



中性

泰和新材 (002254.SZ)

未来将大力投资；等待氨纶市场复苏迹象，首次覆盖评为中性 (摘要)

002254.SZ 12个月目标价格: Rmb10.25 股价: Rmb10.30 下跌空间: 0.5%

中国80-90%的高端芳纶纤维依靠进口。芳纶纤维是用于光网络保护、绝缘以及军用防护用具的一种基础材料。在芳纶市场上，国内供应量所占份额有望上升，我们认为泰和新材（国内领先的芳纶纤维生产商和主要的氨纶生产商）将成为受益者。

我们看好泰和新材的高增长、高利润率芳纶纤维业务，但预计氨纶市场至少直到2020年都将持续供应过剩。鉴于泰和新材已经进入了大力投入资本支出的阶段，我们预计公司负债率将上升，但2019-21年盈利年均复合增速将高达28%。

我们首次覆盖泰和新材并评为中性，要点如下：

高端芳纶纤维业务占比有利

2018年芳纶纤维在泰和新材毛利中占比91%，在收入中占比42%。公司计划到2022年将产能扩大至当前的三倍，我们预计今后将出现明显的进口替代现象，一系列各种应用领域中也会出现新的需求。

等待氨纶市场复苏迹象

氨纶在泰和新材2018年毛利中占比7%，但在收入中占比57%，广泛应用于纺织服装领域。自2014-15年以来氨纶市场一直处于供应过剩状态，价差降至接近盈亏平衡点。随着市场上出现新增氨纶供应，我们预计最早直到2020年才会出现复苏。我们认为，从利润率和价差来看，2019年对于氨纶而言形势尤为严峻。

我们基于部分加总估值法的12个月目标价格为人民币10.25元，与当前股价基本持平，因此我们对该股评级为中性。

* 全文翻译随后提供

朱金巧 (分析师)

执业证书编号:S1420518030001
+86(21)2401-8935 | marcus.chu@ghsl.cn
北京高华证券有限责任公司

主要数据

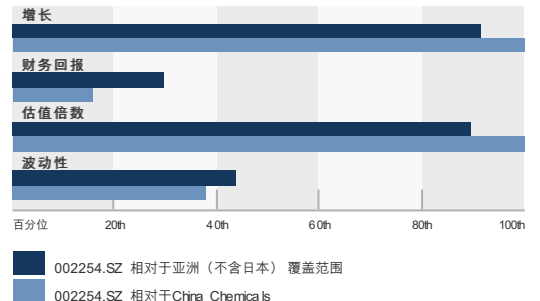
市值: Rmb6.3bn / \$913.7mn
企业价值: Rmb7.4bn / \$1.1bn
3个月日均成交量: Rmb54.9mn / \$8.0mn
中国
China Chemicals
并购概率: 3
租赁是否计入净负债和企业价值: No

预测

	12/18	12/19 E	12/20 E	12/21 E
主营业务收入 (Rmb mn)	2,172.5	2,657.5	3,088.8	3,537.1
EBITDA (Rmb mn)	341.0	445.7	646.3	930.1
每股盈利 (Rmb)	0.26	0.31	0.41	0.56
市盈率 (X)	45.2	32.7	25.0	18.5
市净率 (X)	3.3	2.7	2.5	2.2
股息收益率 (%)	0.4	0.5	0.6	0.8
净负债/EBITDA (X) (剔除租赁)	(1.0)	1.8	3.4	2.9
CROCI (%)	7.3	6.5	8.3	10.0
自由现金流收益率 (%)	(3.0)	(16.7)	(21.3)	(5.8)

	3/19	6/19 E	9/19 E	12/19 E
每股盈利 (Rmb)	0.07	0.12	0.09	0.05

要素概要



资料来源：公司数据、高盛研究预测

北京高华证券有限责任公司及其关联机构与其研究报告所分析的企业存在业务关系，并且继续寻求发展这些关系。因此，投资者应当考虑到本公司可能存在可能影响本报告客观性的利益冲突，不应视本报告为作出投资决策的唯一因素。有关分析师的申明和其他重要信息，见信息披露附录，或请与您的投资代表联系。

中性

泰和新材 (002254.SZ)

评级自2019年8月1日

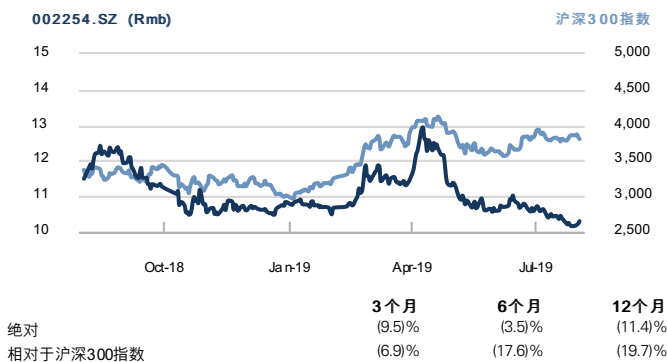
比率 and 估值

	12/18	12/19 E	12/20E	12/21E
市盈率 (X)	45.2	32.7	25.0	18.5
市净率 (X)	3.3	2.7	2.5	2.2
自由现金流收益率 (%)	(3.0)	(16.7)	(21.3)	(5.8)
EV/EBITDAR (X)	20.6	16.6	13.7	10.0
EV/EBITDA (X) (剔除租赁)	20.6	16.6	13.7	10.0
CROCI (%)	7.3	6.5	8.3	10.0
净资产回报率 (%)	7.5	8.6	10.4	12.7
净负债/股东权益 (%)	(14.1)	30.0	78.5	85.0
净负债/权益 (%) (剔除租赁)	(14.1)	30.0	78.5	85.0
利息保障倍数 (X)	25.9	13.5	4.4	3.6
存货销售天数	66.3	73.5	65.0	61.2
应收账款周转天数	71.6	68.8	70.5	71.0
应付账款周转天数	86.4	99.6	103.9	106.0
杜邦净资产回报率 (%)	6.4	7.3	8.9	10.8
周转率 (X)	0.6	0.5	0.4	0.5
杠杆比率 (X)	1.5	2.0	2.4	2.5
总现金投资, 名义 (剔除现金) (Rmb)	4,433.4	5,859.7	7,766.9	8,859.5
平均已动用资本 (Rmb)	1,750.8	2,758.4	4,235.1	5,426.4
每股净资产 (Rmb)	3.53	3.79	4.14	4.62

增长率和利润率 (%)

	12/18	12/19 E	12/20E	12/21E
主营业务收入增长率	39.7	22.3	16.2	14.5
EBITDA增长率	37.3	30.7	45.0	43.9
每股盈利增长	56.3	23.0	30.8	34.9
每股股息增速	0.0	0.0	23.6	34.9
EBIT利润率	6.0	7.9	11.1	14.4
EBITDA利润率	15.7	16.8	20.9	26.3
净利润率	7.2	7.2	8.1	9.6

股价走势图



损益表 (Rmb mn)

	12/18	12/19 E	12/20E	12/21E
主营业务收入	2,172.5	2,657.5	3,088.8	3,537.1
主营业务成本	(1,586.1)	(1,911.6)	(2,106.7)	(2,223.1)
销售、一般及管理费用	(226.4)	(277.0)	(308.9)	(353.0)
研发费用	-	-	-	-
其它营业收入/(费用)	(19.0)	(23.2)	(27.0)	(30.9)
EBITDA	341.0	445.7	646.3	930.1
折旧和摊销	(210.1)	(235.6)	(304.7)	(421.7)
EBIT	130.9	210.0	341.6	508.4
净利息收入/(支出)	1.5	(12.0)	(73.8)	(139.2)
联营公司损益	2.4	2.4	2.4	2.4
税前利润	157.8	220.5	290.2	391.6
税项拨备	(7.9)	(26.2)	(36.0)	(48.7)
少数股东损益	6.5	(1.9)	(2.5)	(3.4)
优先股息	-	-	-	-
非经常性项目前净利润	156.4	192.4	251.7	339.5
税后非经常性损益	-	-	-	-
非经常性项目后净利润	156.4	192.4	251.7	339.5
EPS (基本, 扣非前) (Rmb)	0.26	0.31	0.41	0.56
EPS (摊薄, 扣非前) (Rmb)	0.26	0.31	0.41	0.56
EPS (基本, 扣非后) (Rmb)	0.26	0.31	0.41	0.56
EPS (摊薄, 扣非后) (Rmb)	0.26	0.31	0.41	0.56
每股股息 (Rmb)	0.05	0.05	0.06	0.08
股息支付率 (%)	19.5	15.9	15.0	15.0

资产负债表 (Rmb mn)

	12/18	12/19 E	12/20E	12/21E
现金及等价物	358.6	426.4	385.5	452.2
应收账款	450.9	551.5	641.0	734.1
存货	546.4	523.7	577.2	609.1
其它流动资产	668.1	668.1	668.1	668.1
流动资产	2,024.0	2,169.7	2,271.8	2,463.5
固定资产净额	1,530.7	2,740.8	4,258.8	4,839.8
无形资产净额	67.4	64.8	62.1	59.4
投资总额	70.4	72.8	75.2	77.7
其它长期资产	102.2	202.2	252.2	302.2
资产合计	3,794.8	5,250.3	6,920.1	7,742.5
应付账款	473.2	570.3	628.5	663.2
短期债务	11.7	1,211.7	2,611.7	3,111.7
短期租赁负债	-	-	-	-
其它流动负债	798.9	798.9	798.9	798.9
流动负债	1,283.7	2,580.9	4,039.1	4,573.8
长期债务	-	-	-	-
长期租赁负债	-	-	-	-
其它长期负债	53.7	48.4	43.5	39.2
长期负债	53.7	48.4	43.5	39.2
负债合计	1,337.5	2,629.2	4,082.6	4,613.0
优先股	-	-	-	-
普通股权益	2,155.8	2,317.6	2,531.5	2,820.2
少数股东权益	301.5	303.4	306.0	309.4
负债及股东权益合计	3,794.8	5,250.3	6,920.1	7,742.5
调整后净负债	(346.9)	785.3	2,226.2	2,659.5

现金流量表 (Rmb mn)

	12/18	12/19 E	12/20E	12/21E
净利润	156.4	192.4	251.7	339.5
折旧及摊销加回	210.1	235.6	304.7	421.7
少数股东权益加回	(6.5)	1.9	2.5	3.4
运营资本增减净额	(195.4)	19.1	(84.8)	(90.2)
其它经营性现金流	(66.1)	(107.8)	(57.3)	(56.8)
经营活动产生的现金流	98.4	341.3	416.9	617.7
资本开支	(321.3)	(1,443.0)	(1,820.0)	(1,000.0)
收购	(828.2)	-	-	-
剥离	464.2	-	-	-
其它	(7.0)	-	-	-
投资活动产生的现金流	(692.3)	(1,443.0)	(1,820.0)	(1,000.0)
偿还租赁负债	-	-	-	-
支付的股息 (普通股和优先股)	(31.3)	(30.5)	(37.8)	(50.9)
借款增减	(7.0)	1,200.0	1,400.0	500.0
其它融资性现金流	151.5	0.0	0.0	0.0
筹资活动产生的现金流	113.2	1,169.5	1,362.2	449.1
总现金流	(480.7)	67.7	(40.9)	66.7
自由现金流	(222.9)	(1,101.7)	(1,403.1)	(382.3)

资料来源: 公司数据、高盛研究预测

目录

Our thesis in charts	4
PM summary: Heavy capex cycle in aramid fiber and spandex	5
Favorable aramid fiber exposure	8
Spandex over-supply could persist until 2020	11
Financials and valuation	13
Key risks	18
M&A framework	19
Appendix	20
信息披露附录	21

Our thesis in charts

图表 1: PPTA aramid fiber dominated by US and Japan players

Core aramid fiber projects globally, 2018

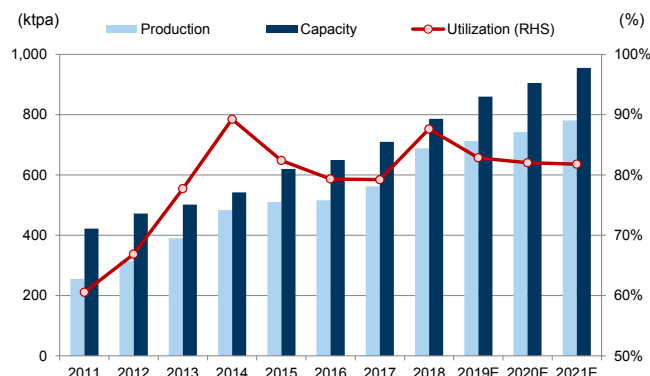
Core PPTA projects	Location	Product	Capacity (ton)
DowDupont	US	Kevlar	24,500
DowDupont	US	Kevlar	7,000
DowDupont	Japan	Kevlar	5,000
Teijin	Japan	Technora	3,000
Teijin	Netherland	Twaron	23,000
Yantai Tayho	China	Taparan	1,500
Kolon Industries	Korea	Heracron	2,600
Khimvolokno	Russia	Terlon/Pycap	2,000

Core PMIA projects	Location	Product	Capacity (ton)
DowDupont	US	Nomex	10,000
DowDupont	Spain	Nomex	3,900
Yantai Tayho	China	Tametar	7,000
X-Fiber New Material	China	N/A	5,000
Teijin	Japan	Conex	2,700
Charming	China	N/A	1,500

资料来源: CPCIA

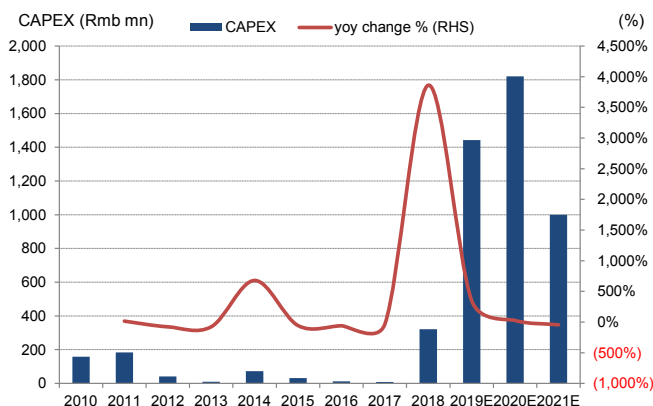
图表 3: We forecast spandex utilization to remain weak into 2020

Spandex China demand supply



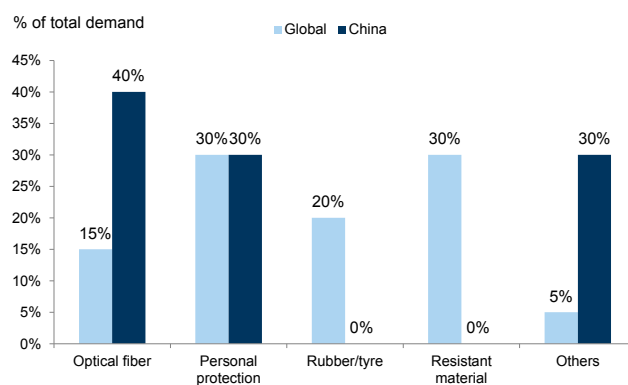
资料来源: CCFEI, 高华证券研究

图表 5: Current levels of material capex spending have not been seen in the past



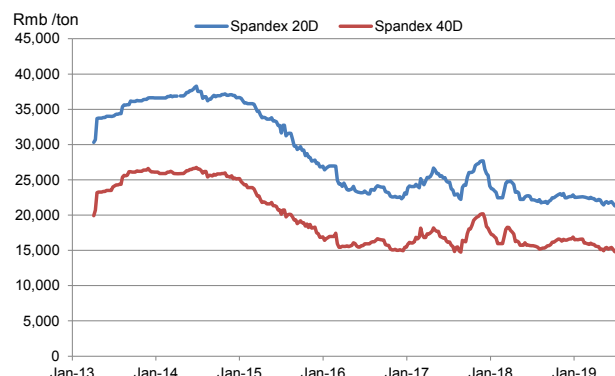
资料来源: 公司数据, Gao Hua Securities Research

图表 2: China's large exposure variance vs. global in PPTA PPTA demand application, 2018



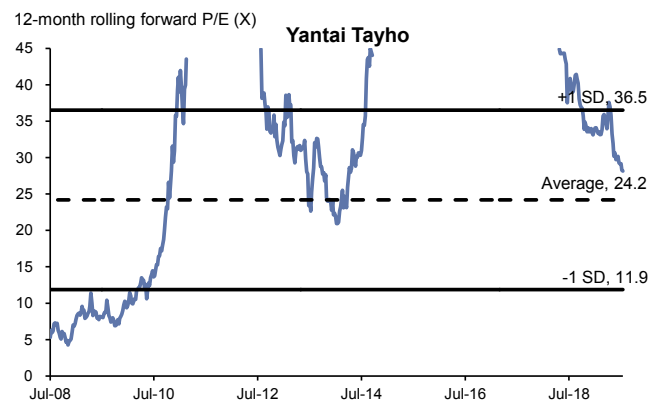
资料来源: CPCIA

图表 4: Spandex price spread has narrowed slightly year-to-date
Spandex price spread vs. PTMEG and MDI (feedstock)



资料来源: 万得

图表 6: Tayho is trading above historical average P/E



资料来源: 公司数据, Datastream, Gao Hua Securities Research

PM summary: Heavy capex cycle in aramid fiber and spandex

Yantai Tayho (002254.SZ) was established in 1986 and listed on the Shenzhen stock exchange in 2008, focusing on spandex and aramid fiber sales and production. As an SOE, the Shandong provincial State-owned Assets Supervision and Administration Commission (SASAC) has ultimate control of the company. Tayho is China's leading aramid fiber producer by capacity and a major manufacturer of spandex. As of FY2018, Yantai Tayho has 45,000 tons of spandex capacity (6th globally, 5th in China), 7,000 tons of aramid fiber PMIA (2nd globally, 1st in China), and 1,500 tons of high-end aramid fiber PPTA (5th globally, 1st in China). The company has two production hubs, one in Shandong Yantai and another in Ningxia. In March 2018, Tayho announced meaningful capacity addition plans for both hubs from now until 2022. The Shandong Yantai hub was designed for high-end spandex and aramid fiber production. The Ningxia hub was designed for low-end basic spandex. The company's three main product brands are Newstar (Spandex); Tametar (PMIA; flame, high-temperature, radiation resistant fiber) and Tapanan (PPTA; high-strength material, 5-6X stronger than steel wire).

Long-term goal to become the leading aramid fiber and spandex producer: Yantai Tayho outlined its 2018-22 Five-year development plan in early 2018. The company targets to spend a total of Rmb7bn to complete all necessary plant relocation and capacity expansion. Its capacity will increase from now 75,000/1,500/7,000ton to 90,000/12,000/12,000ton for spandex/PPTA/PMIA. The company's announced capacity expansion plans are so far on track with its guidance. Tayho estimates that if all the designed capacity is built and reaches target utilization by 2022, the company can achieve sales revenue of Rmb5.88bn (vs. 2018 Rmb2.2bn) and net profit of 1.18bn (vs. 2018 Rmb156mn) implying a net profit margin of 20% (vs. 2018 7%). The company aims to manage an overall debt-to-asset ratio of about 50%. Tayho has stated it will finance its Rmb7bn in investment through equity issuance (Rmb1-2bn), bank loans (Rmb2-4bn), and self-finance or through JV (Rmb2.5-3.5bn).

图表 7: Summary of capacity exposure

(tpa unless otherwise specified)

		Location	2018 capacity	Announced addition	Commission time	Potential closure	Target by 2022
Spandex	氨纶	Yantai	45,000	15,000	4Q20	45,000	30,000
Spandex	氨纶	Ningxia	30,000	30,000	4Q20	0	60,000
Aramid fiber - PPTA	对位芳纶	Yantai/Ningxia	1,500	3,000	1Q20	1,500	12,000
Aramid fiber - PMIA	间位芳纶	Yantai	7,000	8,000	3Q20	7,000	12,000

资料来源: 公司数据, 高华证券研究

Key driver 1: Aramid fiber (91% of gross profit, 42% of revenue as of FY2018)

Product details: Aramid fiber possesses numerous useful and commercial properties and is recognized as one of the top high-performance synthetic fibers according to the industry associations. It has high strength and modulus, is lightweight, and resistant to heat and corrosion. However, aramid fiber is vulnerable to moisture and long duration UV light (degradable). The main feedstock of aramid fiber includes mostly chemical intermediates (IPC, TPC, MPD, PPD) which originate mainly from benzene, ammonia, nitrogen, and chlorine. The main applications for aramid fiber include optical fiber protection, electricity insulation paper, personal protection (ballistic helmets, flame resistant gloves, bullet-proof body armor), auto parts, etc. China is still 80% import dependent on high-end aramid fiber PPTA from other countries.

Global comparison: Aramid fiber production globally, in particular the high-end fibers, is dominated by the US and Japan. The US began R&D and production in the 1960s, followed by Japan in the 1980s. Aramid fiber production involves a series of chemical reactions and procedures (e.g., polymerization, neutralization, dissolution). The leading global players include Dow Dupont (US) and Teijin (Japan). There are some smaller scale suppliers in Russia and Korea. Compared to international suppliers, Yantai Tayho's aramid fiber, according to company management, is less white in color (partly due to more oxidation) and has lower stability in the production process (i.e., consistency in production quality). However, Tayho's aramid fiber has certain relatively superior properties, e.g., better heat resistance and strength. Management thinks the relative strength advantage of its products lies in the flexibility of its production process and its tailor-made services.

Key driver 2: Spandex (7% of gross profit but 57% of revenue)

Product details: Spandex is lightweight material with moderate stretch and elasticity, but poor strength. The latest ASP is about Rmb30,000/ton for 40D (density) and Rmb37,000/ton for 20D, generally higher than the other types of clothing fibers. Spandex is mainly used in skin-tight garments, such as sportswear, bodysuits, and underwear. The main feedstocks are PTMEG (originates from natural gas) and MDI (based on benzene). These contribute to about 70% of the total production cost with the rest being energy (electricity and steam).

Global comparison: The global market for spandex developed in 1959 and was led by the US and Japan. China began spandex production in 1989 and accelerated capacity addition in 2000. Spandex capacity in China grew from 8% of global capacity in 2000 to 45% in 2005, and 70% in 2018. China has become the main spandex supplier globally, with 30+ companies comprising a fairly fragmented market. The spandex market has been oversupplied since 2015 when demand growth failed to absorb the additional supply produced during 2010-14 (13% CAGR).

Valuation

Our 12-month target price of Rmb10.25/sh uses a SOTP methodology in which we apply earnings multiples for the aramid fiber and spandex businesses to a simple average of 2020/2021E net income, discounted back by one year using a discount rate of 10% (Tayho's estimated WACC). For the aramid fiber business, we apply 25X 1-yr fwd P/E which compares with a 28% EPS CAGR for 2018-21E. For spandex, we apply 10X 1-yr fwd P/E, in line with the average multiple for A-share listed spandex peers. At 25X 1yr fwd P/E, Tayho is trading above historical average P/E of 24.2X since listing in 2008. Our 12m TP of Rmb10.25/sh is roughly in line with the current share price, and we therefore rate the shares Neutral.

Risks

Key risks include: 1) favorable/unfavorable spandex product margins; 2) project execution (potential delays); 3) scheduled shut-downs of old units and new-plant relocation leading to earnings uncertainty; 4) operational risks (toxic/explosive chemicals); and 5) financing risks (new project funding).

Favorable aramid fiber exposure

High-end aramid fiber application still in early stages of growth: The high-end aramid fiber PPTA, with its high strength, high modulus, and light weight, is mainly used in relatively complex applications such as personal protection (flame resistant gloves, ballistic helmets, bullet proof body armor), optical network protection, and aerospace materials. Based on our latest discussion with industry consultants, the aramid fiber market is still growing at a decent rate, e.g., 10%+ yoy for PPTA consumption volume growth, in China and globally. In addition to the applications noted above, a wide range of potential aramid fiber applications exists in industrial production (filtering material), autos parts, EV batteries, etc. Given the number of modern applications for aramid fiber, we believe the current industry demand growth trends of about 10%-20% yoy are sustainable alongside China's increasing penetration/participation in high-end PPTA supply.

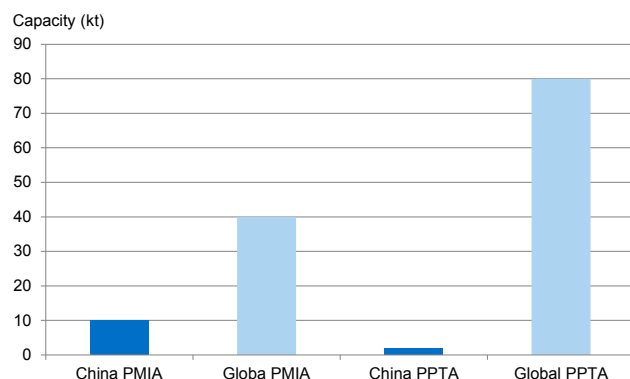
Resolving China's high import dependence: The high-end aramid fiber market has been dominated by DowDupont and Japan's Teijin, with high barriers to entry. Meanwhile, a majority of China's PPTA supply now comes from imports (80-90%). We think these dynamics are positive for Tayho given its exposure to aramid fiber, its strong value-added products, and the untapped demand potential in China and globally. In particular, we think China aramid fiber demand growth potential is generally supply constrained. For instance, according to Tayho, there have been restrictions placed on aramid fiber material exports to China given its use for defense purposes such as bullet-proof gear and ballistic helmets. We believe the widening range of possible aramid fiber applications and the need for China to bring down its import dependence bodes well for the growth of China's own domestic aramid fiber supply and positions Tayho favorably.

Solid operating performance in aramid fiber: Yantai Tayho began R&D in aramid fiber PMIA in 2000, with production starting in 2004. The company has achieved strong margins since the beginning of operations with average GM of c.40% in 2004-06. The company began R&D and entered high-end PPTA production in 2006, with production beginning in 2008 and commercial operations launched in 2011. Tayho has been able to maintain a fairly strong and stable average gross margin of c.30% for its aramid fiber business. According to Tayho, the company has raised aramid fiber ASPs this year after seeing a higher feedstock price in intermediate chemicals, following the Jiangsu chemical plant explosion. They have not encountered significant pressure in passing through these prices given the difficulty for end customers to find alternatives. Tayho's existing aramid fiber plants are running at almost full utilization and operating at high production to sales ratios.

Expanding capacity further to capture growth potential: Tayho's sales to production ratio has remained strong since the company began aramid fiber production with some low-end products becoming exports to Japan, Korea, Europe, Russia, etc. After several years of production and market development, the company decided to expand its PPTA capacity and targeted to reach production volume of 12,000 tons (from now 1,500ton) by

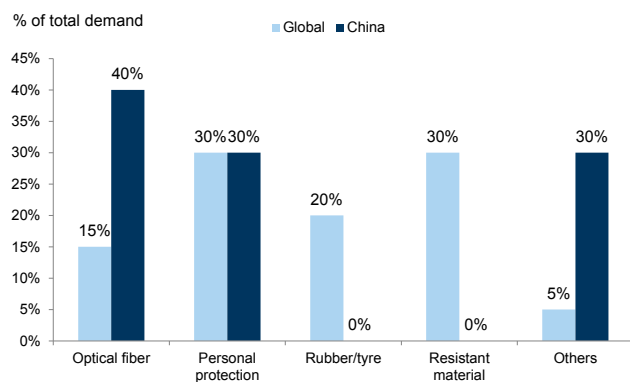
2022. We forecast Tayho's aramid fiber revenue to grow at a 32% CAGR and expect the company to achieve 40% gross profit margin in 2019-21E. We expect the new 3,000-ton PPTA plant to be commissioned in 1Q2020 to achieve c.50% utilization in its first year of operation given strong order interest from the existing customers.

图表 8: China still relies heavily on global supply for PPTA
China and Global PMIA and PPTA capacity, 2018



资料来源: 公司数据

图表 10: China's large exposure variance vs. global in PPTA
PPTA demand application, 2018



资料来源: CPCIA

图表 9: PPTA aramid fiber dominated by US and Japan players

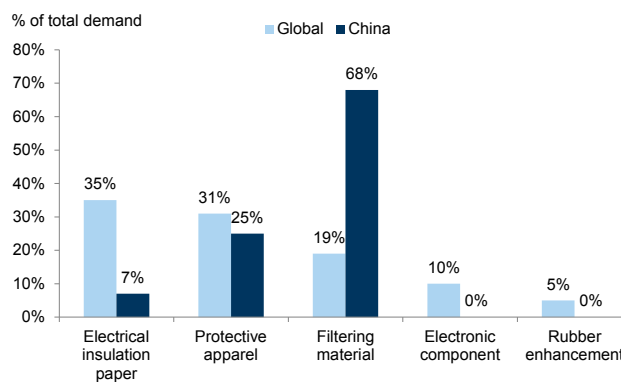
Core aramid fiber projects globally, 2018

Core PPTA projects	Location	Product	Capacity (ton)
DowDupont	US	Kevlar	24,500
DowDupont	US	Kevlar	7,000
DowDupont	Japan	Kevlar	5,000
Teijin	Japan	Technora	3,000
Teijin	Netherland	Twaron	23,000
Yantai Tayho	China	Taparan	1,500
Kolon Industries	Korea	Heracron	2,600
Khimvolokno	Russia	Terlon/Pycap	2,000

Core PMIA projects	Location	Product	Capacity (ton)
DowDupont	US	Nomex	10,000
DowDupont	Spain	Nomex	3,900
Yantai Tayho	China	Tametar	7,000
X-Fiber New Material	China	N/A	5,000
Teijin	Japan	Conex	2,700
Charming	China	N/A	1,500

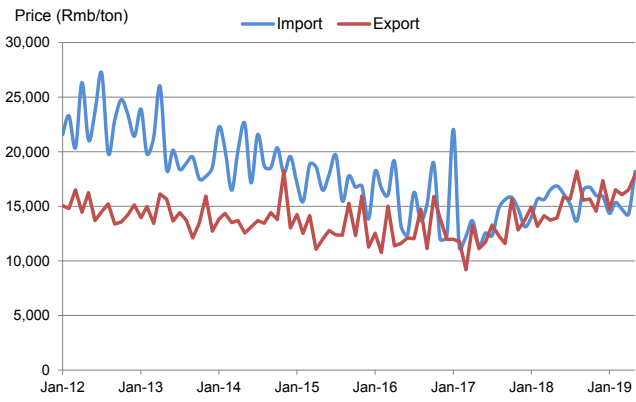
资料来源: CPCIA

图表 11: ...same for PMIA
PMIA demand application, 2018



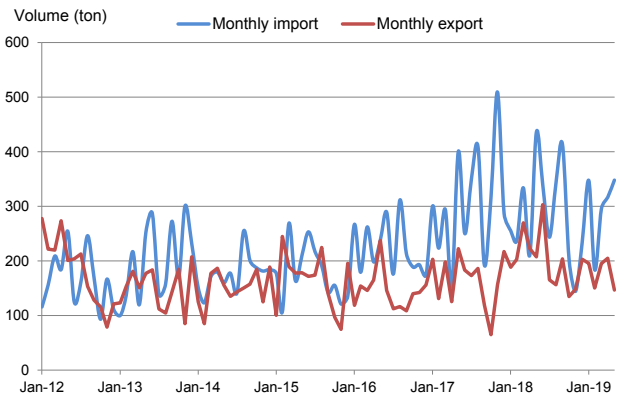
资料来源: CPCIA

图表 12: Both import and export prices have gradually increased to account for the higher feedstock cost



资料来源: China Customs

图表 13: China aramid fiber demand might be met by imported goods if domestic supply does not catch up



资料来源: China Customs

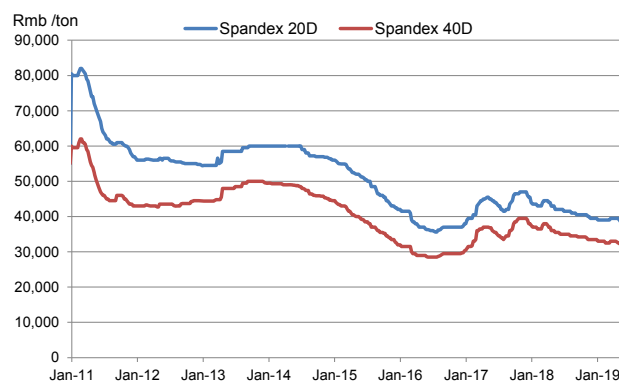
Spandex over-supply could persist until 2020

Oversupplied since 2015: The spandex market has been oversupplied for more than four years. Spandex product prices (20D) have fallen from Rmb80,000/ton in 2011 down recently to Rmb37,000/ton, causing multiple plants in China's coastal areas to turn from profitable to breakeven or even loss making. Year-to-date, spandex prices have declined by another 10% due to weaker-than-expected demand growth. According to the company, Tayho's Yantai plant is now at a breakeven level because of high coastal energy prices and low efficiency given the plant's advanced age.

Outlook remains weak in 2019: Despite the well-acknowledged oversupply in the spandex market, we have still seen multiple new plant additions aimed at gaining market share by displacing old, inefficient break-even units. We expect 60ktpa new capacity from Zhejiang Huafeng Spandex (Not Covered) which is scheduled to commission in August 2019 (+8% to existing China capacity), 15ktpa new capacity from Tayho's Yantai site to be added by end-2020 (+2%), and 30ktpa from Tayho's Ningxia site by end-2020 (+4%). There are two more projects (total 50kt) under planning in the industry, but the actual commission time is not certain (delay partly due to weak margin). In our view, this ample supply will likely be more than enough to offset demand growth. Therefore, we would not expect an industry cycle recovery to begin before 2020.

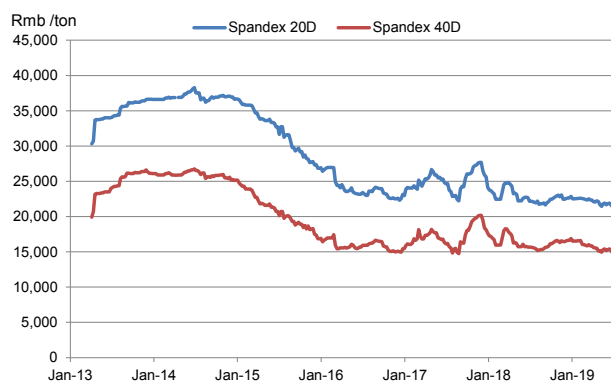
Consolidating Tayho's spandex portfolio: Tayho now has 45kt in annual spandex capacity at Shandong Yantai and 30kt in Ningxia. The Yantai unit is fairly old (10 years +) and is subject to relocation to another industrial park in Yantai. The company plans to build 30kt in spandex capacity at the new Yantai industrial park, replacing the old plant (phase 1 target is 15kt commissioned by end-2020). In Ningxia, Tayho plans to build another 30kt in spandex capacity on top of the existing 30kt. The company is moving its low-end basic spandex production from Shandong to Ningxia to take advantage of lower production costs (e.g., electricity, steam, and labor).

图表 14: Industry oversupply causing lower product prices
Spandex price



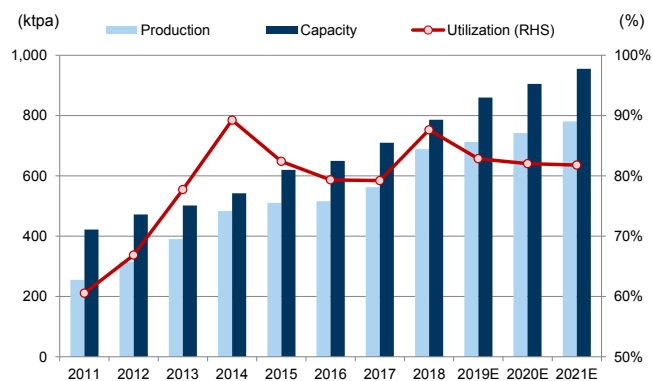
资料来源: 万得

图表 15: Spandex price spread has narrowed slightly
year-to-date
Spandex price spread vs. PTMEG and MDI (feedstock)



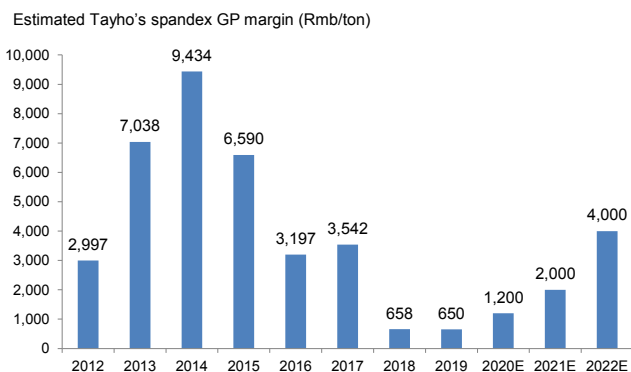
资料来源: 万得

图表 16: We forecast spandex utilization to remain weak into 2020
Spandex China demand supply



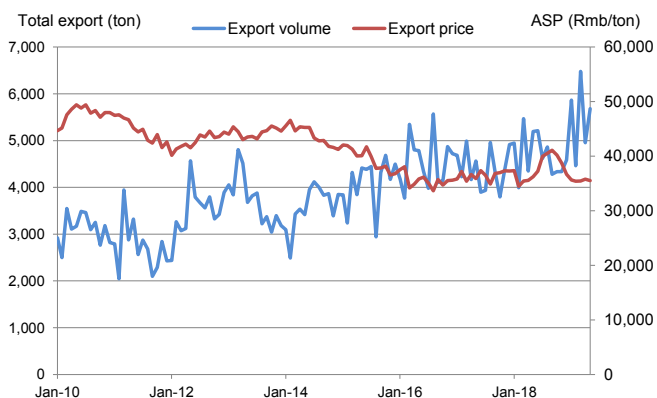
资料来源: CCFEI, 高华证券研究

图表 17: We forecast the worst of the industry cycle is almost over



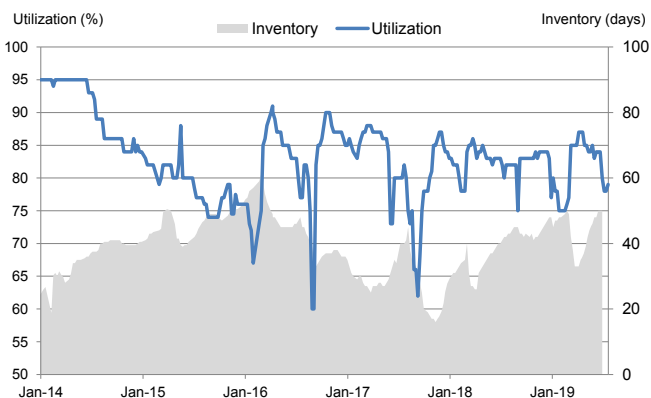
资料来源: 公司数据, 高华证券研究

图表 18: Increasing China exports to absorb the additional spandex supply



资料来源: China Customs, 万得

图表 19: Latest inventory levels are higher than normal
Spandex inventory day and utilization



资料来源: CCFEI

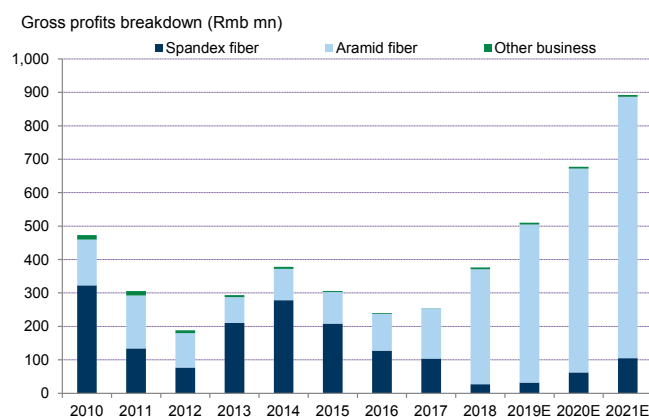
Financials and valuation

Income statement

Growth: We expect Tayho to maintain high growth in its aramid fiber business, particularly in the high-end applications after the completion of its PPTA expansion in 1Q2020E. We forecast Tayho can achieve an EBITDA CAGR of 40% and EPS CAGR of 28% for 2018-21E assuming all the new plants are put into normal operations on schedule.

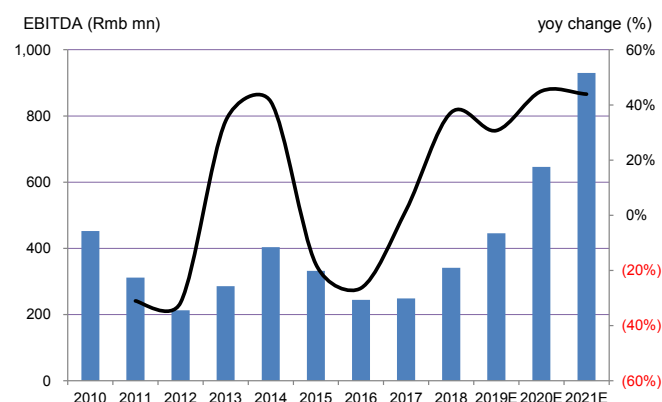
Margin: The oversupplied conditions and ongoing capacity additions in the spandex market will likely delay an earnings and margin recovery to 2020 at the earliest.

图表 20: Aramid fiber has become the key earnings driver



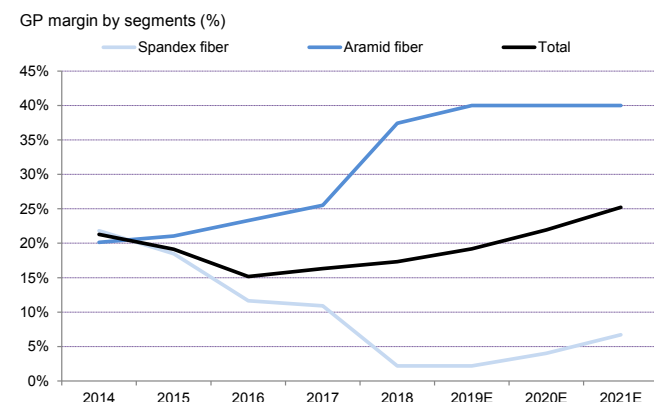
资料来源: 公司数据, 高华证券研究

图表 21: New capacity bringing the company to a different profit level



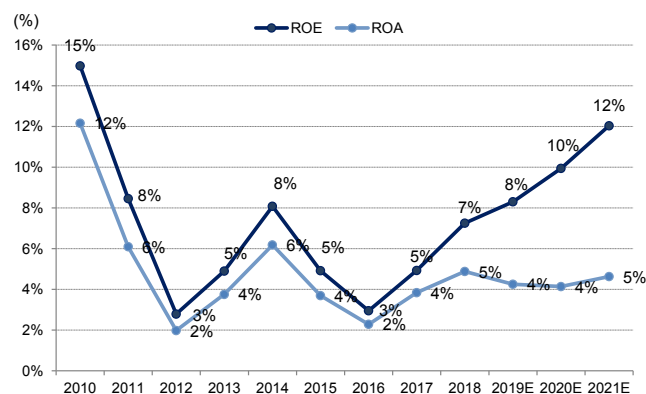
资料来源: 公司数据, 高华证券研究

图表 22: We forecast gross profit margin to grow further



资料来源: 公司数据, 高华证券研究

图表 23: We forecast Tayho to improve ROE



资料来源: 公司数据, 高华证券研究

Balance Sheet

Gearing: As a result of its capex commitments (discussed below), we believe the company will start to see some financial pressure, particularly in 2020E. We forecast Tayho's gearing to increase to 82% in 2020E from the current net cash position.

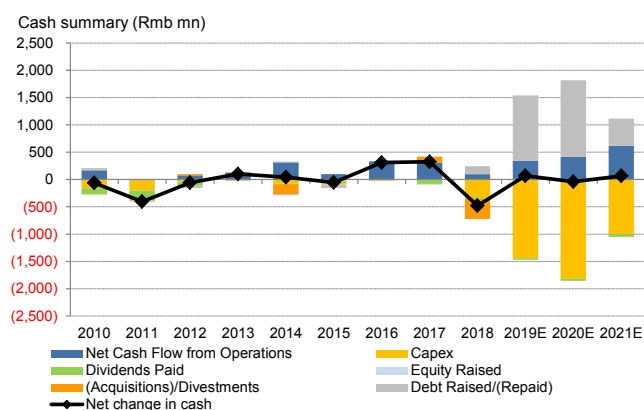
ROE: We forecast Tayho's ROE to improve further from c.8% to c.12% in 2019-21E as gearing continues to go up and new capacity starts to improve the company's utilization and contribute to earnings.

Cash Flow statement

CAPEX: Yantai Tayho has entered a heavy phase of investment with four plants targeting mechanical completion in 1Q2020 (PPTA), 3Q2020 (PMIA), 4Q2020 (spandex), 4Q2020 (spandex), respectively. The total investment budget is Rmb3.25bn, just slightly lower than the company's 2018 total assets of Rmb3.8bn.

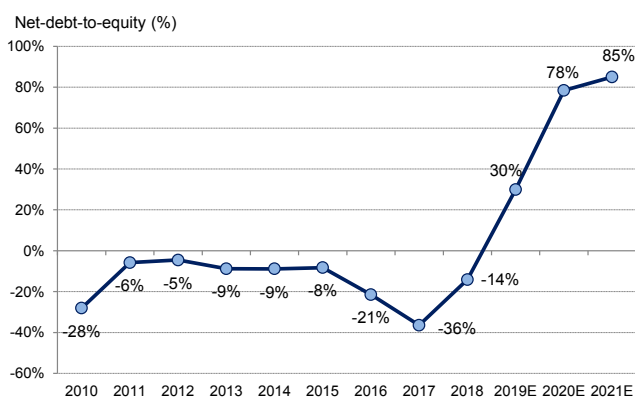
Dividend: We expect the company to maintain an average of 15% dividend payout during 2019-2021E given the high capex spending.

图表 24: Significant financing needs in 2H19 and 2020



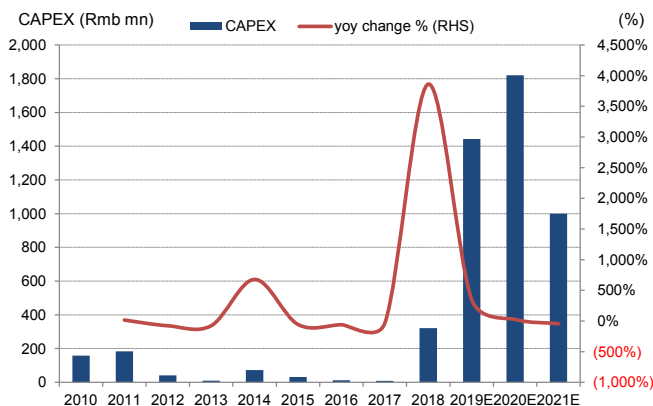
资料来源: 公司数据, Gao Hua Securities Research

图表 25: Yantai Tayho is entering a heavy investment phase



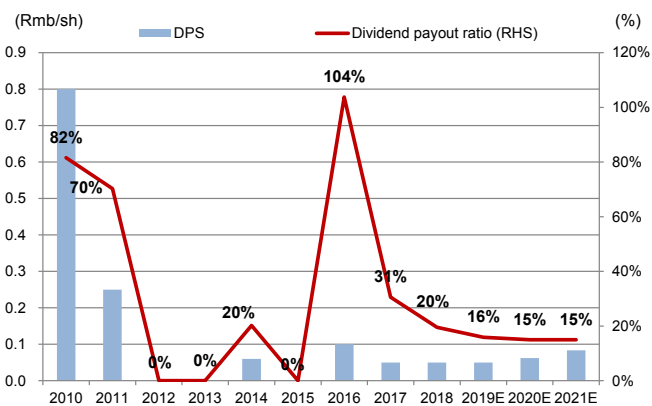
资料来源: 公司数据, 高华证券研究

图表 26: Current levels of material capex spending have not been seen in the past



资料来源: 公司数据, Gao Hua Securities Research

图表 27: High capex cycles do not support strong dividend payouts

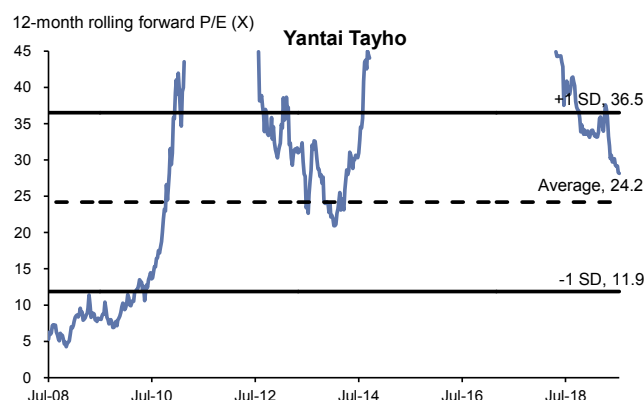


资料来源: 公司数据, 高华证券研究

Valuation

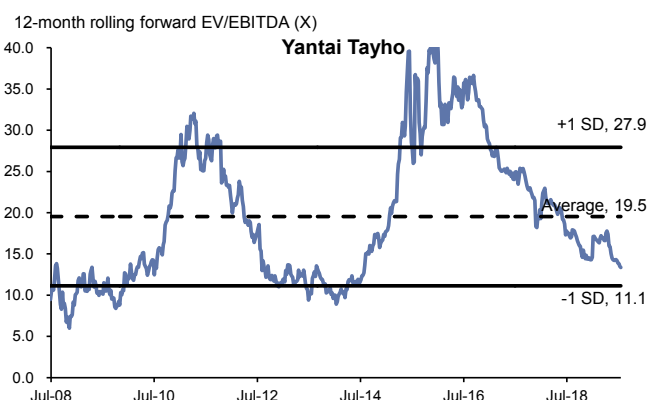
Our 12-month price target for Yantai Tayho of Rmb10.25/sh is based on a SOTP methodology which allows us to capture the value and growth in the company's two distinct business units. We apply a 25X 1yr fwd P/E multiple for the aramid fiber business and 10X P/E for spandex (both applied to a simple average of 2020/2021E net income), discounted back using a discount rate of 10% (our estimate of Tayho's weighted-average cost of capital). Our target multiple for aramid fiber of 25X is with reference to the company's earnings CAGR of 28% for 2018-21E. This implies a PEG of slightly less than 1, which is reasonable in our view given Tayho's gradually declining growth rate. Our target multiple for the spandex business of 10X is based on a peer valuation comparison (average 1yr fwd. multiple for the onshore A-share listed spandex companies). We believe an in-line multiple is appropriate for the spandex business given the similarity in earnings trends and profitability. The firm-wide implied EV/EBITDA is 10.7X on 2020E EBITDA (about 1sd below the historical average).

图表 28: Tayho is trading above historical average P/E



资料来源: 公司数据, Datastream, Gao Hua Securities Research

图表 29: Yantai Tayho is trading below historical average EV/EBITDA



资料来源: 公司数据, Datastream, 高华证券研究

图表 30: Tayho is trading at historical average P/B



资料来源：公司数据, Datastream, Gao Hua Securities Research

图表 31: Tayho's valuation summary

Valuation	2019E	2020E	2021E
Earnings (Rmb mn)	192	252	340
- aramid fiber	178	226	297
- spandex	14	25	42
Blended 20-21E Earnings		296	
Target P/E multiple - aramid fiber		25.0	
Target P/E multiple - spandex		10.0	
Implied market cap - aramid fiber		6,549	
Implied market cap - spandex		336	
Implied market cap - total		6,886	
Implied market cap (Discounted)		6,260	
Implied P/E multiple	32.5	24.9	18.4
Implied P/B multiple	2.7	2.5	2.2
Implied EV/EBITDA multiple	15.50	10.70	7.44
Equity value (Rmb mn)		6,260	
Number of shares (mn)		611	
Target price (Rmb/sh)		10.25	

资料来源：公司数据, 高华证券研究

图表 32: Yantai Tayho's summary financials

Profit model (Rmb mn)	12/18	12/19E	12/20E	12/21E	Balance sheet (Rmb mn)	12/18	12/19E	12/20E	12/21E
Total revenue	2,172.5	2,657.5	3,088.8	3,537.1	Cash & equivalents	358.6	426.4	385.5	452.2
Cost of goods sold	(1,586.1)	(1,911.6)	(2,106.7)	(2,223.1)	Accounts receivable	450.9	551.5	641.0	734.1
SG&A	(226.4)	(277.0)	(308.9)	(353.0)	Inventory	546.4	523.7	577.2	609.1
R&D	--	--	--	--	Other current assets	668.1	668.1	668.1	668.1
Other operating profit/(expense)	(19.0)	(23.2)	(27.0)	(30.9)	Total current assets	2,024.0	2,169.7	2,271.8	2,463.5
EBITDA	341.0	445.7	646.3	930.1	Net PP&E	1,530.7	2,740.8	4,258.8	4,839.8
Depreciation & amortization	(210.1)	(235.6)	(304.7)	(421.7)	Net intangibles	67.4	64.8	62.1	59.4
EBIT	130.9	210.0	341.6	508.4	Total investments	70.4	72.8	75.2	77.7
Interest income	6.5	3.6	4.3	3.9	Other long-term assets	102.2	202.2	252.2	302.2
Interest expense	(5.1)	(15.6)	(78.1)	(143.1)	Total assets	3,794.8	5,250.3	6,920.1	7,742.5
Income/(loss) from uncons. subs.	2.4	2.4	2.4	2.4	Accounts payable	473.2	570.3	628.5	663.2
Others	22.9	20.0	20.0	20.0	Short-term debt	11.7	1,211.7	2,611.7	3,111.7
Pretax profits	157.8	220.5	290.2	391.6	Other current liabilities	798.9	798.9	798.9	798.9
Income tax	(7.9)	(26.2)	(36.0)	(48.7)	Total current liabilities	1,283.7	2,580.9	4,039.1	4,573.8
Minorities	6.5	(1.9)	(2.5)	(3.4)	Long-term debt	--	--	--	--
Net income pre-preferred dividends	156.4	192.4	251.7	339.5	Other long-term liabilities	53.7	48.4	43.5	39.2
Preferred dividends	--	--	--	--	Total long-term liabilities	53.7	48.4	43.5	39.2
Net income (pre-exceptionals)	156.4	192.4	251.7	339.5	Total liabilities	1,337.5	2,629.2	4,082.6	4,613.0
Post-tax exceptionals	--	--	--	--	Preferred shares	--	--	--	--
Net income	156.4	192.4	251.7	339.5	Total common equity	2,155.8	2,317.6	2,531.5	2,820.2
EPS (basic, pre-except) (Rmb)	0.26	0.31	0.41	0.56	Minority interest	301.5	303.4	306.0	309.4
EPS (basic, post-except) (Rmb)	0.26	0.31	0.41	0.56	Total liabilities & equity	3,794.8	5,250.3	6,920.1	7,742.5
EPS (diluted, post-except) (Rmb)	0.26	0.31	0.41	0.56	BVPS (Rmb)	3.53	3.79	4.14	4.62
DPS (Rmb)	0.05	0.05	0.06	0.08					
Dividend payout ratio (%)	19.5	15.9	15.0	15.0					
Free cash flow yield (%)	(3.0)	(16.8)	(21.4)	(5.8)					
Growth & margins (%)	12/18	12/19E	12/20E	12/21E					
Sales growth	39.7	22.3	16.2	14.5					
EBITDA growth	37.3	30.7	45.0	43.9					
EBIT growth	58.9	60.4	62.6	48.8					
Net income growth	56.3	23.0	30.8	34.9					
EPS growth	56.3	23.0	30.8	34.9					
Gross margin	27.0	28.1	31.8	37.1					
EBITDA margin	15.7	16.8	20.9	26.3					
EBIT margin	6.0	7.9	11.1	14.4					
Cash flow statement (Rmb mn)	12/18	12/19E	12/20E	12/21E					
Net income pre-preferred dividends	156.4	192.4	251.7	339.5					
D&A add-back	210.1	235.6	304.7	421.7					
Minorities interests add-back	(6.5)	1.9	2.5	3.4					
Net (inc)/dec working capital	(195.4)	19.1	(84.8)	(90.2)					
Other operating cash flow	(66.1)	(107.8)	(57.3)	(56.8)					
Cash flow from operations	98.4	341.3	416.9	617.7					
Capital expenditures	(321.3)	(1,443.0)	(1,820.0)	(1,000.0)					
Acquisitions	(828.2)	--	--	--					
Divestitures	464.2	--	--	--					
Others	(7.0)	--	--	--					
Cash flow from investments	(692.3)	(1,443.0)	(1,820.0)	(1,000.0)					
Dividends paid (common & pref)	(31.3)	(30.5)	(37.8)	(50.9)					
Inc/(dec) in debt	(7.0)	1,200.0	1,400.0	500.0					
Common stock issuance (repurchase)	--	--	--	--					
Other financing cash flows	151.5	--	--	--					
Cash flow from financing	113.2	1,169.5	1,362.2	449.1					
Total cash flow	(480.7)	67.7	(40.9)	66.7					

Note: Last actual year may include reported and estimated data.

Source: Company data, Goldman Sachs Research estimates.

资料来源：高华证券研究

Key risks

The key upside and downside risks include:

Spandex product margins (+/-): Better/worse-than-expected spandex margins due to their respective demand/supply dynamics. Tayho's spandex business operates at a breakeven level. Any change in margin could result in a sharp % change. The major uncertainty is on the supply side: 1) the actual commission schedule of new units; and 2) potential shut-down of existing units.

Project delays (-): Tayho has multiple projects under construction in Yantai and Ningxia. Any delay in the commission time and/or slower-than-expected pace of ramp up could lead to disappointment to earnings. There are multiple reasons that could result in project delays (e.g. engineering/construction delay, failure in trial production run, etc).

Schedule of shutting down existing units (+/-): Tayho's Yantai plants are relocating to a new chemical industrial site. According to the company, they will shut the old units when the new plants are commissioned by year-end 2020. We expect the shut-down schedule for the old units could lead to an uncertain earnings outlook (e.g. six months earlier or later).

Operational risks (-): The chemical industry is a high-risk business involving the handling of toxic and explosive materials. Accidents could lead to plant suspension or compensation.

Financing risks (-): Yantai Tayho has stated that it will likely have to gear up in the next few years to fund its new projects. Any tightening in liquidity or operational problems could lead to financing pressure.

M&A framework

Across our global coverage, we examine stocks using an M&A framework, considering both qualitative factors and quantitative factors (which may vary across sectors and regions) to incorporate the potential that certain companies could be acquired. We then assign an M&A rank as a means of scoring companies under our rated coverage from 1 to 3, with 1 representing high (30%-50%) probability of the company becoming an acquisition target, 2 representing medium (15%-30%) probability and 3 representing low (0%-15%) probability. For companies ranked 1 or 2, in line with our standard departmental guidelines we incorporate an M&A component into our target price. M&A rank of 3 is considered immaterial and therefore does not factor into our price target, and may or may not be discussed in research.

Under our M&A framework for the Asia Pacific Energy and Chemical sector we recognize that a number of factors could influence the probability of a deal, and our regional team see the following as five key common denominators:

- Regulation on ownership that prohibits or discourages acquisitions, including by a foreign entity, on grounds of national security. Given Tayho is owned by the Shandong SASAC, it is not likely other entities would acquire the company's assets. Accordingly, we rank this factor a 3 (low probability).
- Regulatory risks that discourage potential buyers from an acquisition and complicate realization of planned synergy and restructuring upside. Tayho's new expansion and relocation of projects are subject to local government approvals. The aramid fiber industry also faces strict regulation due to its applications in the defense industry. Thus, regulatory risks likely represent an obstacle to an acquisition of the company. We therefore rank this factor a 3 (low probability).
- Management stance in terms of its openness to a deal (e.g., being the target of acquisition, management buyout), especially by government appointees. Tayho's management has not expressed any openness to being the target of an acquisition, likely given their SOE background. Accordingly, we rank this factor a 3 (low probability).
- Strategic assets that offer the owners a strong competitive advantage due to a high entry barrier (e.g., monopoly) or a low cost structure. Aramid fiber industry is a strategic product exposure that require multi-years of R&D and application, which might attract the interest of private capital. Accordingly, we rank this factor a 2 (medium probability).
- Industry attractiveness based on a growing profit pool as a function of asset expansion, revenue growth, or profitability improvement. We believe Tayho's exposure to the aramid fiber industry is attractive. But the spandex industry remains oversupplied, which might not be resolved in the near term. Accordingly, we rank this factor a 3 (low probability).

Within this context, we have ranked Yantai Tayho with an overall M&A score of "3" (low probability) and reflect no probability of M&A within our price target methodology.

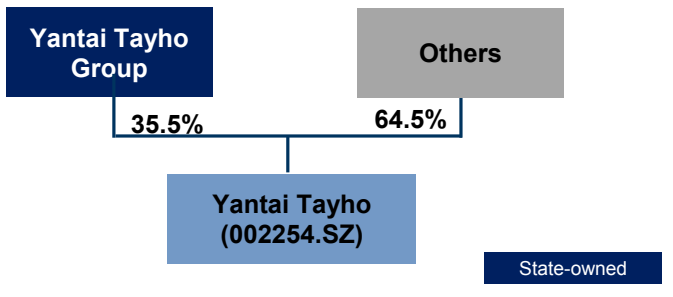
图表 33: Summary of M&A score

Company	Ticker	M&A Rank	Regulation on Ownership	Regulatory Risks	Management Stance	Strategic Assets	Industry Attractiveness
Yantai Tayho	002254.SZ	3	3	3	3	2	2

资料来源：高华证券研究

Appendix

图表 34: Yantai Tayho' s ownership



资料来源：公司数据

高华证券感谢高盛分析师Mark Wiseman, CFA和乔雅虹在本报告中的贡献。

信息披露附录

申明

本人，朱金巧，在此申明，本报告所表述的所有观点准确反映了本人对上述公司或其证券的个人看法。此外，本人薪金的任何部分不曾与，不与，也将不会与本报告中的具体推荐意见或观点直接或间接相关。

投资摘要

投资摘要部分通过将一只股票的主要指标与其行业和市场相比较来评价该股的投资环境。所描述的四个主要指标包括增长、回报、估值倍数和波动性。增长、回报和估值倍数都是运用数种方法综合计算而成，以确定该股在地区研究行业内所处的百分位排名。

每项指标的准确计算方式可能随着财务年度、行业和所属地区的不同而有所变化，但标准方法如下：

增长是下一年预测与当前年度预测的综合比较，如每股盈利、EBITDA 和收入等。回报是各项资本回报指标一年预测的加总，如CROCI、平均运用资本回报率 and 净资产回报率。估值倍数根据一年预期估值比率综合计算，如市盈率、股息收益率、EV/FCF、EV/EBITDA、EV/DACF、市净率。波动性根据12个月的历史波动性计算并经股息调整。

并购评分

在我们的全球覆盖范围内，我们使用并购框架来分析股票，综合考虑定性和定量因素（各行业和地区可能会有所不同）以计入某些公司被收购的可能性。然后我们按照从1到3对公司进行并购评分，其中1分代表公司成为并购标的的概率较高(30%-50%)，2分代表概率为中等(15%-30%)，3分代表概率较低(0%-15%)。对于评分为1或2的公司，我们按照研究部统一标准将并购因素体现在我们的目标价格当中。并购评分为3被认为意义不大，因此不予体现在我们的目标价格当中，分析师在研究报告中可以予以讨论或不予讨论。

Quantum

Quantum是提供具体财务报表数据历史、预测和比率的高盛专有数据库，它可以用于对单一公司的深入分析，或在不同行业和市场公司之间进行比较。

GS SUSTAIN

GS SUSTAIN是一项侧重于通过发现优质行业领先企业而实现长期超额收益的全球投资策略。GS SUSTAIN 50关注名单列出了我们认为凭借出色的资本回报、具有可持续性的竞争优势和对ESG（环境、社会和企业治理）风险的有效管理而有望在长期内相对于全球同业表现出色的行业领军企业。候选企业主要基于对企业在三方面表现的综合量化分析筛选而出。

相关的股票研究范围

朱金巧：亚洲化工行业。

亚洲化工行业：Hengli Petrochemical Co.、Rongsheng Petrochemical Co.、Sinopec Shanghai Petrochemical (A)、Sinopec Shanghai Petrochemical (H)、Tongkun Group Co.、Weihai Guangwei、Yantai Tayho。

信息披露

与公司有关的法定披露

以下信息披露了高盛高华证券有限责任公司（“高盛高华”）与北京高华证券有限责任公司（“高华证券”）投资研究部所研究的并在本研究报告中提及的公司之间的关系。

没有对下述公司的具体信息披露：Yantai Tayho (Rmb10.30)

公司评级、研究行业和相关定义

买入、中性、卖出：分析师建议将评为买入或卖出的股票纳入地区投资名单。一只股票在投资名单中评为买入或卖出由其相对于所属研究行业的总体潜在回报决定。任何未获得买入或卖出评级且拥有活跃评级（即不属于暂停评级、暂无评级、暂停研究或没有研究的股票）的股票均被视为中性评级。每个地区投资评估委员会管理着地区强力买入或卖出名单，该名单以总体潜在回报规模和/或实现回报的可能性为主要依据确立各自研究范围内的投资建议。将股票加入或移出此类强力买入或卖出名单并不意味着分析师对这些股票的投资评级发生了改变。

总体潜在回报：代表当前股价低于或高于一定时间范围内预测目标价格的幅度，包括所有已付或预期股息。分析师被要求对研究范围内的所有股票给出目标价格。总体潜在回报、目标价格及相关时间范围在每份加入投资名单或重申维持在投资名单的研究报告中都有注明。

研究行业：每个行业研究的所有股票名单可登陆<https://www.gs.com/research/hedge.html>通过主要分析师、股票和行业进行查询。

暂无评级(NR)：在高盛于涉及该公司的一项合并交易或战略性交易中担任咨询顾问时并在某些其他情况下，投资评级和目标价格已经根据高盛的政策予以除去。暂停评级(RS)：由于缺乏足够的基础去确定投资评级或价格目标，或在发表报告方面存在法律、监管或政策的限制，我们已经暂停对这种股票给予投资评级和价格目标。此前对这种股票作出的投资评级和价格目标(如有的话)将不再有效，因此投资者不应依赖该等资料。暂停研究(CS)：我们已经暂停对该公司的研究。没有研究(NC)：我们没有对该公司进行研究。不存在或不适用(NA)：此资料不存在或不适用。无意义(NM)：此资料无意义，因此不包括在报告内。

一般披露

本报告在中国由高华证券分发。高华证券具备证券投资咨询业务资格。

本研究报告仅供我们的客户使用。除了与高盛相关的披露，本研究报告是基于我们认为可靠的目前已公开的信息，但我们不保证该信息的准确性和完整性，客户也不应该依赖该信息是准确和完整的。报告中的信息、观点、估算和预测均截至报告的发表日，且可能在不事先通知的情况下进行调整。我们会适时地更新我们的研究，但各种规定可能会阻止我们这样做。除了一些定期出版的行业报告之外，绝大多数报告是在分析师认为适当的时候不定期地出版。

高盛高华是高华证券的关联机构，从事投资银行业务。高华证券、高盛高华及它们的关联机构与本报告所涉及的大部分公司保持着投资银行业务和其它业务关系。

我们的销售人员、交易员和其它专业人员可能会向我们的客户及自营交易部提供与本研究报告中的观点截然相反的口头或书面市场评论或交易策略。我们的资产管理部、自营交易部和投资业务部可能会做出与本报告的推荐或表达的意见不一致的投资决策。

本报告中署名的分析师可能已经与包括高华证券销售人员和交易员在内的我们的客户讨论，或在本报告中讨论交易策略，其中提及可能会对本报告讨论的证券市场价格产生短期影响的推动因素或事件，该影响在方向上可能与分析师发布的股票目标价格相反。任何此类交易策略都区别于且不影响分析师对于该股的基本评级，此类评级反映了某只股票相对于报告中描述的研究范围内股票的回报潜力。

高华证券及其关联机构、高级职员、董事和雇员，不包括股票分析师和信贷分析师，将不时地根据适用的法律和法规对本研究报告所涉及的证券或衍生工具持有多头或空头头寸，担任上述证券或衍生工具的交易对手，或买卖上述证券或衍生工具。

在高盛组织的会议上的第三方演讲嘉宾（包括高华证券或高盛其它部门人员）的观点不一定反映全球投资研究部的观点，也并非高华证券或高盛的正式观点。

在任何要约出售股票或征购购买股票要约的行为为非法的地区，本报告不构成该等出售要约或征购购买要约。本报告不构成个人投资建议，也没有考虑到个别客户特殊的投资目标、财务状况或需求。客户应考虑本报告中的任何意见或建议是否符合其特定状况，以及(若有必要)寻求专家的意见，包括税务意见。本报告中提及的投资价格和价值以及这些投资带来的收入可能会波动。过去的表现并不代表未来的表现，未来的回报也无法保证，投资者可能会损失本金。

某些交易，包括牵涉期货、期权和其它衍生工具的交易，有很大的风险，因此并不适合所有投资者。外汇汇率波动有可能对某些投资的价值或价格或来自这一投资的收入产生不良影响。

投资者可以向高华销售代表取得或通过<https://www.theocc.com/about/publications/character-risks.jsp>和https://www.fiadocumentation.org/fia/regulatory-disclosures_1/fia-uniform-futures-and-options-on-futures-risk-disclosures-booklet-pdf-version-2018取得当前期权和期货的披露文件。对于包含多重期权买卖的期权策略结构产品，例如，期权差价结构产品，其交易成本可能较高。与交易相关的文件将根据要求提供。

全球投资研究部提供的不同服务层级：根据您对接收沟通信息的频率和方式的个人偏好、您的风险承受能力、投资重心和视角（例如整体市场、具体行业、长线、短线）、您与高华证券的整体客户关系的规模和范围、以及法律法规限制等各种因素，高华证券全球投资研究部向您提供的服务层级和类型可能与高华证券提供给内部和其他外部客户的服务层级和类型有所不同。例如，某些客户可能要求在关于某个证券的研究报告发表之时收到通知，某些客户可能要求我们将内部客户网上提供的分析师基本面分析背后的某些具体数据通过数据流或其它途径以电子方式发送给他们。分析师基本面研究观点（如股票评级、目标价格或盈利预测大幅调整）的改变，在被纳入研究报告、并通过电子形式发表在内部客户网上或通过其它必要方式向有权接收此类研究报告的所有客户大范围发布之前，不得向任何客户透露。

所有研究报告均以电子出版物的形式刊登在高华客户网上并向所有客户同步提供。高华未授权任何第三方整合者转发其研究报告。有关一个或多个证券、市场或资产类别（包括相关服务）的研究报告、模型或其它数据，请联络您的高华销售代表。

北京高华证券有限责任公司版权所有 © 2019年

未经北京高华证券有限责任公司事先书面同意，本材料的任何部分均不得(i)以任何方式制作任何形式的拷贝、复印件或复制品，或(ii)再次分发。