

China Plastic Import From U.S. May Drop Due To Tariff

关税将导致中国自美国进口聚烯烃大幅减少

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Abstract 摘要

On April 2, Trump announced that he would impose a 34% "reciprocal tariff" on China. Subsequently, on April 4, China imposed a 34% retaliatory tariff on goods from the U.S., and the intensity of countermeasures was significantly upgraded.

Through the transmission of propane, **the positive impact on PP is more significant**. Currently, the capacity of PDH accounts for more than 20% of that in the PP sector, and the profit has already been under pressure. In the situation where it is difficult to transfer the tariff cost downstream, these plants can only reduce losses by reducing the operating rate or suspending production, and the launch time of subsequent new PDH production capacity is likely to be postponed. The supply and demand pattern of PP may be improved. However, the demand side still remains bearish, and the export of plastic products may face downward pressure.

As for the impact on PE, it is more about the change in the pattern of import source countries. The Middle East and South Korea may fill the share previously held by the U.S.

Bull Risks: Larger-than-expected supply cuts from U.S. retaliation (e.g., PDH shutdowns, delayed capacity). **Bear Risks:** Steeper-than-expected declines in plastic exports due to U.S. tariffs.

4月2日, 特朗普宣布将对华加征34%“对等关税”。随后4月4日, 中国对美商品加征34%报复性关税, 反制力度明显升级。经由丙烷传导, **利多在PP上更显著**。目前PDH产能在PP中占比已超20%, 且利润已经承压。在难以向下转移关税成本的情况下, 这部分装置只能通过降低开工或停产方式减少亏损, 且后续PDH新产能上线时间可能会延后, PP供需格局或迎来改善。不过, 需求端仍偏利空, 塑料制品出口或面临下行压力。对于PE影响更多是进口来源国格局改变, 中东、韩国或填补美国份额。

多头风险: 塑料制品出口减量超预期; **空头风险:** 报复性关税下炼厂供应减量超预期。

Content 目录

1. Status of Tariff Disputes 关税博弈进展	3
2. Impact on Polyolefins 对于聚烯烃影响	3
2.1 Direct Impact 直接影响	3
2.2 Indirect Impact 间接影响	5
2.3 Pressure on Plastic Exports 塑料制品出口承压	6
3. Summary 总结	7

1. Status of Tariff Disputes 关税博弈进展

On April 2 (local time), the White House announced that:

Baseline Tariffs: A 10% tariff on all countries and regions, effective at 00:01 EST on April 5.

Reciprocal Tariffs: Higher, differentiated tariffs targeting countries with the largest trade deficits with the U.S., effective at 00:01 EST on April 9 (12:01 PM Beijing time, April 9).

China-Specific Tariff Measures: An additional 34% "reciprocal tariff" will be imposed on Chinese goods, on top of existing 20% tariffs. This excludes tariffs imposed during Biden's term or Trump's first presidency. The de minimis exemption (duty-free policy for imports under \$800) for China and Hong Kong will be abolished.

On April 4 (Beijing time), China announced a series of countermeasures. Compared with the first two rounds of countermeasures this year, the intensity of China's countermeasures has been significantly upgraded this time. In terms of the proportion of goods covered by tariffs, it is on an equal footing with the U.S.. The depth of export control has been further enhanced, and the types of countermeasures are also more diverse than before. The Tariff Commission of the State Council announced that starting from 00:01 on April 10, 2025, an additional 34% tariff will be imposed on all imported goods originating in the U.S. on the basis of the currently applicable tariff rates.

当地时间4月2日，白宫声明称：**(1) 基准关税**，特朗普将对所有国家和地区征收10%的“基准关税”，该关税将于美国东部时间4月5日凌晨0时01分生效；**(2) 对等关税**，特朗普将对美国贸易逆差最大的国家和地区征收更高的差异化“对等关税”，该关税将于美国东部时间4月9日凌晨0时01分生效。**(3) 对华关税**，在此前20%关税的基础上，特朗普宣布将对华加征34%“对等关税”，且不包含拜登任内或特朗普第一任期内所加的其他关税，并将取消小额免税政策。

4月4日中国公布一系列反制措施，力度明显升级。在关税覆盖商品比例上和美国做到了对等，出口管制的深度进一步提升，同时反制措施的种类也较此前更为丰富。国务院关税税则委员会公告称，自2025年4月10日12时01分起，对原产于美国的所有进口商品，在现行适用关税税率基础上加征34%关税。

2. Impact on Polyolefins 对于聚烯烃影响

2.1 Direct Impact 直接影响

The 34% retaliatory tariff will have a significantly larger direct impact on PE than PP. In 2024, China imported 2.4 million tons of PE from the U.S., accounting for 17% of total PE imports. China imported 39,400 tons of PP from the U.S., representing 1.1% of total PP imports. Meanwhile, The import dependence degree of PE reaches 34%, which is significantly higher than that of PP, which is 10%.

If the tariffs are implemented, the U.S. may drop out of the top five sources of China's PE imports in 2025. From 2018 to 2019, the proportion of PE imported by China from the U.S. in the total import volume was less than 6%, and the U.S. dropped out of the top five sources of China's PE imports. In 2024, the U.S. was the largest source of China's PE imports, accounting for about 17%. Considering that the current additional 34% tariff is higher than that during the trade war in 2018, the impact on the import pattern may be greater.

It is difficult for the price of PE to be significantly boosted directly. (1) The growth rate of new PE production capacity in 2025 is still expected to be higher than 13%, and there is still an oversupply of PE in China. (2) As a solid and stable chemical product, PE has production capacity distributed in the

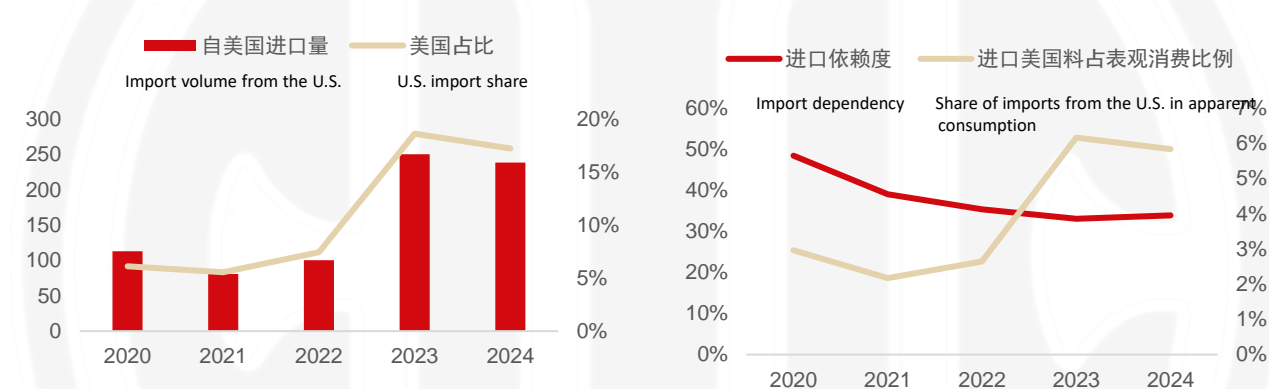
Middle East and Northeast Asia regions. (3) Currently, the PE import window has been closed after the price decline. Therefore, imposing additional import tariffs is unlikely to have a substantial impact on PE.

中国对美国加征 34%报复性关税，对于 PE 直接影响远大于 PP。2024 年，中国自美国进口 PE 约 240 万吨，占总进口量约 17%。2024 年，中国自美国进口 PP 约 3.94 万吨，占中国总进口量约 1.1%。同时，PE 进口依赖度达 34%，明显高于 PP 的 10%。

若反制措施落地，2025 年美国或跌出中国聚乙烯前五大进口来源国。2018 年-2019 年，中国自美国进口聚乙烯占整体进口量比例低于 6%，美国跌出中国聚乙烯进口前五大来源国。2024 年，美国是中国聚乙烯进口第一大来源国，占比约 17%。考虑目前加征 34%关税大于 2018 年贸易战阶段，因此对于进口格局的影响程度或更大。

PE 价格难以直接受到明显提振。(1) 2025 年 PE 新产能增速预期仍高于 13%，PE 在中国仍供过于求。(2) PE 作为固体稳定态化工品，在中东、东北亚地区均有产能分布。(3) 目前 PE 进口窗口在价格下跌后已经关闭，因此加征进口关税难对 PE 有实质性影响。

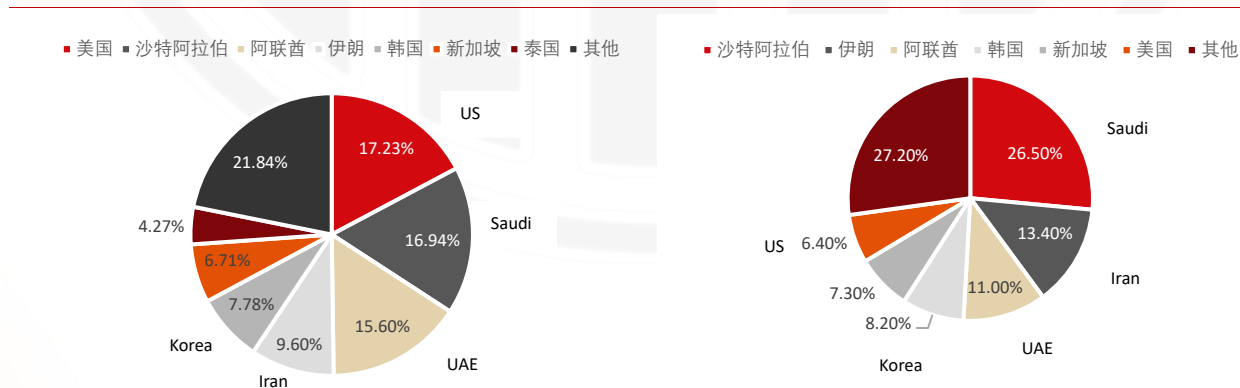
图表1: U.S. Share in China's PE Imports (17%) **图表2: PE Import Dependency (34%)**
PE 美国进口占比 17% **PE 进口依赖度约 34%**



Sources: Wind, CITIC Futures

Sources: Wind, CITIC Futures

图表3: 2024 PE Import Sources
2024 年 PE 进口来源国



Sources: Wind, CITIC Futures

Sources: Wind, CITIC Futures

2.2 Indirect Impact 间接影响

The U.S. is a critical source of China's ethane and propane Imports. In 2024, China imported 5.56 million tons of Ethane, 99.5% of which from the U.S. (5.53 million tons). The amount of propane Imported in 2024 was 29.31 million tons in total. 59% from the U.S. (17.31 million tons).

High Import Dependency for Olefin Feedstocks: (1) Ethane: China ethane production is limited to northwest China (e.g., Tarim Petrochemical, Changqing Petrochemical). Coastal plants (e.g., Satellite Petrochemical, Wanhua Chemical, Huatai Shenfu) rely heavily on U.S. ethane imports. The 34% retaliatory tariff will sharply raise costs for these facilities. (2) Propane: Most PDH (propane dehydrogenation) units source propane from the U.S. and Middle East. **The 34% tariff will significantly increase feedstock costs, likely forcing marginal PDH units to reduce operating rates or shut down.**

Price Impact: Stronger Bullish Catalysts for PP

1. Limited Impact on PE:

- (1) Ethane-based PE accounts for ~10% of China's PE production.
- (2) Tarim and Changqing use domestic ethane (unaffected by tariffs).
- (3) Coastal plants (e.g., Huatai Shenfu, Wanhua, Satellite) contribute ~6% of PE capacity. These units had strong pre-tariff margins and long-term supply contracts, minimizing operational disruptions.
- (4) PE's 2025 Capacity Expansion: Mostly oil-based crackers; ethane-driven cost pressures will have minimal impact on PE's supply-demand balance.

2. PP's Bullish Outlook:

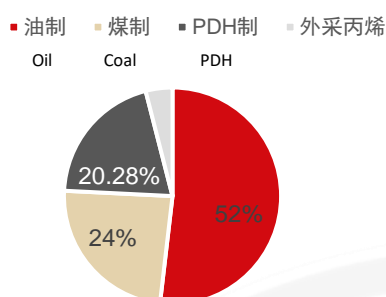
- (1) PDH Dominance: PDH units account for >20% of China's PP capacity.
- (2) Margin Pressures: PDH units already operate at thin margins. The 34% tariff will make it impossible to pass higher propane costs downstream.
- (4) Supply Reductions: Likely outcomes include: ①Operating rate cuts or shutdowns at marginal PDH units. ②Delays in new PDH projects (e.g., Zhongjing Petrochemical's 1.5 million-ton PDH plant).
- (5) Supply-Demand Improvement: Reduced PDH output and delayed expansions could tighten PP supply, supporting prices.

美国是中国乙丙烷进口的重要来源国。2024年，中国乙烷进口量556万吨，其中自美国进口553万吨，占比99.5%。2024年，中国丙烷进口量2931万吨，其中1731万吨来自美国，占比59%。

乙丙烷作为聚烯烃上游生产原料，中国自有资源较为匮乏，进口依赖度高。乙烷方面，中国自有乙烷资源多在西北地区，如塔里木石化、长庆石化具有自有气田资源。而东部沿海地区装置如卫星石化、万华化学、华泰盛富则依赖于美国进口乙烷资源。因此此轮加征的34%报复性关税对于此类企业存在明显的成本抬升影响。丙烷方面，中国PDH企业所用丙烷资源除少部分采用炼厂气提纯以外，均来自美国与中东地区。本轮加征34%报复性关税将导致丙烷原料成本大幅抬升，或致部分PDH边际装置减产乃至停车。

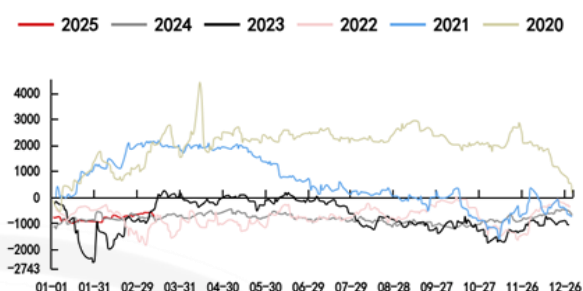
经由乙丙烷传导的原料端间接影响对于PP提振作用或更为显著：(1)目前PE乙烷制占比约10%，其中长庆石化与塔里木石化采用自有气田资源生产，实质受影响的华泰盛富、万华、卫星占比约6%，而这部分装置在加征关税前均有良好利润，且多签订长约，因此实质扰动或有限。同时，2025年PE新增投产多为油头装置，气头利润承压对于PE供需格局改观作用十分有限。(2)PP或有较强提振。目前国内PDH装置在PP产能占比已超20%，2025年仍有中景石化150万吨PDH装置上马预期。目前国内PDH装置生产利润已长期承压。加征34%关税后，PDH装置或难以将关税增加成本向下转移，降开工乃至停产或是大概率事件，且部分PDH待上马装置或有较大动力延期。

图表5: PDH's Share in PP Production (20%+) PDH 装置在 PP 产能中占比超 20%



Sources: Wind, CITIC Futures

图表6: PDH Suffering Low Profit PDH 装置低利润



Sources: Wind, CITIC Futures

2.3 Pressure on Plastic Exports 塑料制品出口承压

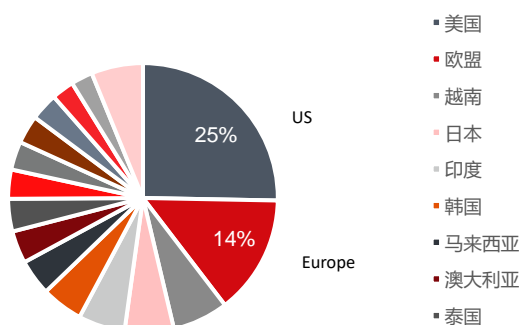
The U.S. remains the largest destination for China's plastic exports, accounting for 25% of total plastic product exports. Key markets include Europe, Southeast Asia, and the U.S.. The plastic industry's average profit margin is 7%, leaving little room to absorb tariff costs. Low-margin exporters are particularly vulnerable to U.S. tariff impacts.

Affected by the additional tariffs imposed by the U.S. and the weakening of overseas inventory replenishment efforts, China's export growth rate from January to February this year was lower than market expectations, and the export growth rate of labor-intensive products declined significantly. On February 4, 2025, the first round of 10% tariffs imposed by the U.S. on China began to take effect. High-frequency data shows that since the tariffs came into effect, the weekly change of the comprehensive index of China's Export Container Freight Index has been negative.

根据海关总署数据,中国塑料制品出口主要目的地集中在欧美和东南亚地区,其中美国仍为最大出口目的国,在整体塑料制品出口量中占比约 25%。塑料制品产业目前利润已偏承压,中枢利润率约在 7%附近,在美关税压制下,低利润率产业难以通过让利缓解关税冲击,因此受影响程度或更为明显。

受美国加征关税以及海外补库力度减弱影响,今年 1-2 月中国出口增速低于市场预期,劳动密集型产品出口增速下滑较多。2025 年 2 月 4 日,美国对中国加征的第一轮 10%关税已经开始落地生效。高频数据显示,自关税生效以来,中国出口集装箱运价指数综合指数周环比均为负数。

图表7: China Plastic Exports by Destination (U.S. 25%) 中国塑料制品出口情况



Sources: Wind, CITIC Futures

3. Summary 总结

The ongoing tariff tensions between the U.S. and China are creating significant near-term volatility for polyolefins, with divergent impacts on PP and PE:

1. Bullish Catalysts for PP via Propane Cost Transmission

PDH Dominance: PDH units account for >20% of China's PP capacity, with margins already under severe pressure.

Operational Cuts: Unable to pass tariff-driven propane cost increases downstream, PDH units may reduce operating rates or shut down, tightening PP supply.

Delayed Expansions: New PDH projects (e.g., Zhongjing Petrochemical's 1.5 million-ton plant) face high risks of delays, further improving PP's supply-demand balance.

2. Bearish Demand-Side Pressure on Plastic Exports

U.S. Tariff Headwinds: With the U.S. absorbing 25% of China's plastic exports, tariffs threaten to compress already thin industry margins (~7%).

3. PE Impact: Import Source Restructuring

Shift from U.S. Suppliers: Middle Eastern (e.g., Saudi Arabia) and South Korean producers are poised to replace the 17% U.S. share in China's PE imports.

However, there are still certain variables in the tariff game, and it cannot be ruled out that there may be changes in the course of the game.

中美关税博弈短期对于聚烯烃扰动明显:

(1) 利多在 PP 上更显著, 经由丙烷传导。由于目前 PDH 产能在 PP 中占比已超 20%, 且利润已经承压。在难以向下转移关税成本的情况下, 这部分装置只能通过降低开工或停产方式减少原材料成本上涨导致的经营亏损, 且后续 PDH 新产能上线时间存较强延后预期。

(2) 需求端偏利空, 塑料制品出口端仍有承压预期。

(3) 对于 PE 影响更多是进口来源国格局改变, 中东、韩国或填补美国份额。

但关税博弈仍有一定变数, 仍不排除博弈变数可能。

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