

LatAm Petrochemicals

Monthly Petrochemical Monitor: Mixed performances in December

Industry Overview

BofA Monthly Petrochemical Monitor

In our BofA's Monthly Petrochemical Monitor, we track the performance of the most important petrochemical spreads for the companies within the LatAm coverage. Any feedback and suggestions are more than welcome!

Mixed spreads in December

During December, petrochemicals spreads presented a mixed performance. We saw positive performances for PVC and PET spreads. On the other hand, PE and PET spreads tightened in the month. PP spreads were mostly flattish. We highlight that all the spreads continue well below their 5-year historical average amid weak demand and low operating rates.

PE: Weak spreads in both naphtha and ethane-based

PE spreads contracted again in December explained by lower PE prices. According to CMA, it seems that PE prices have reached the bottom of the cycle and price-adjustments upward are broadly expected to be announced in January by the market.

PP: Mixed spreads in December

PP spreads were mostly flat in December. Asian and North American spreads were flattish MoM, while European were up 2% in the period. Asian spreads were flattish amid fragile demand and with no signs of recovery. For the North American market, PP domestic demand remains weak. Regarding the European market, spreads widened mainly due to a drop in propylene prices.

PVC: rebound in PVC prices supported higher spreads

Asian PVC spreads recovered 21% MoM, mainly due to rebounding PVC prices supported by a restocking trend in India. However, according to CMA this movement lasted for only a few weeks. In January, we do not expect the momentum to be sustained given the still slow construction activity in China and the increase in PVC availability as several producers were close to completing their scheduled maintenance.

PET: Spreads flat amid quiet activity in December

PET integrated margins were US\$178/ton in December, virtually flat MoM. Domestic PET prices remained moving sideways amid a slow demand scenario. December activity was quieter, and market participants believe that demand has already bottomed. Some supply disruptions occurred in China, but not enough to offset weak demand.

EPS: Spreads narrowed due to lower feedstock prices

In December, EPS spreads narrowed to US\$703/ton, down 4% MoM, driven by lower EPS prices. EPS declined mainly due to low feedstock cost pressure. Regarding Styrene, raw-material costs remained in a downward trend and, according to CMA, the market expects it to bottom now in January.

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Equity
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PE – Polyethylene

PVC – Polyvinyl chloride

PP – Polypropylene

PET – Polyethylene terephthalate

PTA – Purified terephthalic acid

MEG – Monoethylene glycol

EPS – Expandable polystyrene

MoM – Month-over-month

CMA – Chemical Market Analytics

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Monthly Petrochemical Monitor: Mixed performances in December

During December, petrochemicals spreads presented a mixed performance. We saw positive performances for PVC and PET spreads. On the other hand, PE and PET spreads tightened in the month. PP spreads were mostly flattish. We highlight that all the spreads continue well below their 5-year historical average amid weak demand and low operating rates.

Exhibit 1: Summary of petrochemical spreads performance LTM

Overall spreads are significantly below vs. 1-year ago figures

	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23
US PE - Naphtha	307	272	337	383	345	382	301	249	243	265	330	267	231
MoM %	9%	-11%	24%	14%	-10%	11%	-21%	-17%	-3%	9%	25%	-19%	-13%
US PE - Ethane	633	768	872	884	878	822	706	586	683	742	766	722	720
MoM %	-1%	21%	13%	1%	-1%	-6%	-14%	-17%	17%	9%	3%	-6%	0%
Asian PP - Naphtha	310	305	358	338	321	393	316	292	278	244	293	275	274
MoM %	42%	-2%	17%	-6%	-5%	22%	-20%	-8%	-5%	-12%	20%	-6%	0%
US PP - Propylene	816	441	441	441	441	441	441	441	441	441	441	441	441
MoM %	-8%	-46%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
EUR PP - Propylene	257	266	255	251	262	248	237	233	229	227	218	228	233
MoM %	5%	3%	-4%	-1%	4%	-6%	-4%	-2%	-1%	-1%	-4%	5%	2%
Asian PVC - Naphtha	136	120	166	240	177	224	215	187	158	176	190	112	135
MoM %	35%	-12%	38%	45%	-26%	27%	-4%	-13%	-16%	11%	8%	-41%	21%
Asian PET Integrated Margin	263	238	260	252	257	260	216	177	183	145	189	191	192
MoM %	7%	-9%	9%	-3%	2%	1%	-17%	-18%	3%	-21%	30%	2%	0%
EPS Margin	1,371	1,120	1,062	1,253	1,123	1,000	975	697	339	403	523	736	703
MoM %	-6%	-18%	-5%	18%	-10%	-11%	-3%	-29%	-51%	19%	30%	41%	-4%

Source: BofA Global Research, Chemical Market Analysis

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PE: Weak spreads amid a soft demand

US PE-Naphtha contracted again in December (-13% MoM) explained by lower PE prices (down approx. 3% MoM) partially offset by a 1% MoM increase in Naphtha prices to US\$643/ton.

US polyethylene prices were down 3% in December to US\$866/ton (vs. US\$895/ton in November) but, according to Chemical Market Analytics, it seems that PE prices have reached the bottom of the cycle and price-adjustments upward are broadly expected to be announced in January by the market.

Demand improved during December as the industry has operated at normal levels. Operating rates are expected to have increased above 86% in December as producers are taking advantage of low feedstock cost. Separately, while in November inventories have increased, they might have decreased in December, following higher exports.

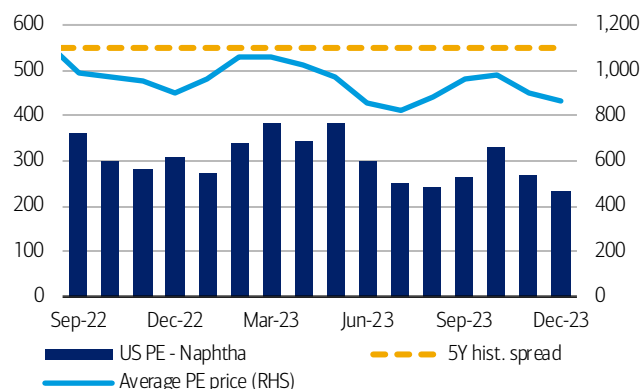
Market participants believe that prices have bottomed out and global factors, such as the conflict in the Red Sea and the stocking ahead of Chinese New Year, will pressure prices up due to higher logistics costs and higher demand. Some producers already announced a 5cpp (approx. US\$110/ton) price increase for all PE grades effective January 1st.

US PE-Ethane spreads were flat MoM as ethane fell to US\$137/ton (-18% MoM) registering the lower level in the last 43 months (since March 2020).

US PE-Naphtha spreads decreased to US\$231/ton in December, down 13% vs. US\$267/ton in November, and remain significantly below the 5-year average of US\$549/ton. US PE-Ethane spreads clocked in US\$720/ton, almost flat when compared to the US\$722/ton from the previous month, and still below the 5-year average of US\$920/ton.

Exhibit 2: North America PE – Naphtha spread (US\$/ton)

Spreads narrowed 13% MoM

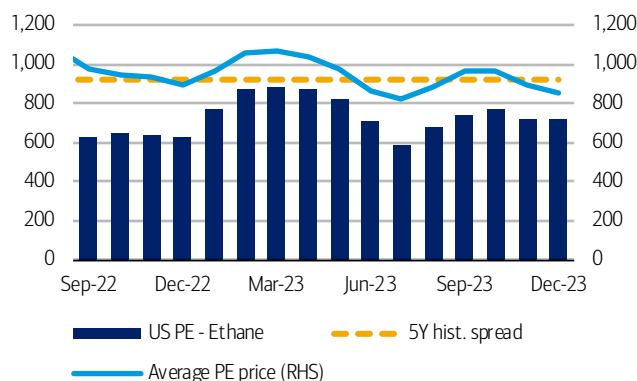


Source: BofA Global Research, Chemical Market Analytics, Bloomberg | * avg = 40% HDPE, 30% LDPE and 30% LLDPE

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Exhibit 3: North America PE – Ethane spread (US\$/ton)

Spreads virtually flat MoM



Source: BofA Global Research, Chemical Market Analytics | * weighted average = 71% HDPE and 29% LDPE

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PP: mostly flat spreads in December

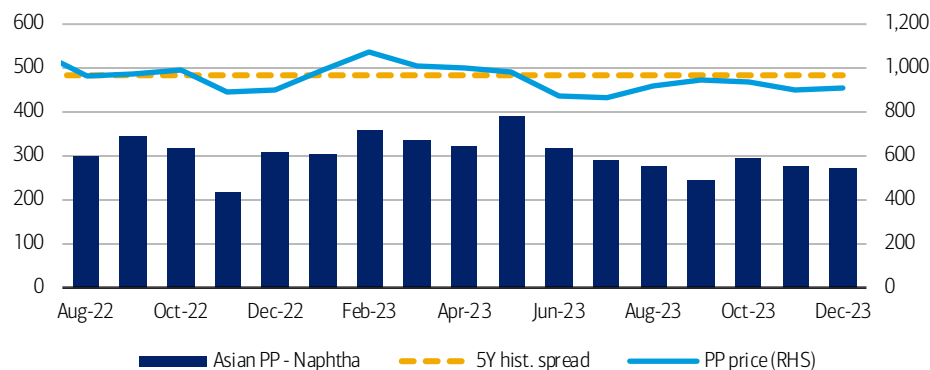
PP spreads were mostly flat in December. Asian and North American spreads were mostly flat MoM, while European were up 2% in the period.

Asian PP-Naphtha spreads were almost flat month-over-month. Polypropylene prices slightly rose 1% MoM to US\$909/ton in December (offset by Naphtha's 1% increase MoM) despite abundant supply and still weak demand. 2024 scenario also seems positive for Asian PP as the Chinese government continued its efforts to boost economy with five major banks lowering their interest rates, which is likely to boost economy (and, as consequence, demand) in the short-term.

Asian PP-Naphtha decreased to US\$274/ton, virtually flat US\$275/ton in November. This figure is well below the 5-year historical of US\$479/ton.

Exhibit 4: Asia PP – Naphtha spread (US\$/ton)

Spreads decreased 6% MoM in November



Source: BofA Global Research, Chemical Market Analytics

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As for the North American market, PP-propylene spread was flat MoM as PP producers remain pressured by high propylene prices amid soft demand. The previous expectations of a price relief in propylene quickly evaporated early in the month when North America's newest propane dehydrogenation (PDH) plant went down unexpectedly early due to a fire at the facility. The plant has experienced multiple start-up issues since its inception in the summer.

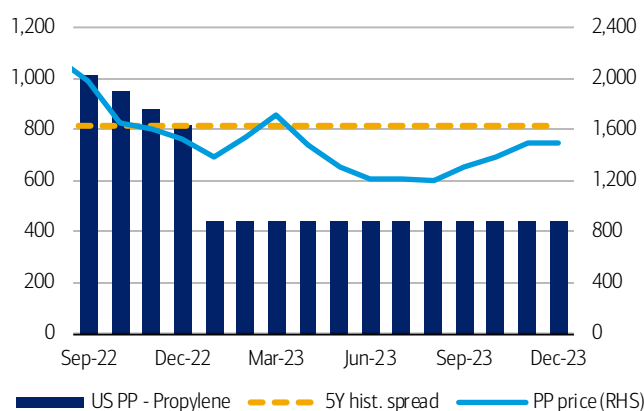
And the situation in North America is unlikely to improve any time soon. According to CMA, heading into 2024, we are entering the worst market conditions since the early 2010s, when plants were being shut down at quite a heavy clip. For 2024, margins are likely to continue pressured given the low operating rates of the industry. On top of that, any expectation of recovery will be limited by the addition of ~300kton capacity addition (45ktons from debottlenecking and 250ktons from a new plant) by the 2H24.

Regarding the European market, spreads widened due to a drop in propylene prices (down 2% MoM) in spite of the decrease of PP prices (down 1% MoM). PP prices were pressured down by low demand in almost all segments, except automotive. Some producers may try to push prices up this year because of pressured margins, however, this will largely depend on a recovery in demand.

US PP-Propylene spreads averaged US\$441/ton in December – virtually flat MoM and still significantly below the 5-year average figure of US\$811/ton. European PP-propylene spreads averaged US\$233/ton in December, +2% vs. US\$228/ton in the previous month and well below the 5-year average of US\$372/ton.

Exhibit 5: US PP – Propylene spread (US\$/ton)

Spreads were flat MoM

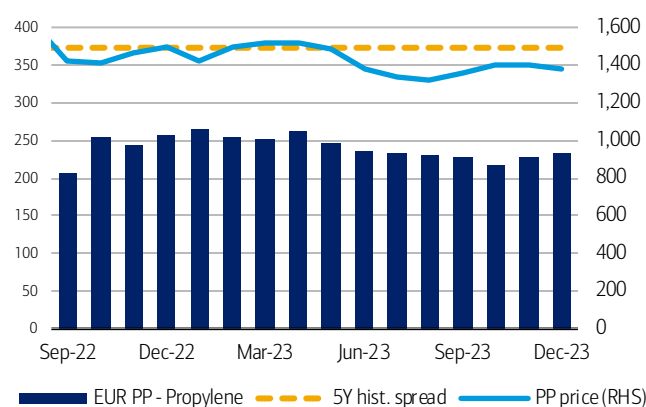


Source: BofA Global Research, Chemical Market Analytics

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Exhibit 6: European PP – Propylene spread (US\$/ton)

Spreads were up 2% MoM



Source: BofA Global Research, Chemical Market Analytics

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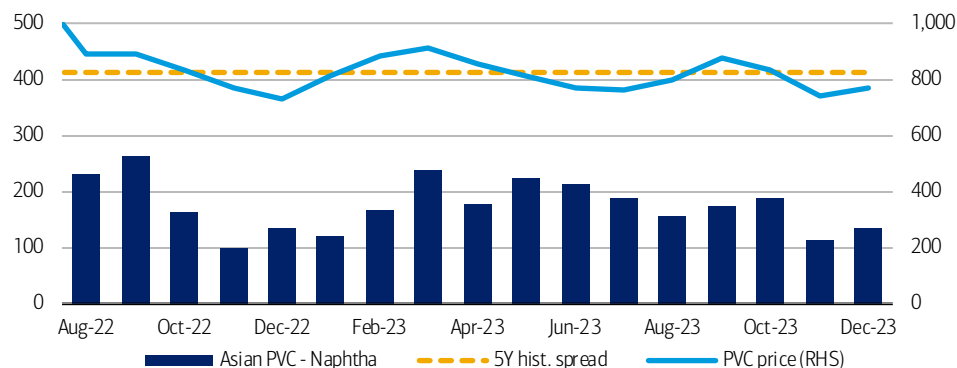
PVC: spreads recovered supported by restocking in India

Asian PVC spreads recovered 21% MoM, after November's 41% fall, mainly due to rebounding PVC prices supported by a restocking trend in India. However, according to CMA this movement lasted for only a few weeks. In January, we do not expect the momentum to be sustained given the still slow construction activity in China and the increase in PVC availability as several producers were close to completing their scheduled maintenance.

Asian PVC-Naphtha spreads were US\$135/ton, 21% recovery vs. US\$112/ton reported in November, which is still way below the historical average of US\$410/ton.

Exhibit 7: Asian PVC – Naphtha spread (US\$/ton)

Spreads were increased 21% in December



Source: BofA Global Research, Chemical Market Analytics

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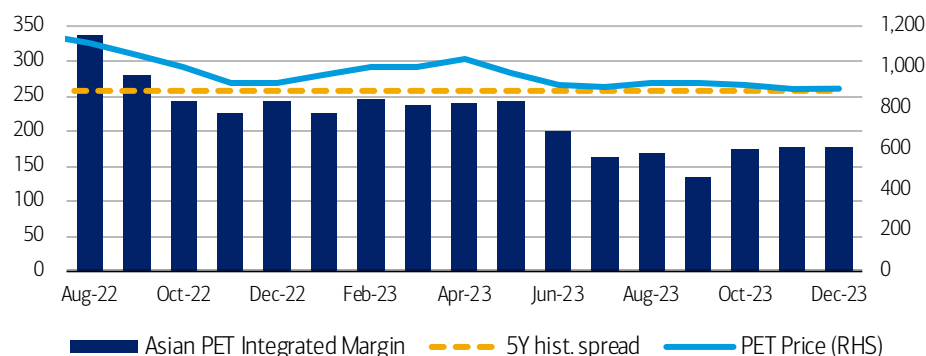
PET: quiet activity in December; flattish int. margins

PET integrated margins were US\$178/ton in December, virtually flat vs. the US\$177/ton in November. Domestic PET prices remained moving sideways amid a slow demand scenario. If compared to the previous months, December activity was quieter, and market participants believe that demand has already bottomed. Some maintenance shutdowns and production cuts happened in China during the month causing PET capacity utilization to fall below 70%. However, lower supply alone may not be enough to rebalance the market as the demand continue slow. According to CMA, feedstock markets and supply demand fundamentals will likely support rising PET prices in the coming quarter.

PET prices were flat MoM (US\$893/ton) along with a still weak demand, resulting in a virtually flat integrated margins, which is still below the 5-year historical figure for PET integrated margin of US\$272/ton.

Exhibit 8: Asian PET Integrated margin (US\$/ton)

Margins virtually flat in December



Source: BofA Global Research, Chemical Market Analytics | PET Integrated margin considers yields 84% of PET margin and 34% of PTA margin, PET margin considers yields of 84% from PTA and 34% of MEG, PTA margin considers yields of 66% of PX

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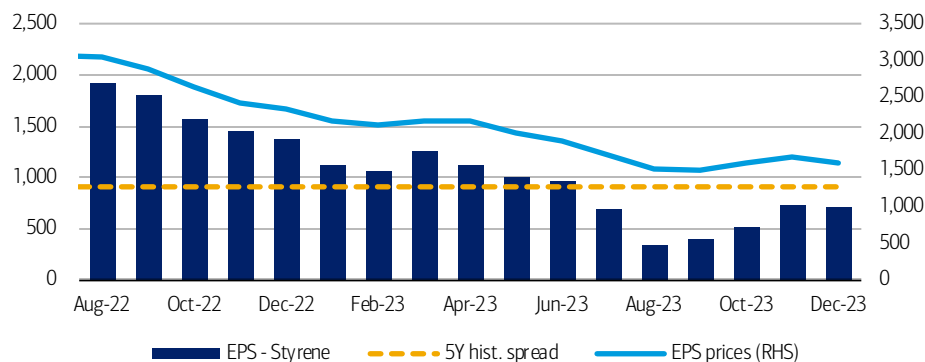
EPS: weaker MoM spreads

In December, US EPS spreads narrowed to US\$703/ton (down 4% MoM), continuing driven by lower EPS prices. EPS declined (down 4% MoM to US\$1,609/ton vs. US\$1,675/ton in November) mainly due to low feedstock cost pressure, but the market is starting to see signs of a reversing trend in January.

Regarding Styrene, raw-material costs remained in a downward trend and, according to CMA, the market expects it to bottom now in January. Domestic demand continued remained steady MoM at low levels. Styrene fell to US\$964/ton in December, a decrease of 4% MoM vs. the US\$1,000/ton recorded in November.

Exhibit 9: EPS – Styrene spread (US\$/ton)

Margins were up 41% vs. October



Source: BofA Global Research, Chemical Market Analytics

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Exhibit 10: Summary of petrochemical prices and spreads performance LTM

Spreads continue low vs. 5-year historical

	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23
US PE – Naphtha	281	307	272	337	383	345	382	301	249	243	265	330	267	235
Average PE price	950	901	962	1,056	1,058	1,023	968	859	822	885	964	975	895	866
Naphtha price	669	594	690	719	675	678	586	558	573	642	699	645	628	631
US PE – Ethane	639	633	768	872	884	878	822	706	586	683	742	766	722	720
Average PE price	938	896	961	1,057	1,062	1,034	974	862	822	883	964	968	889	857
Ethane price	299	263	193	185	178	156	152	155	236	199	222	202	167	137
Asian PP – Naphtha	219	310	305	358	338	321	393	316	292	278	244	293	275	278
PP price	888	904	995	1,077	1,013	999	979	874	865	920	943	938	903	909
US PP – Propylene	882	816	441	441	441	441	441	441	441	441	441	441	441	441
PP price	1,609	1,521	1,389	1,543	1,720	1,477	1,301	1,213	1,213	1,202	1,301	1,389	1,499	1,499
Propylene price	728	705	948	1,102	1,279	1,036	860	772	772	761	860	948	1,058	1,058
EUR PP – Propylene	245	257	266	255	251	262	248	237	233	229	227	218	228	233
PP price	1,468	1,497	1,423	1,493	1,520	1,519	1,480	1,376	1,339	1,320	1,358	1,400	1,397	1,380
Propylene price	1,223	1,239	1,157	1,238	1,269	1,257	1,232	1,139	1,106	1,091	1,131	1,183	1,169	1,146
Asian PVC – Naphtha	101	136	120	166	240	177	224	215	187	158	176	190	112	139
PVC price	770	730	810	885	915	855	810	773	760	800	875	835	740	770
Asian PET Integrated Margin	245	263	238	260	252	257	260	216	177	183	145	189	191	192
PET Price	924	919	963	995	998	1,039	968	907	898	920	926	909	897	893
PTA price	758	726	754	775	791	843	773	752	775	790	809	771	752	740
MEG price	453	476	517	520	510	507	504	465	471	468	481	464	478	496
PX price	979	925	1,015	1,033	1,059	1,128	1,000	989	1,037	1,067	1,131	1,039	1,005	987
EPS Margin	1,452	1,371	1,120	1,062	1,253	1,123	1,000	975	697	339	403	523	736	703
EPS prices	2,425	2,337	2,161	2,116	2,183	2,183	2,006	1,896	1,720	1,521	1,499	1,587	1,675	1,609
Styrene prices	1,035	1,027	1,107	1,121	989	1,127	1,070	980	1,088	1,258	1,166	1,133	1,000	964

Source: BofA Global Research, Chemical Market Analysis

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