all domestic tons were alloy grade versus carbon. Preliminary import volumes totaled 1.7 million tons in 2024, down 32% from the previous year with large declines in supply from Japan, Italy, Germany, and Philippines. South Korea remains the largest supplying nation at 490,000 tons in 2024, 29% of the total. Combining domestic shipments with import volumes and netting out export volumes, provides a total OCTG market of around 4.3 million tons in 2024, down 16% from the previous year. The current supply ratio is 576 tons/rig during a period of supported pricing, thus, a signal that current supply levels are mostly balanced by demand.

Drilling activity has declined slightly in 2024, however, rig efficiency has increased. The number of wells drilled per active rig has increased 15% since 2020 and footage drilled has increased 8%, meaning more OCTG demand per active rig compared to 5 years ago. Most of the increased efficiency was realized by 2022 and has since slowed to 2% per year.

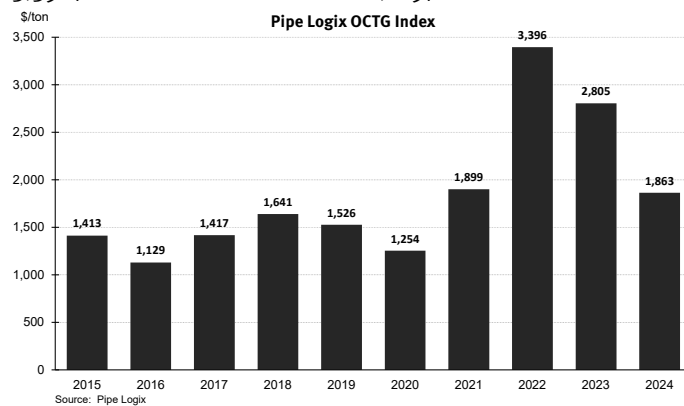
## OCTG Price Trends

Prices for OCTG declined through mid-2024, continuing the trend that began in 2023. The Argus Pipe Logix OCTG Index hit a low of \$1,761/ton in June 2024, matching the price index realized 3 years prior. The completed downcycle was a cumulative decline of 54% from October 2022 to June 2024.

Across the 2<sup>nd</sup> half of 2024, prices increased 8% to end the year at \$1,864/ton. Also included in this trend is a change in index composition.

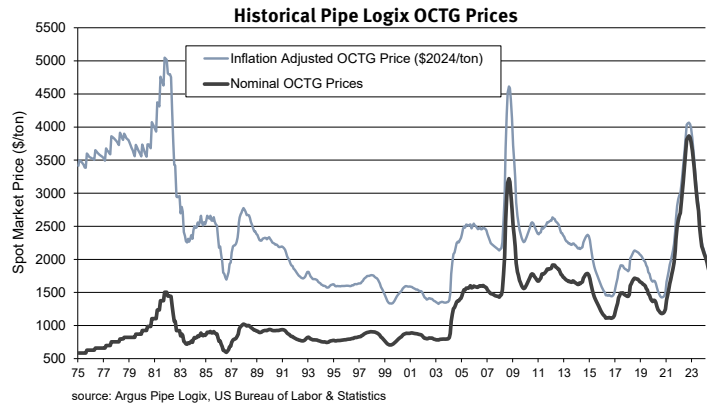


The annual OCTG Index was \$1,863/ton in 2024, which is down 35% from the 2023 average. The 2024 average price is within 2% of the 10-year average, which includes a nominal peak price of \$3,396/ton in 2022 and a low of \$1,129/ton in 2016.

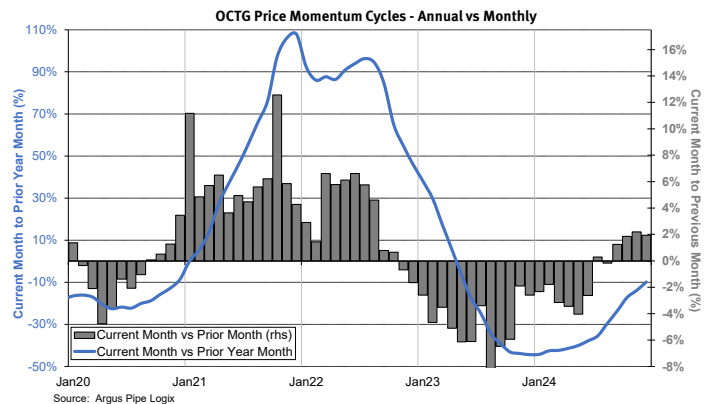


Expanding the analysis period to 50 years, and adjusting for inflation, involves comparing the REAL or inflation adjusted (using CPI) price instead of the nominal price or price of the day. The inflation adjusted OCTG price has averaged \$2,376/ton since 1975. When REAL prices are compared in terms of 2024 dollars,

the peak nominal price in 2022 ranks below the REAL price in October 1981 of \$1,504/ton in nominal dollars but \$5,048/ton in today's inflated dollars. The second highest inflation adjusted price was in September 2008 when OCTG was at a nominal price of \$3,220/ton, which equals \$4,614/ton in 2024 dollars. The lowest inflation adjusted price was realized in March 2003 at \$779/ton nominally or \$1,326/ton in 2024 real dollars.



Annual momentum, current month versus same month the previous year, hit a low of -44% in December then inflected and began to increase. Positive momentum continued through 2024, reaching a -10% by year's end.



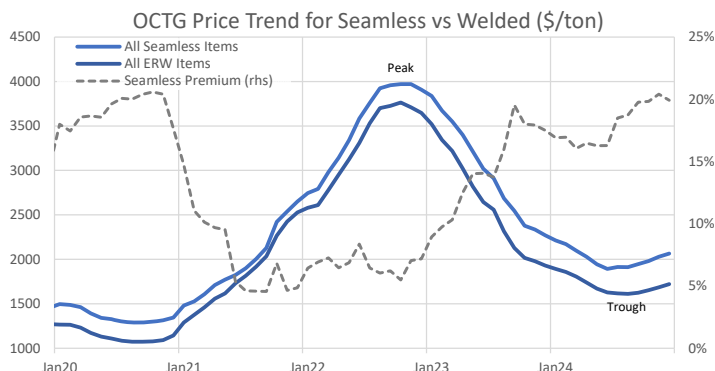
Monthly analysis shows price decreases in 2024 through June averaged of -2.9% per month. Monthly change stuttered in July and August then remained positive from September through December, averaging a gain of 1.8%/month. In 2024, the average monthly price decrease was 4.7%. During the previous 5 years, the largest monthly loss was 8.6% in August 2023 and the largest monthly gain was 12.6% in October 2021.

### Seamless vs ERW

Two common manufacturing processes compete in the OCTG market; seamless and electric resistance welded or ERW. Each product prices a little differently in the market with a slight premium normally realized for seamless products (implying more operators prefer the lack of a welded seam over pipe ovality). Prices for both seamless and ERW were lower through mid-2024, then both increased for the remainder of the year.

The average price for all ERW items ended 2024 at \$1,722/ton, a decrease of 11% from a year ago but up 2% from the previous month. The annual average was \$1,710/ton, which is a 35% decrease from the previous year's average.

Seamless prices ended the year at \$2,065/ton, down 9% from a year ago but up 2% from the previous month. The annual average price for all seamless items was \$2,017/ton in 2024, down 32% from the previous year's average.



OCTG Price Trend for Seamless vs Welded (\$/ton)	All ERW Items	All Seamless Items
Current - Dec24	1,722	2,065
Previous month	1,686	2,030
Dec24 vs previous month	2%	2%
Previous year	1,932	2,270
Dec24 vs year ago	-11%	-9%
Cycle Peak	Oct22	Nov22
Cycle Peak	3,763	3,971
Dec24 vs Cycle Peak	-54%	-48%
Cycle Trough	Aug24	Jun24
Cycle Trough	1,612	1,893
Dec24 vs Cycle Trough	7%	9%

The price premium for seamless to welded items averaged \$307/ton or 18% in 2024, meaning seamless prices averaged

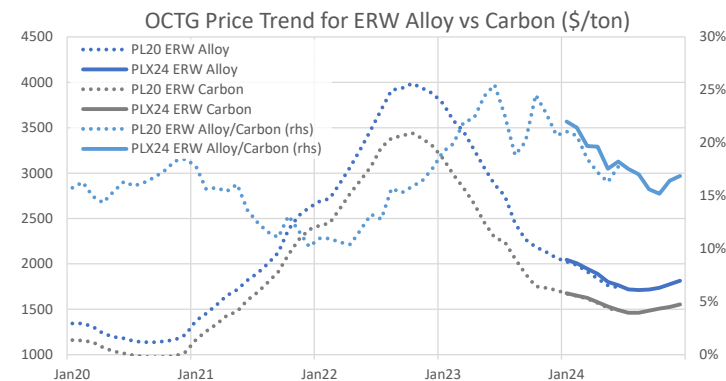
18% higher than ERW prices during the year. While both SML and ERW prices decreased in 2024, the decrease for ERW prices was steeper than the decrease for SML, resulting in an increase in the percentage price premium in 2024.

Since 1986, the price premium for seamless over ERW has averaged 16.2%. The premium was most consistent between 1994-2003. Dramatic moves in HRC prices in 2021-2023 caused the premium to dip then to surge. Most recently, the SML price premium was at its low of 5% in September 2021 then increased to a peak of 20% in September 2023. In 2024, the price premium eased to 16% in the first half of the year before returning to 20% by year's end. The December 2024 SML price premium was \$343/ton or 19.9%.

### ERW Alloy vs Carbon

Another price market segmentation exists between alloy and carbon products. Alloy products involve steel additives (nickel, chrome, moly, etc.) and additional processing (heat treating) to increase the minimum yield strength of the pipe. An overly simple description is that a carbon product has a yield of 55,000 psi or less while alloy products have a yield of more than 55,000 psi. ERW products tend to include both alloy and carbon compositions and thus offer a good comparison of the alloy price premium to carbon.

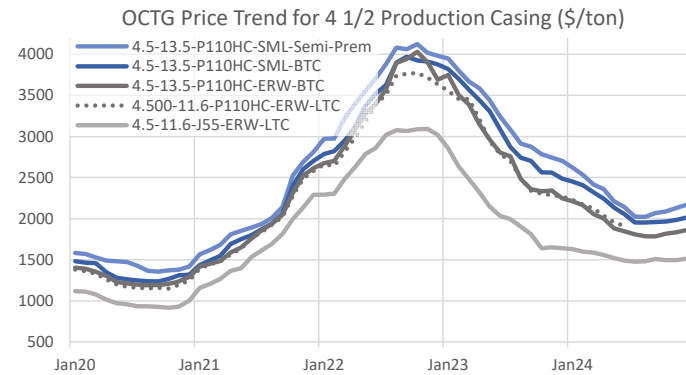
Comparing the prices of all ERW alloy products to all ERW carbon shows alloy prices increased faster than carbon across 2022 and decreased slower in 2023. This divergence in price trends caused the price premium for alloy to increase from 10% in 2022 to 25% by mid-2023. In 2024, alloy prices decreased faster than carbon, causing the alloy price premium to decrease to 15% by October. The December alloy price premium was 17%.



## Production Casing Prices

### 4.5” Production Casing

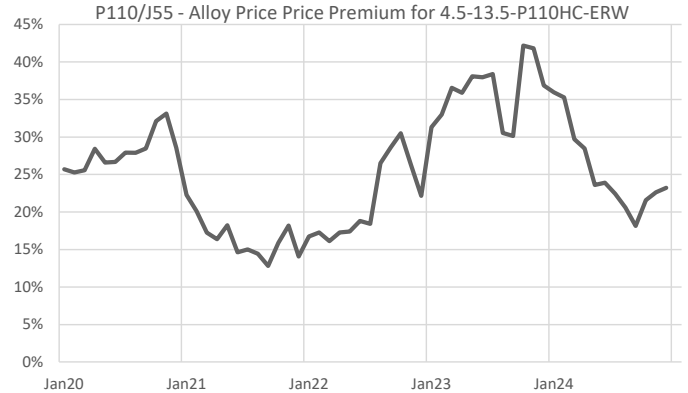
Generally, prices for 4.5” production casing peaked in 4Q 2022 then decreased through mid-2024. Specifically, carbon 4.5” 11.6# ERW was down 27% in 2024 compared to the previous year. The monthly trend shows a peak to trough decline of 51% with a peak in 2022 of \$3,090/ton and a trough in July 2024 of \$1,476/ton. Since July, it realized a 2% price increase across the remainder of 2024.



OCTG Price Trend for 4 1/2 Production Casing (\$/ton)	4.5-11.6-J55-ERW-LTC	4.5-13.5-P110HC-ERW-BTC	4.5-13.5-P110HC-SML-BTC	P110HC-SML-Semi-Prem
	Dec24	Dec24	Dec24	Dec24
Current	1,511	1,862	2,012	2,170
Previous month	1,495	1,833	1,985	2,130
Dec24 vs previous month	1%	2%	1%	2%
Previous year	1,641	2,246	2,486	2,701
Dec24 vs year ago	-8%	-17%	-19%	-20%
Cycle Peak	Nov22	Oct22	Sep22	Oct22
Cycle Peak	3,090	4,031	3,970	4,124
Dec24 vs Cycle Peak	-51%	-54%	-49%	-47%
Cycle Trough	Jul24	Sep24	Aug24	Aug24
Cycle Trough	1,476	1,783	1,952	2,023
Dec24 vs Cycle Trough	2%	4%	3%	7%

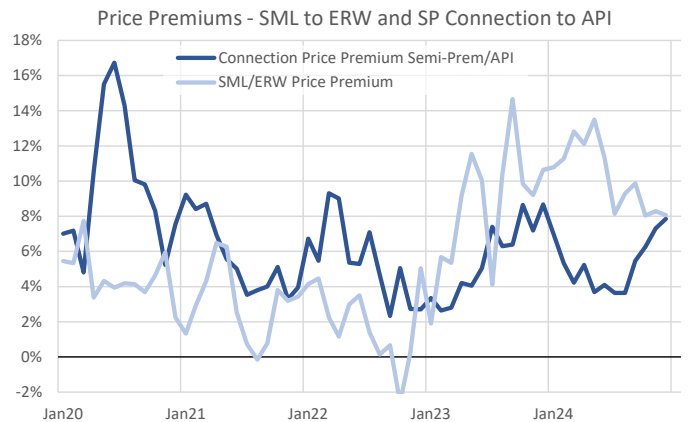
The average price for 4.5” 13.5# ERW P110 was \$1,921/ton in 2024, down 32% from the previous year. Seamless 4.5” 13.5# P110 price was down 31% in 2024 for a BTC connection or semi-premium connection.

Alloy products realized a price premium between 13% - 42% over the trailing 5 years. The price for 4.5” P110 13.5#/ft ERW production casing was 28% higher than J55 in 2020. In 2021, the price premium narrowed to 17% and in 2023 it widened to 36%. The monthly alloy price premium started 2024 at 36% then decreased to 23% by year’s end.



Two other price premiums are analyzed. The first is the price advantage for a semi-premium connection to the same product with an API (Buttress) connection. Here the price premium peaked at 17% in 2020 and hit a low of 3% in 2023. This connection held a 7% premium at the start of 2024, which decreased to 4% by mid-year and back up to 8% by year’s end.

The price premium for 4.5” SML over ERW was below 8% through 2023 then increased to 15% in September 2023. It has since drifted lower, ending 2024 at 8%.



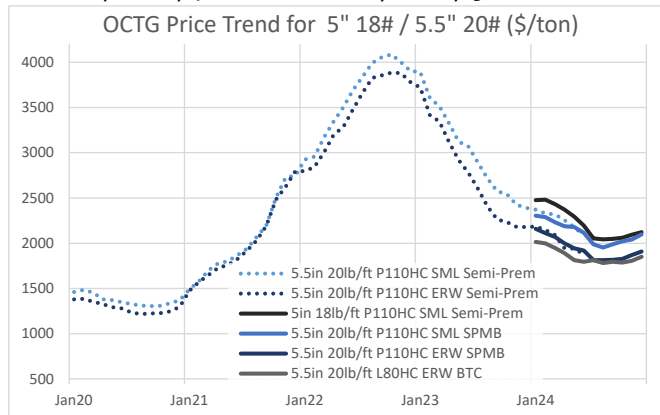
### 5.5” Production Casing

The price pattern is similar for 5½” as for 4½” production casing; namely, peak pricing in 4Q 2022 and price declines until mid-2024. Since August 2024, prices for 5.5” casing items have increased between 4% - 7%.

Revisions to the specific 5.5” 20# items tracked by Argus Pipe Logix provided a disruption in the 5-year analysis. However, there were 6 months of overlapping data to confirm the trends. 5.5” 20# SML “Semi-Premium” (dotted line in following chart) has been replaced with the more specifically defined 5.5” 20#

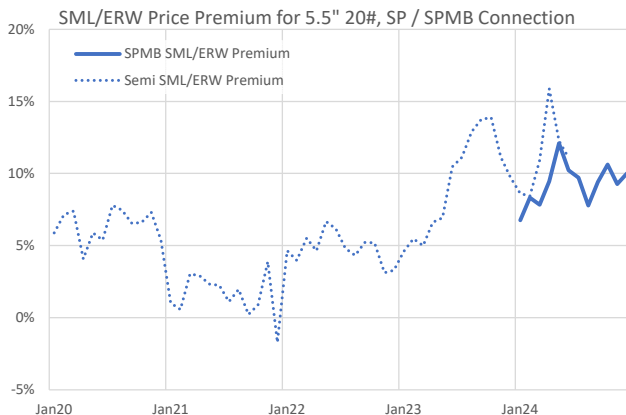
SML semi-premium modified buttress (SPMB) and semi-premium high torque (SPHTQ). Likewise, 5.5" ERW "Semi-Premium" has been re-defined as 5.5" ERW SPMB. Overlapping data for the period of January 2024 through June shows the same price trends for the newly defined items.

SPMB prices for both SML and ERW products decreased until August 2024 then increased for the remainder of the year with the SML price up 7% and the ERW price up 5% from the low.

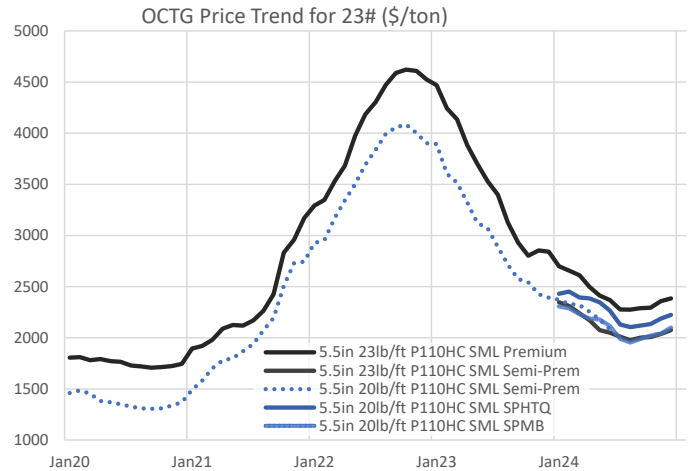


OCTG Price Trend for 5" 18# / 5.5" 20# (\$/ton)	OCTG 5.5in 20lb/ft P110HC ERW SPMB	OCTG 5.5in 20lb/ft P110HC SML SPMB	OCTG 5.5in 20lb/ft L80HC ERW BTC USD/st	OCTG 5in 18lb/ft P110HC SML Semi-Prem
	Dec24	Dec24	Dec24	Dec24
Current	1908	2099	1851	2121
Previous month	1869	2042	1806	2093
Dec24 vs previous month	2%	3%	2%	1%
Dec24 vs Cycle Trough	5%	7%	4%	4%
Cycle Trough	Aug24	Aug24	Aug24	Aug24
Cycle Trough	1812	1953	1781	2043

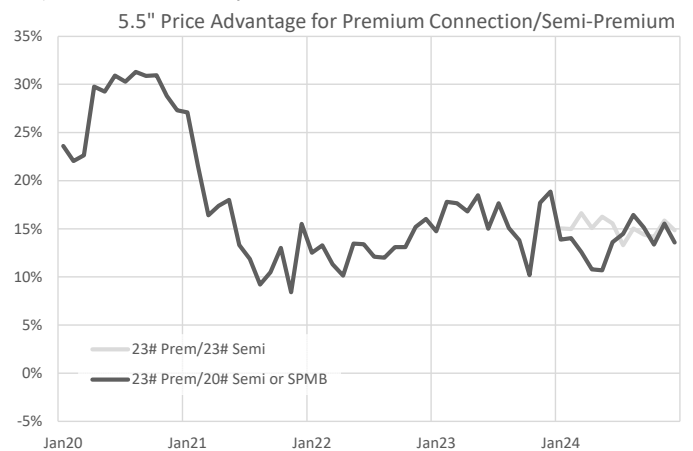
The price premium for SML over ERW averaged just 2% in 2021 then increased across 2022 to a peak of 14% in 2023. The average SML price premium in 2023 was 9% compared to 5% the previous year. The newly termed semi-premium modified buttress (SPMB) connection in 2024 shows a similar SML price premium over ERW, averaging 9%.



Seamless 5.5" 20# with a semi-premium high torque connection (SPHTQ) hit a low of \$2,104/ton in August 2024 then gained 6% by year's end. Heavier wall 5.5", such as 23#, with a premium connection had pricing behavior much like the other 5.5". It started from a low in September 2020 of \$1,708/ton then increased 170% to hit a peak price of \$4,621 in 4Q 2022. The price decreased 51% across 2023 and by August 2024 it had reached a low of \$2,274/ton. By December 2024, the price had bounced back up 5% from the low.

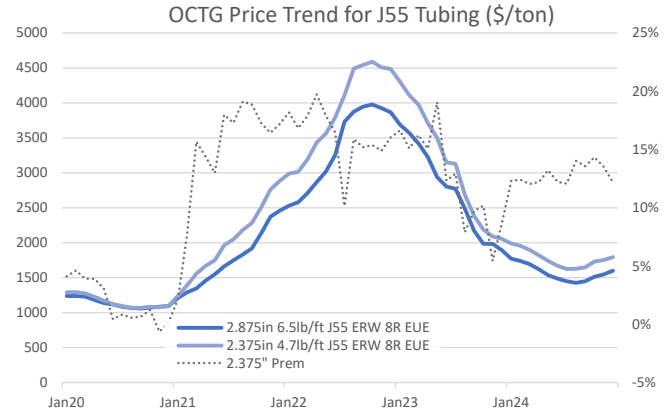
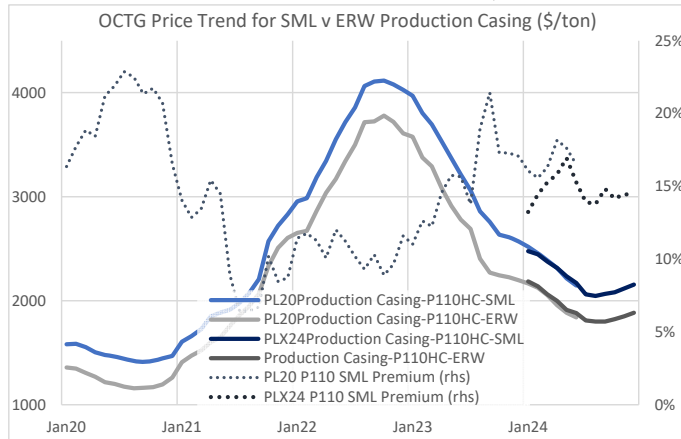


The price premium for stronger connections has remained near 15% since late 2022. Comparing 5.5" 23# with a premium connection to 20# with a semi-premium or SPMB connection shows a 30% price advantage in 2020, which decreased to a 10% advantage in 2021. It partially rebounded to a 15% premium by November 2022. The ratio of 23# premium connection to 23# semi-premium, which was added in January 2024, shows a similar premium for the stronger connection.



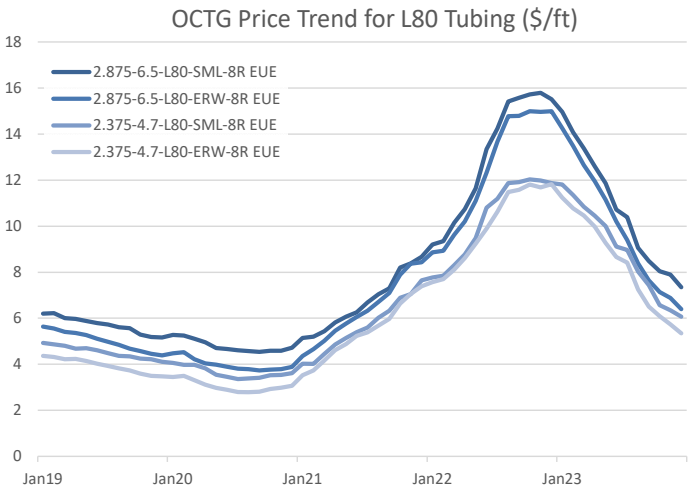
### All Production Casing

Combining 4.5”, 5” and 5.5” production casing items by seamless or ERW shows the general trend for the price premium realized for seamless over ERW production casing. In 2023, the decrease in ERW prices was sharper than for seamless prices, causing the seamless premium to increase to a peak of 20% before drifting back to 17% at year’s end. In 2024, the SML price premium was between 16%-18% in 1H and the premium using the added items to the index was between 14%-17%.



### Alloy L8o Tubing

Pricing for L8o grade, 2.375” production tubing averaged \$4.43/ft in 2024 for ERW and \$5.17/ft for SML. That is a decline of 47% for ERW and 42% for SML from the prior year average. Monthly \$/ft prices peaked in the 4<sup>th</sup> quarter 2022 and ERW prices have declined 60% by December 2024. Seamless L8o tubing prices are down 55% for 2.375” and down 59% for 2.875” from their respective 2022 peaks.



### Tubing Prices

#### Carbon J55 Tubing

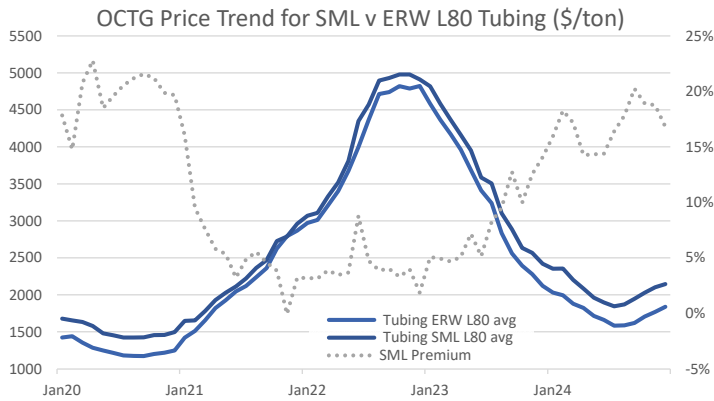
Annual average prices for all ERW carbon tubing decreased by 43% from the previous year for 2.375” and 2.875” diameters. Monthly trends show carbon tubing prices found support in mid-2024 with J55 2.375” hitting a low of \$3.82/ft (\$1,635/ton) and J55 2.875” bottoming out at \$4.64/ft (\$1,450/ton). By year’s end, prices had increased more than 10% for both.

	2.375in 4.7lb/ft J55 ERW 8R EUE	2.875in 6.5lb/ft J55 ERW 8R EUE
OCTG Price Trend for J55		
Cycle Peak	Oct22	Nov22
Cycle Peak (\$/ft)	10.79	12.75
Cycle Trough	Jul24	Aug24
Cycle Trough (\$/ft)	3.82	4.64

The price differential between 2.875” production tubing and 2.375” increased on a dollars per ton basis. In 2020, the larger diameter tubing realized an average price of \$1,133/ton while the smaller diameter tubing averaged \$1,156/ton, a 2% premium (on \$/ton basis) to 2.875”. In 2021, the differential increased to a peak of 20% before settling back to 5% in November 2023. In 2024, smaller diameter J55 tubing averaged \$1,771/ton while 2.875” averaged \$1,570, a \$/ton price premium for 2.375” of 13%.

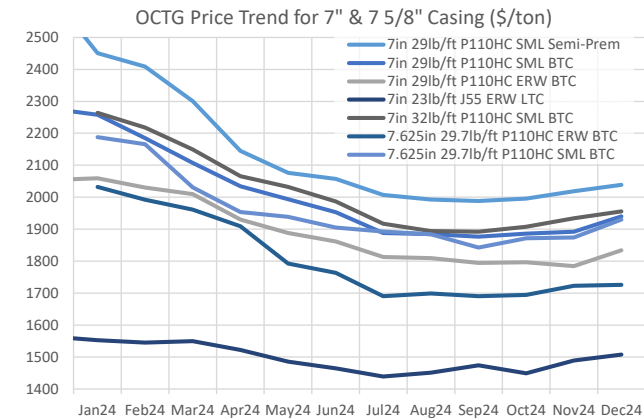
	2.375in 4.7lb/ft L8o SML 8R EUE	2.375in 4.7lb/ft L8o ERW 8R EUE	2.875in 6.5lb/ft L8o SML 8R EUE	2.875in 6.5lb/ft L8o ERW 8R EUE
OCTG Price Trend for L8o				
Cycle Peak	Oct22	Nov22	Nov22	Oct22
Cycle Peak	12.04	11.68	15.79	15.00
Cycle Trough	Jul24	Jul24	Jul24	Jul24
Cycle Trough	4.71	3.98	5.49	4.80
OCTG Price Trend for L8o Tubing (\$/ft)				
Dec24 vs previous month	2%	3%	2%	4%
Dec24 vs year ago	-12%	-15%	-11%	-12%
Dec24 vs Cycle Peak	-55%	-61%	-59%	-62%
Dec24 vs Cycle Trough	14%	15%	19%	17%

Averaging L80 tubing prices on a **\$/ton** basis shows the premium for SML items averaged 17% in 2024, up from 8% the previous year. The monthly trend shows the premium, which averaged 20% in 2020, dipped below 5% in 2022, then increased across 2023, from 5% to 14%. In January 2024, the premium was 16% and it ended the year at 17%.

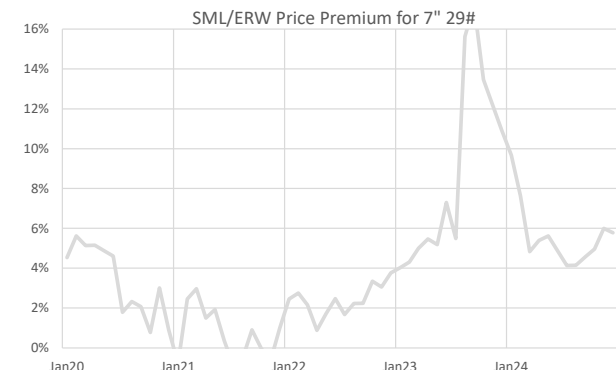


OCTG Price Trend for 7" Casing (\$/ton)	7in 29lb/ft P110HC SML Semi-Prem	7in 29lb/ft P110HC SML BTC	7in 29lb/ft P110HC ERW BTC	7in 23lb/ft J55 ERW LTC	7in 32lb/ft P110HC SML BTC
	Dec24	Dec24	Dec24	Dec24	Dec24
Current	2039	1940	1834	1508	1956
Previous month	2019	1892	1785	1489	1934
Dec24 vs previous month	1%	3%	3%	1%	1%
Previous year	2638	2278	2054	1564	
Dec24 vs year ago	-23%	-15%	-11%	-4%	
Cycle Peak	Sep22	Nov22	Nov22	Nov22	
Cycle Peak	3891	3640	3532	3073	
Dec24 vs Cycle Peak	-48%	-47%	-48%	-51%	
Cycle Trough	Sep24	Sep24	Sep24	Oct24	Sep24
Cycle Trough	1988	1877	1795	1449	1892
Dec24 vs Cycle Trough	3%	3%	2%	4%	3%

Another common casing size is 7 5/8", which was officially added to the Argus Pipe Logix data set in July 2024, plus overlapping data for the previous 6 months. The recent price trends for 7 5/8" casing follow the price trends realized for 7", with small pricing gains since mid-2024.



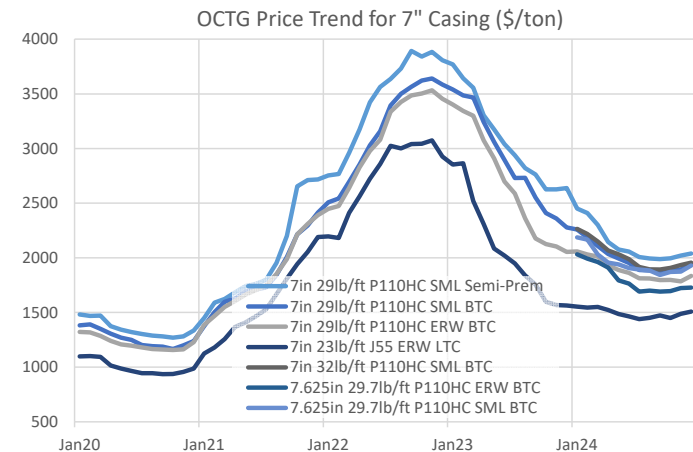
Seamless 7" 29# casing held price gains longer during 2023, pushing the premium higher for seamless over ERW. The SML price premium averaged 9% in 2023, including a brief spike in the premium to 16%. In 2024, the SML price premium has been relatively steady since Q2, between 4% - 6%.



### Surface Casing Prices

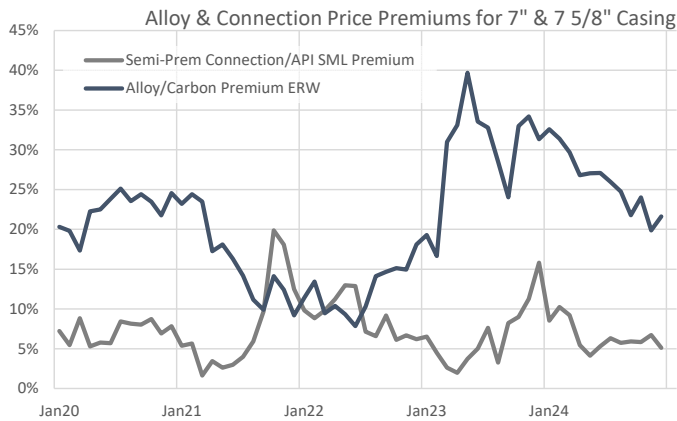
#### 7" Surface Casing

7" casing is commonly used as either surface casing or intermediate casing. The price of various 7" casing items peaked in 4Q 2022, decreased 47% - 51% by mid-2024 and have realized small price gains in 2H 2024.



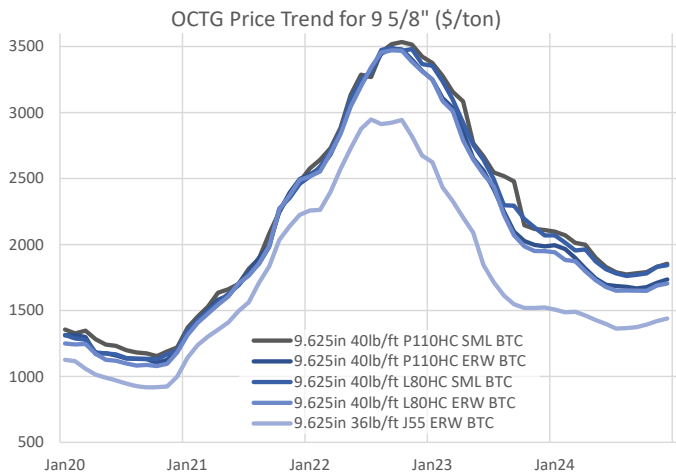
Alloy 7", specifically P110 grade, realizes a price premium to carbon, or J55 grade. This premium increased from 10% in 2022 to a peak of 40% in 2023 but has decreased steadily since. The current alloy price premium is 22%.

The price premium for a better connection on 7" casing, specifically a semi-premium connection as compared to an API (BTC) connection, has provided a price premium of 5% to 20% over the trailing 5 years. The December 2024 premium was 5% for a semi-premium connection over an API connection.



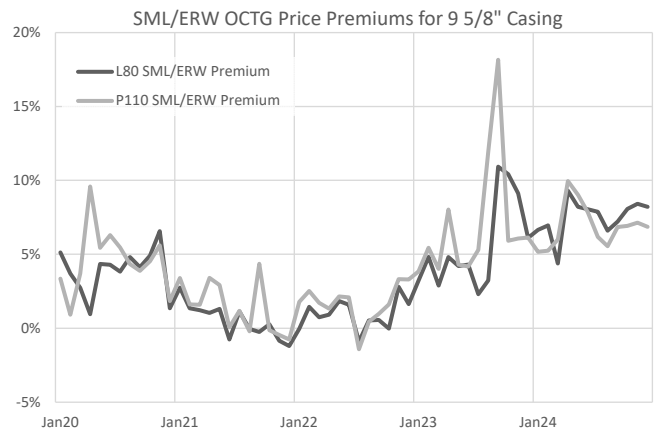
**9.625" Surface Casing**

Price trends for 9 5/8" casing followed the market up into 2022 with a peak price of \$2,944/ton for J55 and near \$3,500/ton for P110 and L80 grades. The decrease in prices to their lows in mid-2024 was around 50% for all grades. In the 2nd half of 2024, prices increased 5% for SML P110 and L80 items and for ERW J55 while price gains were slightly less for ERW P110 and L80.

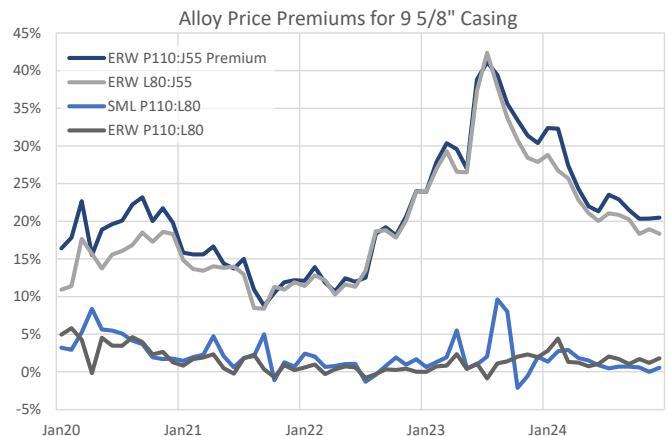


	OCTG 9.625in 40lb/ft P110HC SML Dec24	OCTG 9.625in 40lb/ft P110HC ERW Dec24	OCTG 9.625in 40lb/ft L80HC SML Dec24	OCTG 9.625in 40lb/ft L80HC ERW Dec24	OCTG 9.625in 36lb/ft J55 ERW BTC Dec24
Current	1,854	1,735	1,844	1,704	1,440
Previous month	1,831	1,709	1,831	1,689	1,420
Dec24 vs previous month	1%	2%	1%	1%	1%
Previous year	2,109	1,987	2,068	1,949	1,524
Dec24 vs year ago	-12%	-13%	-11%	-13%	-6%
Dec24 vs Cycle Peak	-48%	-50%	-47%	-51%	-51%
Dec24 vs Cycle Trough	5%	4%	5%	3%	5%

The SML to ERW price premium for 9 5/8" casing has increased. It was near 0% in 2022, then increased to 7% in 2023 for P110 SML over ERW and 8% for L80 SML over ERW.



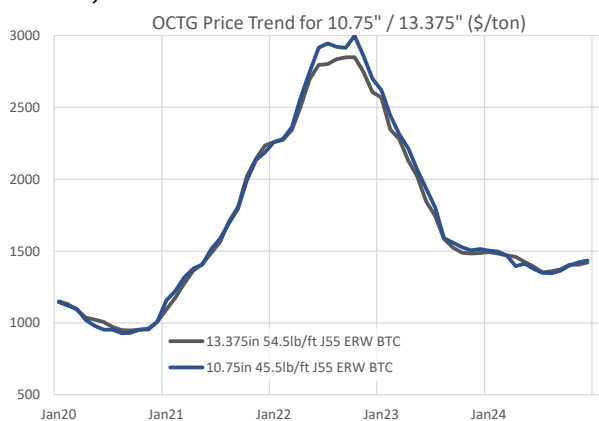
The price premium for P110 over L80 has been minimal, averaging 2% since 2020 for either ERW or SML products. The premium for 9 5/8" P110 or L80 over J55, the alloy price premium, has been more significant. During 2020 – 2021 it averaged 17% for P110 to J55 and 14% for L80 to J55. The premium increased to a peak in 2023 of 40%. It then decreased across 2024 and ended the year at 20% for P110 to J55 and 18% for L80 to J55.





### 10.75" and 13.375" Surface Casings

Carbon surface casings of 10.75" and 13.375" price about the same on a dollar per ton basis. The price trends for both increased in 2021 and 2022 to a peak in 4Q 2022. Price for 10.75" hit a peak of \$3,000/ton and 13.375" peaked at \$2,850/ton. Both subsequently decreased across 2023 and found support near \$1,350/ton in mid-2024. By December 2024, prices for both 13.375" and 10.75" had increased 1% from the mid-year low.



OCTG Price Trend for 10.75" / 13.375" (\$/ton)	13.375in 54.5lb/ft J55 ERW BTC	10.75in 45.5lb/ft J55 ERW BTC
	Dec24	Dec24
Current	1,420	1,434
Previous month	1,405	1,422
Janoo vs previous month	1%	1%
Previous year	1,486	1,515
Dec24 vs year ago	-4%	-5%
Dec24 vs Cycle Peak	-50%	-52%
Dec24 vs Cycle Trough	5%	7%

### Production Casing Annual Price History

	Production Casing					
	Carbon Welded		Alloy Welded		Alloy Seamless	
	J55 ERW		P110 ERW		P110 SML	
2015	1031	-19%	1462	-16%	1669	-16%
2016	800	-22%	1118	-24%	1311	-21%
2017	1110	39%	1447	29%	1612	23%
2018	1315	18%	1671	16%	1834	14%
2019	1249	-5%	1550	-7%	1734	-5%
2020	990	-21%	1236	-20%	1482	-15%
2021	1614	63%	1895	53%	2086	41%
2022	2785	73%	3316	75%	3667	76%
2023	2076	-25%	2755	-17%	3174	-13%
2024	1516	-27%	1917	-30%	2214	-30%

### Surface Casing Annual Price History

	Surface Casing							
	Carbon Welded		Carbon Seamless		Alloy			
	J55 ERW		K55 SML		P110 ERW	P110 SML		
2015	1051	-18%	1193	-17%	1441	-19%	1574	-17%
2016	830	-21%	1014	-15%	1092	-24%	1271	-19%
2017	1139	37%	1310	29%	1400	28%	1488	17%
2018	1322	16%	1504	15%	1602	14%	1696	14%
2019	1248	-6%	1450	-4%	1501	-6%	1604	-5%
2020	996	-20%	1098	-24%	1204	-20%	1285	-20%
2021	1609	62%	1626	48%	1827	52%	1893	47%
2022	2704	68%	2747	69%	3106	70%	3263	72%
2023	1945	-28%	2056	-25%	2599	-16%	2886	-12%
2024	1438	-26%			1821	-30%	2003	-31%

### Argus Pipe Logix Index Annual Price History

	ERW Index		Seamless Index		PLX Index	
2015	1303	-17%	1523	-17%	1413	-17%
2016	1022	-22%	1236	-19%	1129	-20%
2017	1330	30%	1504	22%	1417	26%
2018	1550	16%	1732	15%	1641	16%
2019	1433	-8%	1620	-6%	1526	-7%
2020	1145	-20%	1363	-16%	1254	-18%
2021	1835	60%	1964	44%	1899	51%
2022	3286	79%	3506	79%	3396	79%
2023	2625	-20%	2984	-15%	2805	-17%
2024	1710	-35%	2017	-32%	1863	-34%

### Historical Data Tables

The annual average spot prices for select tubing, production casing and surface casing are detailed in the following tables.

#### Production Tubing Annual Price History

	Tubing							
	Carbon Welded		Carbon Seamless		Alloy Welded		Alloy Seamless	
	J55 ERW		J55 SML		L80 ERW		L80 SML	
2015	1259	-16%	1528	-14%	1448	-14%	1633	-21%
2016	1010	-20%	1191	-22%	1150	-21%	1377	-16%
2017	1278	27%	1469	23%	1524	32%	1708	24%
2018	1559	22%	1782	21%	1823	20%	2032	19%
2019	1436	-8%	1630	-9%	1613	-11%	1844	-9%
2020	1144	-20%	1269	-22%	1264	-22%	1514	-18%
2021	1883	65%	1834	45%	2116	67%	2224	47%
2022	3625	92%	3409	86%	4044	91%	4205	89%
2023	2926	-19%	2954	-13%	3301	-18%	3549	-16%
2024	1670	-43%			1768	-46%	2067	-42%

## OCTG Market Drivers

Macroeconomic factors drive gas and oil markets which drive drilling activity that determines OCTG demand. Therefore, these drivers are continuously reviewed with key topics summarized in this section of the report.

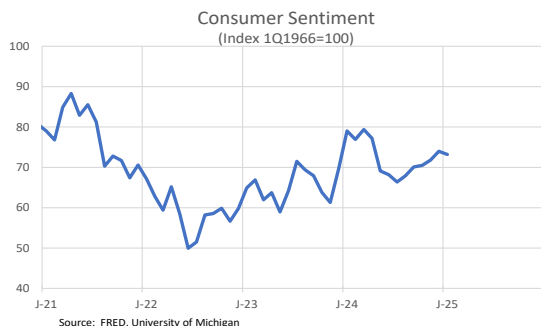
The US economy ended the year with strong consumer spending lifting the consensus estimate of GDP growth to an annualized rate of 2.7% in 2024. Expectations are for slower growth in 2025 and 2026. The Conference Board expects 2% growth in 2025. Most economists cite the potential changes in the labor market and monetary policy, and the potential seriousness of tariffs on trade and supply value chains.

Unemployment eased to 4.1% in December 2024 from 4.2% the previous month. The employment to population ratio, a measure that accounts for those capable of working, has remained near 60% since June 2024.

Unemployment in the oil and gas industry, which is part of the mining group, was 5.4% in December. It averaged 3.1% in 2024, up slightly from the previous year average of 2.7%.

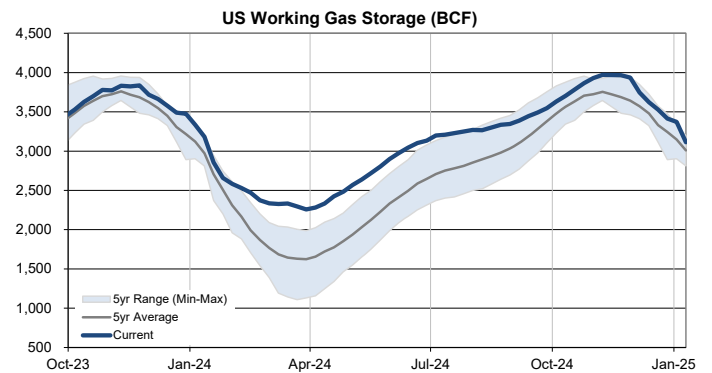
Sticky inflation has caused the Fed to pause cuts to the Fed Funds rate. With a long-term target rate of 2% inflation, the current Fed rate is 4.5%, down 85 basis points from the previous month. The December survey of economists expects the core inflation rate to be 2.4% in 2025 and the neutral nominal Fed rate to be 3%-3.5%.

Consumer sentiment, as measured by the University of Michigan, scored slightly lower in January 2025 at 73.2 compared to 74 in December 2024. Generally, consumer sentiment has trended up from an all-time low of 50 in June 2022.

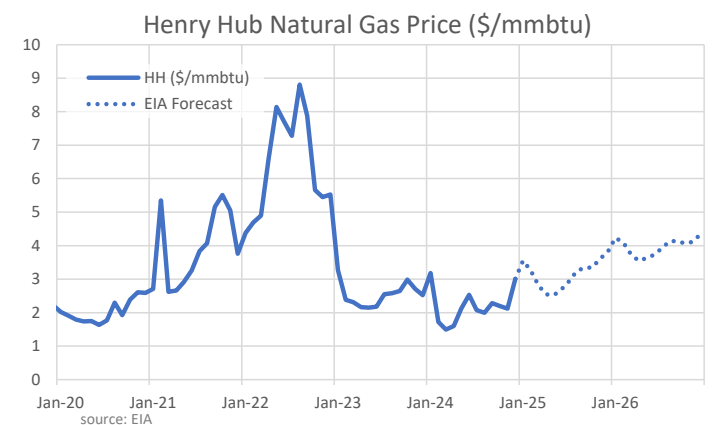


## Natural Gas Markets

The current gas storage level is 3.1 TCF, which is 2% lower than it was a year ago and 4% higher than the 5-year average. Inventory withdrawals have been minimal but recent cold weather across much of the US should increase withdrawals significantly. The EIA forecasts storage levels to bottom out at 1.9 TCF in March, 18% lower than the previous year but 15% above the 5-year average.



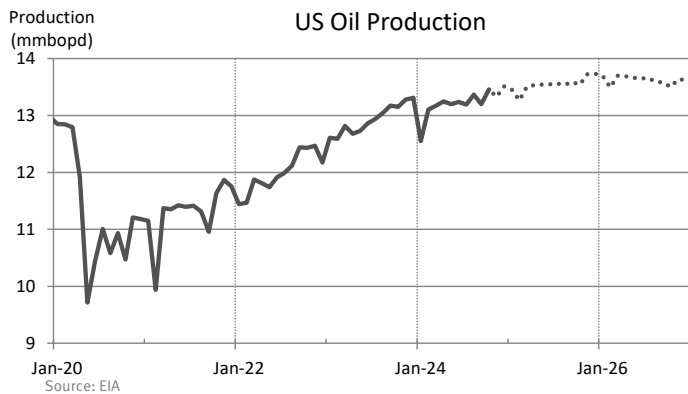
Spot natural gas prices averaged \$2.3/mmbtu in 2024 with a low of \$1.5 in March. Winter demand has driven gas price over \$3/mmbtu in December and early January prices were over \$4/mmbtu. The EIA expects gas prices to trend higher for the next two years, from an average of \$3.6/mmbtu this month to \$4.3/mmbtu by the end of 2026. They forecast average gas price, which allows for the dips during summer injections season, to be \$3.1/mmbtu in 2025, a 39% increase from the 2024 average. They forecast gas prices to increase another 27% in 2026 to \$4/mmbtu.



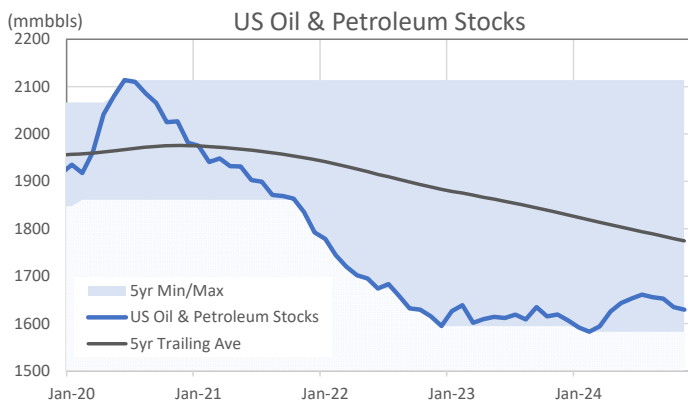
A survey of 100+ oil and gas companies by the Federal Reserve bank supports the EIA forecast. Participants expect gas prices to average \$3.3/mmbtu a year from now. As a group, the oil and gas companies expect the long-term gas price to average \$4.2/mmbtu. The statistical range of company expectations is from \$2.25/mmbtu to \$9/mmbtu in 2030.

**Oil Markets**

US oil production continues to set record highs ending 2024 at 13.4 mmbopd. However, the growth rate has slowed, and the forecast is for marginal gains in supply through 2025. The preliminary EIA forecast calls for oil production to average 13.5 mmbopd in 2025 and 13.6 mmbopd in 2026.



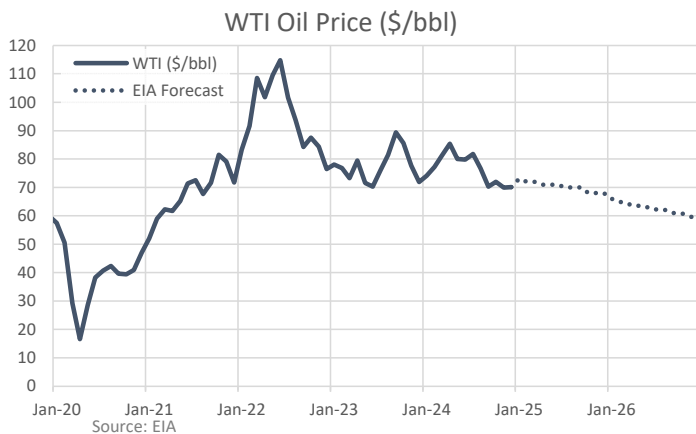
Petroleum inventories have been relatively steady across 2023 and 2024 at 1.7 bnbo, down 21% from the peak of 2.1 bnbo in 2020. The Strategic Petroleum Reserve (SPR) is up 11% from a year ago but down 40% compared to the June 2020 level. Commercial Crude is down 4% from a year ago and down 21% from 4 years ago, highlighting the differing strategies between private companies and the Biden Administration regarding inventory levels. The Trump Administration has stated they intend to fill the SPR.



US production gains and low inventories have been somewhat offsetting with their impact to oil price. The Argus forecast is for WTI to average \$75/bbl in 2025 and creep slightly higher in 2026 - 2027. Current factors influencing price include:

Bullish
<ul style="list-style-type: none"> <li>▲ Extension of Opec+ cuts into 1Q25</li> <li>▲ Extreme cold in US/Europe</li> <li>▲ Relatively low stocks globally</li> <li>▲ Rising expectations for China stimulus after public sector pay rises announced</li> <li>▲ Possible tightening of sanctions on Iran and/or Venezuela</li> <li>▲ Continuing tensions in Middle East</li> </ul>
Bearish
<ul style="list-style-type: none"> <li>▼ Opec+ spare capacity ample</li> <li>▼ Chinese crude runs remain weak, despite new import quotas</li> <li>▼ Continued strong growth in non-Opec+ supply</li> <li>▼ Fears that Donald Trump's tariffs will lead to trade wars and depress economic growth</li> <li>▼ Perception/expectation that Trump will be 'softer' on Russia</li> <li>▼ Europe, China and India December manufacturing PMIs slow</li> <li>▼ US Fed signals slowdown in policy easing for 2025</li> <li>▼ Persistent US dollar strength</li> <li>▼ European industry pressured by resurgent gas and power prices</li> </ul>

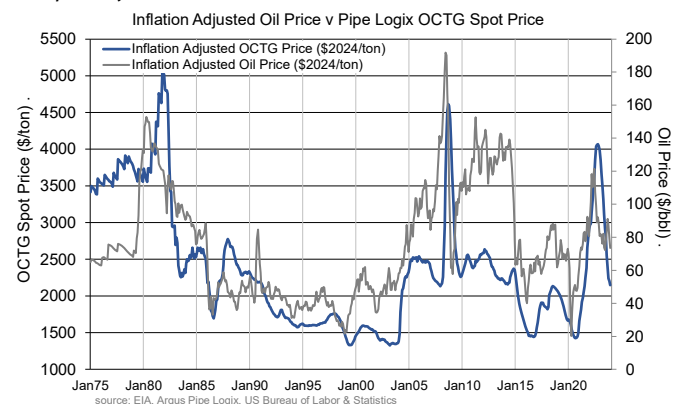
The EIA forecast is much more pessimistic through 2026. They call for oil price to decrease slowly in 2025 and more dramatically in 2026 to a low of \$60/bbl by December 2026. Their average forecast is \$70/bbl in 2025, down 8% from the 2024 average, then down 11% to average \$63/bbl in 2026. Their 2026 forecast is 10% lower than the current Futures market for WTI in 2026.



The Federal reserve survey of oil and gas companies found expectations are for oil price to average \$69/bbl in 2025. Their survey also captures expectations 5 years out, and with a range from \$40/bbl to \$125/bbl, the average price expectation is \$80/bbl in 2030. The survey shows 80% of the oil and gas

companies have used \$65/bbl or higher as a base price for their capital spending in 2025.

Long-term correlations between oil price and OCTG price are not statistically significant but the inflection points of these two data series are sometimes coincidental. There are periods of good correlation and periods of not so good. During the oil price decline from 2021 to mid-2022, the correlation was 0.9 (where 1.0 is perfect) but in 2023 and 2024, the two data series became completely untethered.



**Upstream Spending Expectations**

The most recent Federal Bank Survey shows 43% of oil and gas companies expect to increase their capital spending slightly in 2025 while 19% expect it to remain the same. Only 11% of the companies expect to decrease their spending significantly in 2025. Other private surveys and review of public company presentations show oil companies plan limited to no increase in capital spending in 2025.

**Politics**

It is hard to overlook the potential impact of the new US Presidential Administration. Immediately after his inauguration, President Trump made comments and signed many executive orders targeting the oil and gas industry. Some of it is aimed at increasing oil and gas supply, some for increasing demand and others to lower price. It would be a major achievement to keep the market in balance and realize all three goals.

One of the executive orders is purported to encourage oil and gas development across Alaska. Another order is to re-open permitting for construction of LNG export terminals. These actions are likely to be met with lawsuits from environmental

groups, which will slow the implementation of these orders and delay the intended response by the industry.

The White House also issued an executive order to dismantle parts of the IRA clean energy initiatives. The IRA provided funding to wind and other renewable energy. This executive order would terminate funding of such initiatives and eliminate incentives for EV cars and disincentives for gasoline powered (IC) cars.

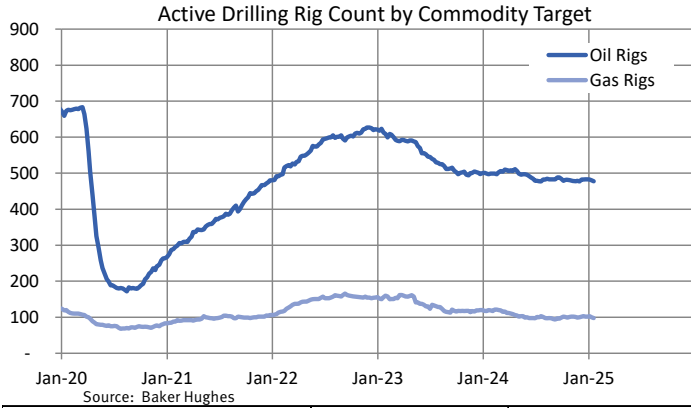
Statements made by the incoming President include a repeat of the mantra of “Drill, baby drill”. Some of the oil and gas goals originally included with this mantra could be unachievable, such as the statement to increase production 5-fold, which is overly ambitious and probably reckless.

What is apparent is that the political landscape has become much more friendly to the oil and gas industry. It is an indication that current administration is putting in place the right incentives for oil and gas energy that is available, dependable, and affordable. This will eventually allow private oil industry to reverse several years of cowering to an oppressive environment. It bodes well for increased drilling activity and OCTG demand.

Lawsuits are expected from environmental groups that will delay a significant industry response to increase drilling or permitting activity. The length of delay will depend on the foundation of the opposition but could delay the increase in drilling by months or even years. Also, threatened tariffs may present a challenge to OCTG import supply. The combination of higher demand plus tariffs on partial supply, could serve as an accelerator for higher OCTG prices if the said policies are in place and the market begins to respond.

**Drilling Activity**

Overall, there are 580 active drilling rigs in the US, which is down 6% from a year ago and down 26% from the peak in 2022. The oil rig count is 82% of the drilling activity and it is down 4% from a year ago while the gas rig count is down 18% for the same period. Horizontal drilling activity accounts for 89% of the current rig count and is down 8% from a year ago.



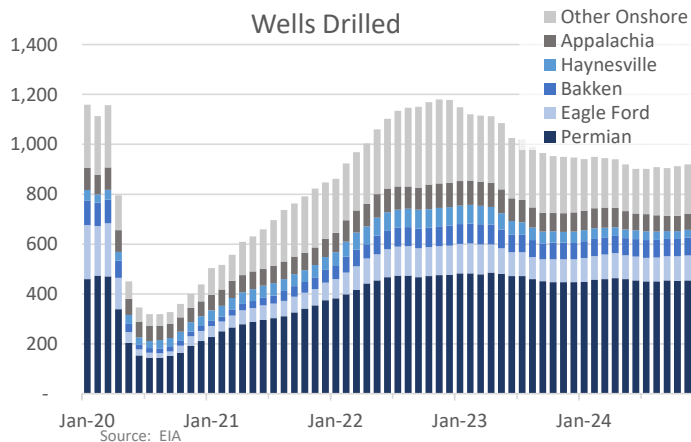
Source: Baker Hughes

		Total Rigs	% Chg	Oil Rigs	% Chg	Gas Rigs	% Chg
<b>Current</b>	1/17/2025	<b>580</b>		478		98	
vs year ago	1/19/2024	620	-6%	497	-4%	120	-18%
vs peak on:	12/2/2022	784	-26%	627	-24%	166	-41%
vs trough on:	8/14/2020	244	138%	172	178%	68	44%

Companies operating in a few regions are expected to soon find relief from bureaucracy and thus more incentive to initiate drilling operations. This includes onshore federal lands and offshore Gulf of “America”, plus Alaska onshore and offshore. The previous administration had purposely slowed the process for oil and gas companies. The most recent Fed Survey shows two-thirds of the oil and gas companies expect the time required for obtaining a drilling permit on federal lands to be faster.

### New Wells Drilled

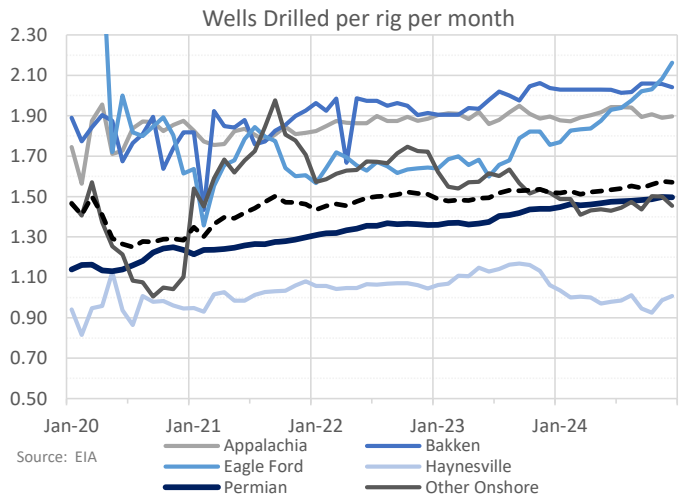
Onshore drilling activity is estimated by the EIA to involve 925 new wells drilled in December 2024, down 2% from a year ago. Per the EIA, the total number of new wells drilled in 2024 is estimated at 11,100 wells, down 11% from the total the previous year. Half of the wells were drilled in the Permian region. The next most active region is the Eagle Ford, which accounted for 11% of all new wells drilled in 2024.



Putting together the rig count with the estimated wells drilled provides a measure of rig efficiency. The ratio of wells per rig per month has increased for some regions, decreased for other regions, which makes the mix of drilling locations also important to rig efficiency.

Drilling operations in Appalachia averaged 1.9 wells per rig in 2024, up 5% from 2020. The average rig in the Haynesville averaged nearly 1 well per month in 2024, up 3% from 2020. The Bakken region was 1.8 wells/rig/month in 2020 and is now estimated to be nearly 2.0 currently, which is 13% growth in 4 years.

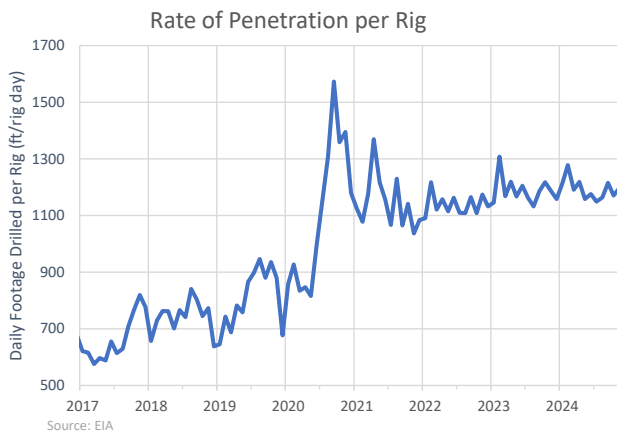
The most active region is the Permian, where there have been steady gains in rig efficiency since 2020. Rig productivity was 1.2 wells/rig in January 2020 and increased to an estimated 1.5 wells/rig in December 2024, which is 22% growth. The combined drilling efficiency for the entire US onshore is 15% growth from 1.3 wells per rig in 2020 to 1.5 wells per rig in 2024.



Furthermore, the wells in some regions are drilled to deeper depths due to longer laterals since 2020. Thus, the efficiency in footage drilled per rig per month has grown. The EIA estimates the total footage drilled in 2024 was 262 million feet, up 60% from total footage drilled in 2020. Dividing by the respective rig counts each year, the rig productivity has grown from an average of 33,700 feet per month in 2020 to 36,300 feet per month in 2024. Thus, while rig efficiency grew 15% in terms of wells drilled per rig, the efficiency increased 8% when measured in footage drilled per rig.

Common drilling terms are the ROP or rate of penetration for the drilling operation. The average in 2020 was 1,104 feet per day per rig. However, 2020 was an “odd” year given Covid’s impact on the market. The ROP seem to find a support level at 1,100 ft/day after Covid, in 2021. This is a 22% gain from the 900 ft/day during mid-2019 and a 57% gain from the ROP below 700 ft/day in early 2017. The gain from 2022 through 2024 has been minimal, up 5% to average 1,194 ft/day in 2024 or an annualized gain of just over 2%.

The DUC well count decreased 10% in 2024 to end the year at 5,200 wells. The DUC count was lower for every region in 2024, even the Haynesville was down 1% from the start of the year. From the peak in 2020, the Permian DUC count is down 78% and the Eagle Ford is down 77%. The Bakken DUC count is down 52% from the peak. The Haynesville DUC count has doubled since 2020 and now represents 14% of all DUC wells.

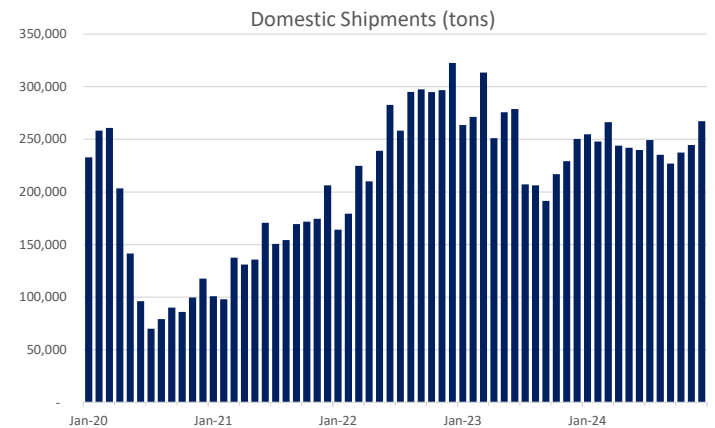


## OCTG Supply

### Domestic Shipments

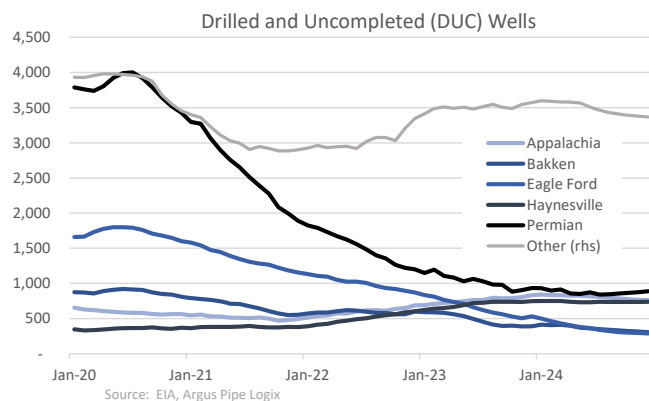
Domestic mill shipments are part of a data series consolidated directly by Argus Pipe Logix each month. Domestic shipments were unchanged from the previous year at nearly 3 million tons.

Monthly volumes peaked in December 2022 at 322,700 tons then steadily decreased to a low of 191,600 tons in September 2023. Later in 2023, monthly shipments bounced back to average 246,300 tons/month through 2023 and 2024 including a 12-month high of 268,000 tons in December 2024.



### DUC Wells

Drilled but uncompleted (DUC) wells impact tubing markets differently than casing markets. Casing is part of the well construction and therefore casing is purchased and deployed (consumed) with the drilling program. Production tubing is part of the completion process and needed only after wellbore pressure drops below a flowing rate. Production tubing may not be purchased or deployed until the well completion activity is finalized and the well pressure falls off. Thus, the decreasing DUC count experienced in 2021 was a bullish sign for the tubing market since the rig count was also increasing, which is a bullish sign for the casing market.



OCTG shipments can be segmented between seamless or ERW and between alloy or carbon. In 2024, 71% of the total shipments were seamless products, up from 68% the previous year, and 92% of all OCTG shipments were alloy grade in 2024, up from 91% the previous year. Shipments of ERW casing and tubing decreased 9% from the previous year to a total of 853,000 tons in 2024 while seamless volumes were up 4% to 2.1 million tons. Seamless shipments averaged 182,700 tons/month in 4Q 2024, an 11% increase in seamless shipment volumes compared to volumes in 4Q 2023.

**Imports**

Monthly import volumes are estimated according to license data to have been 153,000 tons in December. That makes the total full year import volumes at 1.6 million tons in 2024, which is down 34% from the previous year.

The largest supplying country was, again, South Korea with volumes of 499,000 tons, unchanged from the previous year. Volumes from Canada, the 2<sup>nd</sup> largest supply nation, were down 21% to 211,600 tons, representing 13% of the total volumes. Volumes from Taiwan jumped 48% to 202,700 tons in 2024, making it the 3<sup>rd</sup> largest supplying nation.

Most nations decreased their supplies in 2024. Volumes from Japan were down 100,000 tons or down 58% from the previous year. Volumes from Thailand were down 181,000 tons or down 75%. Mexico volumes were down 50% to 77,200 tons.

OCTG Imports Dec2024 YTD				
	YTD 2024	YTD 2023	yr/yr chg	%Total
Korea, South	498,785	501,259	0%	31%
Canada	211,600	266,474	-21%	13%
Taiwan	202,745	136,992	48%	13%
Austria	140,118	149,134	-6%	9%
Japan	72,048	171,829	-58%	5%
Mexico	77,160	153,940	-50%	5%
Thailand	60,619	241,938	-75%	4%
Italy	50,401	120,306	-58%	3%
Turkey	45,558	74,029	-38%	3%
Brazil	43,535	42,493	2%	3%
Spain	38,401	50,483	-24%	2%
Vietnam	29,364	66,556	-56%	2%
Ukraine	25,901	56,300	-54%	2%
Romania	17,880	32,055	-44%	1%
United Arab E	13,069	38,864	-66%	1%
Others	67,982	325,734	-79%	4%
	<b>1,595,167</b>	<b>2,428,388</b>	<b>-34%</b>	<b>100%</b>

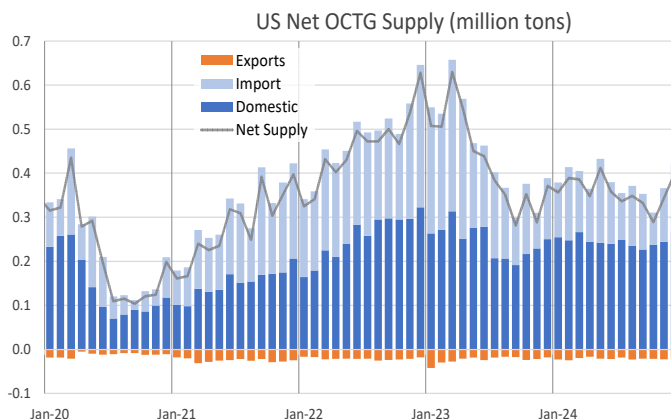
\* Includes DOC license data for December

**Total Supply**

Combining domestic shipments and preliminary import volumes, and netting out exports, provides a preliminary total domestic supply of 4.3 million tons of OCTG in 2024. That is a 16% decrease from the net domestic supply the previous year.

Monthly volumes were mostly steady across the first half of 2024, averaging 367,000 tons/month. Import volumes dipped in July and dipped further in October, reducing the average supply

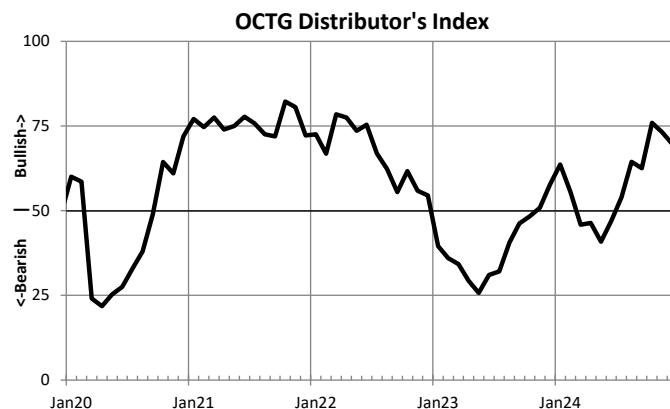
during July through November by 10% to 330,000 tons before bouncing back to 400,000 tons in December.



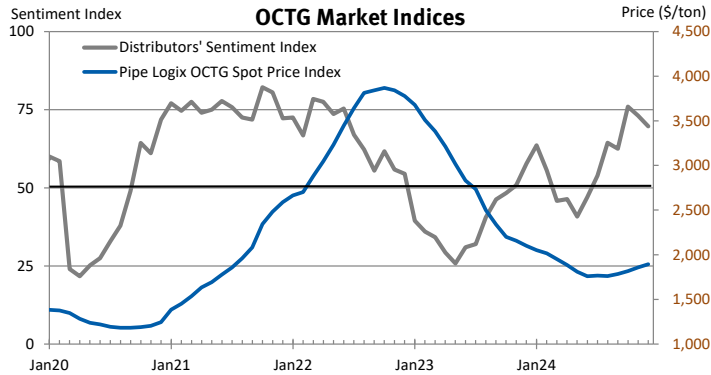
Dividing tons of supply by the average number of active rigs provides a supply rate of 612 tons/rig in 2024, which is down 6% from the 2023 average. During periods of steady prices, this ratio can serve as an approximate consumption rate. Qualitatively, the ratio provides an indicator of oversupply and undersupply, often followed by price change. The large decreases in OCTG pricing in 2023 and midway through 2024, suggest the market was oversupplied. During this period, the ratio was 645 tons/rig/month. During the most recent 6 months, as prices stabilized and began to increase, the ratio was 576 tons/rig/month.

**Industry Sentiment**

The current OCTG Distributor's Index score is 70, a strongly bullish indicator. Sentiment first became bullish in July 2024 and quickly surged to a score of 76 by October. The score has eased slightly across November and December but remains an indicator for higher prices.

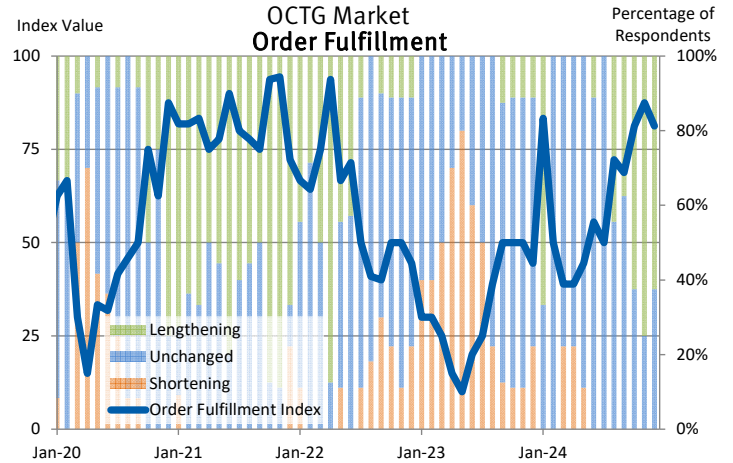


Comparing the trends of the Distributor’s Sentiment Index to the trends in OCTG pricing has shown significant correlation since the index inception. Gains in OCTG prices, as recorded in the Argus Pipe Logix Price Index, tend to follow trends in sentiment with a lag time of several months. In this cycle, sentiment has been bullish for 6 months and OCTG prices have been increasing for 4 months.



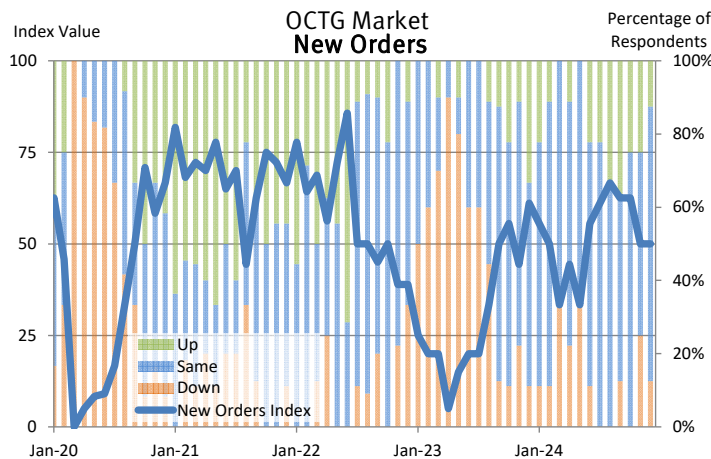
**Order Fulfillment**

The time to obtain product from manufacturers is lengthening according to most distributors. This component of the sentiment index became strongly bullish in August and scored 81 in December.



**New Orders**

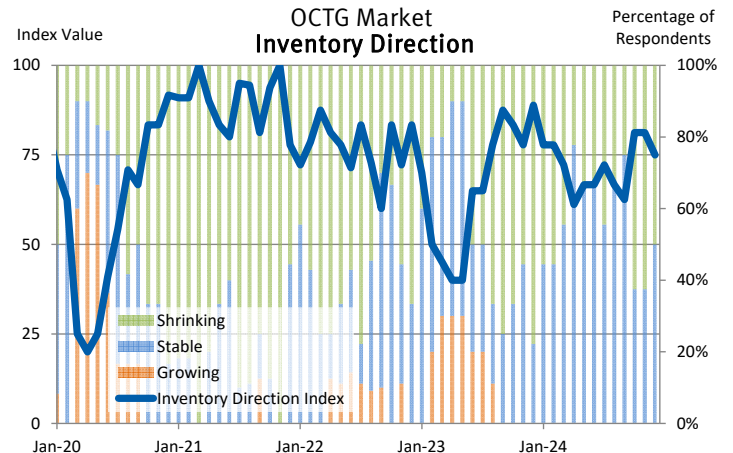
Each of the components of the sentiment index can be analyzed separately to better understand the market’s weaknesses and strengths. New Orders is a component of the index that ended 2024 at a reading of 50, a neutral market indicator. Three-fourths of respondents reported their orders are the “same” as the previous month. This sentiment component was bullish from June 2024 through October. Being neutral suggests the increased order volumes realized in the 3<sup>rd</sup> quarter of 2024 were sustained through the 4<sup>th</sup> quarter, not increasing, and not decreasing.



Three measures of inventory are components to the overall index of sentiment. Two of the three remain bullish indicators; Inventory Direction and Unsold Inventory, while the general inventory assessment has recently become a neutral indicator.

**Inventory Direction**

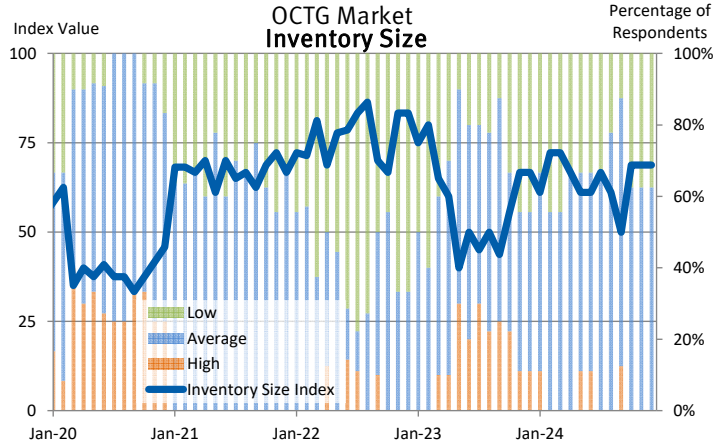
Inventory direction has been a bullish score since mid-2023 and the latest score in December 2024 was 75, strongly bullish. Half of the distributors stated their inventories are shrinking and the remaining distributors classify their inventory as stable. Depleting inventories is a bullish indicator for future pricing.





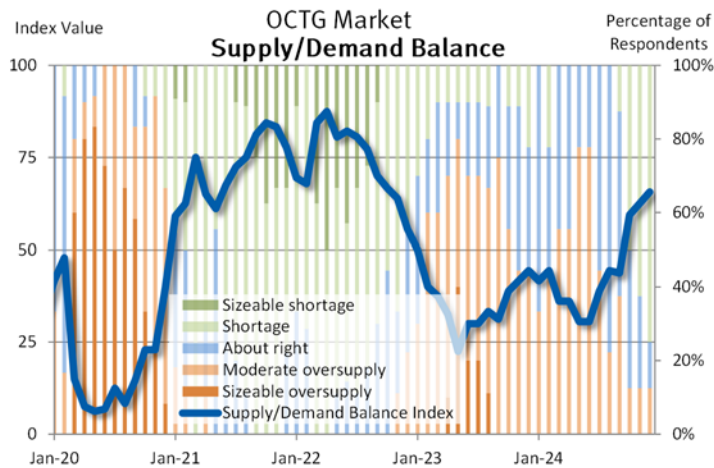
**Inventory Size**

Inventory size also is bullish with more than a third of the Distributors indicating their inventories are low. This indicator scored 69 in December, having scored above 60 for all but one month in 2024.



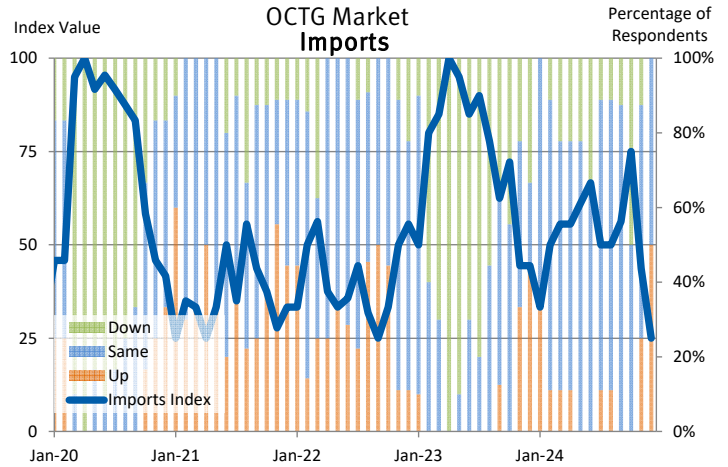
**Supply Demand Balance**

The component for overall balance of supply and demand scored 66 in December, up from 31 in June. Most Distributors currently view the overall market as in a shortage, where, just 6 months ago, most Distributors labeled the market as moderately oversupplied.



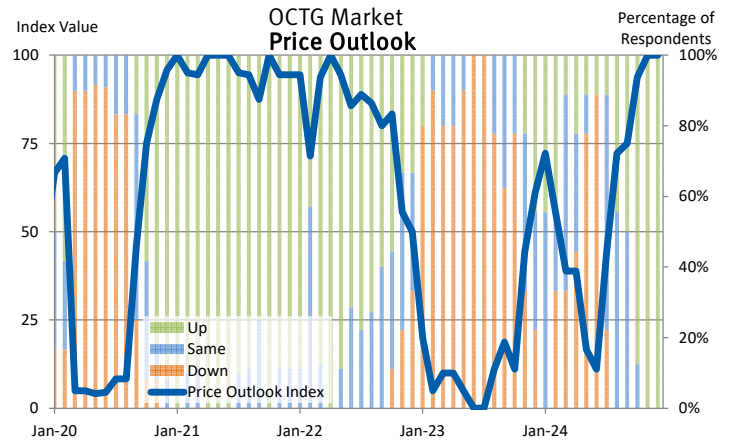
**Imports**

The outlook for import volumes, as a component to the sentiment index, has swung from a strongly bullish indicator in October to a strongly bearish indicator last month. The score for this component was 75 in October and came in at 25 in December. Distributors suggest import volumes are expected to increase in the near-term.



**Price Outlook**

Distributor's sentiment for near-term pricing is unanimous for higher prices in the near-term. This component was at a low score of 11 in June 2024 and jumped to 72 in August and has been a perfect score of 100 for the past two months.



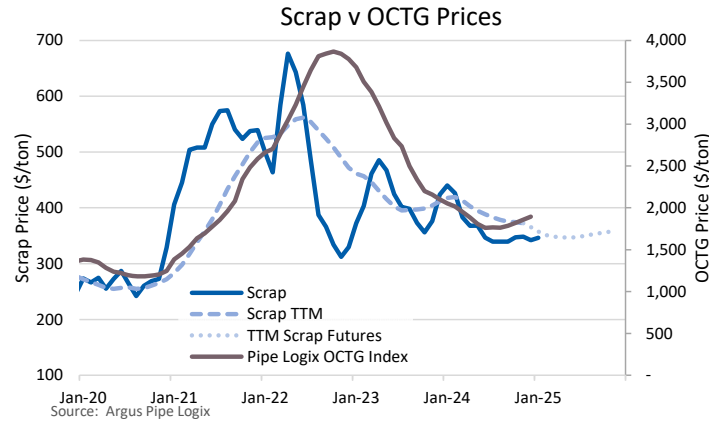
**Manufacturing Component Prices**

**Scrap**

Scrap is a key component to EAF pipe facilities. Prices for scrap steel were a good leading indicator prior to 2021 for coming changes in OCTG pricing; especially using the average trailing twelve months (TTM) scrap price. The correlation has been unreliable since 2021 for absolute direction and magnitude of OCTG price changes but remains a logical driver of pipe prices.

Scrap prices have been mostly steady for 8 months at an average of \$343/ton since June 2024. December scrap steel prices

averaged \$342/ton, down 19% from a year ago. Futures markets indicate scrap prices will marginally increase in 2025, ending the year near \$375/ton. Thus, the trailing-twelve-months price of scrap offers little support for OCTG price increases in 2025.

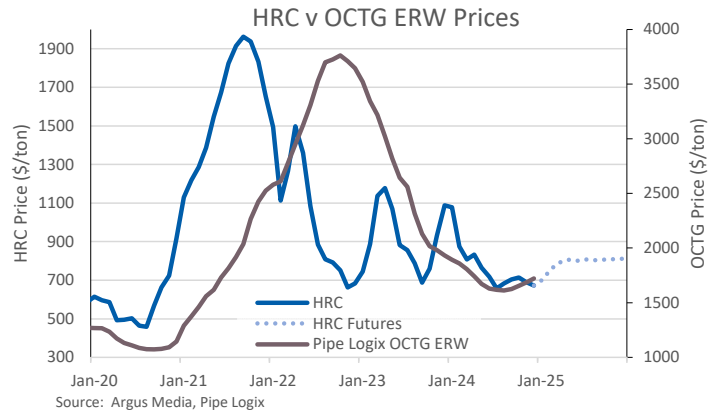


**Hot Rolled Coil**

Hot rolled coil (HRC) is the key manufacturing component for ERW casing and tubing. HRC prices found support, again, near \$700/ton in mid-2024. HRC averaged \$693/ton for August 2024 through December. The average during the first half of January 2025 was \$677/ton, appearing to break below the support floor.

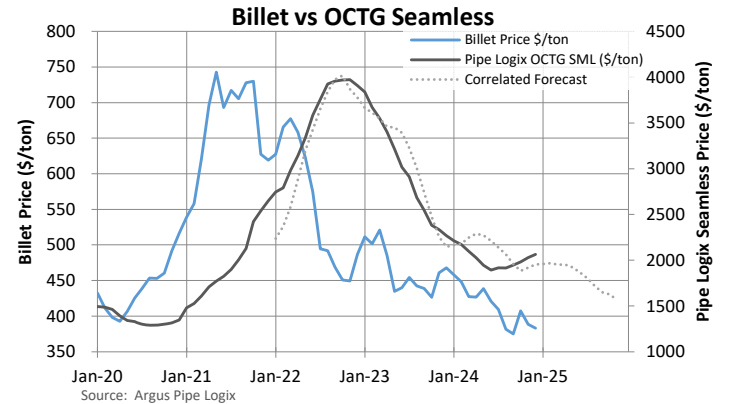
ERW prices have loosely tracked HRC prices since April 2024 with a 7% decrease in ERW price following a 21% decrease in HRC price from April to July. For the remainder of the year, HRC prices gained 2% by December and ERW prices were up 6%. Thus, the margin of ERW price to HRC increased in 2024. The price ratio of ERW to HRC was a margin of 80% in January 2024 and increased to 156% by the end of the year. The long-term margin is 143%.

Futures markets indicate HRC price will increase into 2Q 2025, then hold near \$800/ton across the remainder of the year. Should the 143% margin be re-established against this HRC forecast, ERW prices would be expected to increase toward \$1,970/ton by the end of 2025.



**Billets**

Steel billets are a key cost component to seamless pipe manufacturing. Billet prices decreased 20% from December 2023 until September 2024. Through the remainder of 2024, prices were mostly unchanged with December averaging \$383/ton. Seamless OCTG prices have shown reasonable correlation to billet price by using a 12-month lag on a trailing average. This correlation, along with billet price declines in 2H 2024, suggests seamless OCTG prices will decrease in the 2<sup>nd</sup> half of 2025.



**Iron Ore**

Iron ore prices averaged \$108/ton in 2024, down \$10/ton from the previous year's average. The December 2024 price was \$104/ton, down 24% from a year previous. Futures market contracts indicate 2025 prices will ease toward \$96/ton by year's end.

ISSN 2756-0724

**Copyright notice**

Copyright © 2025 Argus Media group. All rights reserved. All intellectual property rights in this publication and the information published herein are the exclusive property of Argus and/or its licensors (including exchanges) and may only be used under licence from Argus. Without limiting the foregoing, by accessing this publication you agree that you will not copy or reproduce or use any part of its contents (including, but not limited to, single prices or any other individual items of data) in any form or for any purpose whatsoever except under valid licence from Argus. Further, your access to and use of data from exchanges may be subject to additional fees and/or execution of a separate agreement, whether directly with the exchanges or through Argus.

**Disclaimer**

The data and other information published herein (the "Data") are provided on an "as is" basis. Argus and its licensors (including exchanges) make no warranties, express or implied, as to the accuracy, adequacy, timeliness, or completeness of the Data or fitness for any particular purpose. Argus and its licensors (including exchanges) shall not be liable for any loss, claims or damage arising from any party's reliance on the Data and disclaim any and all liability related to or arising out of use of the Data to the full extent permissible by law. All personal contact information is held and used in accordance with Argus Media's Privacy Policy <https://www.argusmedia.com/en/privacy-policy>

**Publisher:** Adrian Binks

**Chief operating officer:** Matthew Burkley

**Global compliance officer:** Jeffrey Amos

**Chief commercial officer:** Jo Loudiadis

**President, Expansion Sectors:** Christopher Flook

**SVP Consulting Services:** Lloyd Thomas

**VP Pipe and Tube:** Kurt Minnich

**Customer support and sales:**

[support@argusmedia.com](mailto:support@argusmedia.com)

[sales@argusmedia.com](mailto:sales@argusmedia.com)

London: Tel: +44 20 7780 4200

Houston: Tel: +1 713 968 0000

Singapore: Tel: +65 6496 9966