CXO 2022年年报复盘：
下行周期中的成长逻辑仍在，
看好23年行业内外的多重因素改善

CXO 2022 Review: Growth Logic Remains Despite of Downward Cycle, Improvement Expected Inside and Outside the Industry in 2023

孟科含 **Kehan Meng,** kh.meng@htisec.com

陈铭 **Roger Chen,** roger.m.chen@htisec.com

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核心观点：中国工程师红利仍在，疫情扰动逐渐出清，中国龙头CXO竞争力长期存在

- 我们认为，2022年是CXO短中长期逻辑经受考验的一年，短期受新冠相关收入的扰动，或对22、23年表观收入利润增速造成波动；从中长期角度来看，生物医药投融资下滑对需求端有一定影响，中美贸易摩擦等地缘政治事件对我国CXO产业发展也存在着潜在不利影响。

- 2023年，CXO的基本面逻辑有望向好:
（1）CXO估值回落到底部位置，我们认为，基于2022年单季度业绩基数变化，2023年各公司业绩同比增速有望逐季度向上;
（2）新冠相关收入将逐渐出清，大品种药品的持续诞生为头部CDMO带来业绩增长的稳定性;
（3）生物医药投融资在美联储结束加息后，有望恢复。跨国大药企是全球研发费用的基本盘，受投融资影响小，头部CXO公司更能切入大药企的供应链;
（4）全球CXO的外包率仍在提升，中国CXO的全球市占率在提升，中国工程师红利仍在。

- 投资建议：建议从生物医药投融资好转、大品种药品诞生等事件关注需求端恢复情况，CXO估值处于历史底部位置，重视板块估值修复机会。我们看好龙头与二三线公司间能力的分化，建议关注：药明康德，药明生物，泰格医药，康龙化成，凯莱英等；同时关注细分赛道中从逆境中修复的公司：普蕊斯，诺思格，泓博医药等。

- 风险提示：医药行业研发投入的不确定性，核心客户的流失风险，订单执行不力的风险。

CXO业绩总结：23年有望回归内生常规业务增速，行业内部分化，看好龙头维持高增速

- 承接新冠相关业务的CXO公司，22年经历收入高速增长，我们认为，23年收入的增长驱动力将更主要来自于常规业务的内生增长。
- 我们认为，进入23年，CXO内部将更加分化，龙头在前期高资本开支、人员扩张的基础上，在生物医药投融资增速放缓等待复苏的大背景下，我们认为龙头将维持较高的收入增速，市场份额有望进一步提高。

表：部分CXO公司22全年、23年一季度业绩

单位：亿元	公司	22年收入	22年收入yoy	22年毛利率	22年归母净利润	22年归母净利润yoy	23Q1收入	23Q1收入yoy	23Q1归母净利润	23Q1归母净利润yoy	23Q1毛利率
临床前CRO	药明康德	393.5	72%	36%	94.0	83%	89.6	5.8	23.0	14%	40%
	康龙化成	102.7	38%	36%	18.3	25%	27.2	29.5	4.4	20%	36%
	昭衍新药	22.7	50%	49%	10.7	93%	3.7	36.3	1.9	50%	52%
临床CRO	泰格医药	70.9	36%	43%	15.4	25%	18.0	-0.7	3.8	1%	40%
	诺思格	6.4	5%	38%	1.1	14%	1.6	-5.5	0.3	8%	36%
	普蕊斯	5.9	17%	26%	0.7	25%	1.6	30.0	0.3	160%	25%
CDMO	合全药业	214.5	165%	/	61.6	193%	/	/	/	/	/
	药明生物	152.7	48%	47%	49.3	49%	/	/	/	/	/
	凯莱英	102.6	121%	44%	33.0	209%	22.5	22.5	6.3	26%	48%
	博腾股份	70.3	126%	41%	20.1	283%	13.8	13.8	3.0	-20%	50%
	和元生物	2.9	14%	52%	0.4	-28%	0.3	0.3	-0.3	-363%	-21%

注：药明康德利润为经调整Non-IFRS归母净利润，康龙化成净利润为经调整Non-IFRS归母净利润，泰格医药为扣非归母净利润，药明生物为经调整归母净利润

上游赛道短期受到行业投融资寒冬影响，需要自下而上寻找具备α的公司

- 上游赛道的业绩增速出现一定分化。

（1）工业端客户占比较高、下游以CDMO、生产阶段为主的，受投融资传导影响较小。

（2）去年同期承接新冠药物研发、核酸检测试剂生产相关业务的公司，短期业绩增速仍受到新冠收入出清的扰动。

我们认为，以临床前CRO为主要业务的模式动物企业，受biotech投融资影响最大，较为适合作为行业景气度恢复的前瞻指标。

表：部分上游公司22全年、23年一季度业绩

单位：亿元	公司	22年收入	22收入yoy	22年毛利率	23Q1收入	23Q1收入yoy	23Q1毛利率	备注
培养基	奥浦迈	2.94	38%	63.82%	0.68	-7%	65.4%	
	多宁生物	7.98	34%	44.23%	/	/	/	
	澳斯康	0.29	16%	/	/	/	/	仅蛋白抗体培养基
分子砌块	毕得医药	8.34	38%	44.11%	2.52	42%	43.51%	
	皓元医药	2.46	78%	/	/	/	/	仅分子砌块
	药石科技	3.53	40%	60.16%	/	/	/	仅分子砌块
模式动物	药康生物	5.17	31%	71.29%	1.4	21%	69.21%	
	南模生物	3.03	10%	41.47%	0.87	19%	39.78%	
	百奥赛图	4.06	2.64	53.8%	/	/	/	仅临床前CRO
科研试剂	泰坦科技	26.08	21%	21.83%	6.55	13%	19.88%	
	阿拉丁	3.78	31%	58.65%	0.87	-5%	61.61%	

资料来源：Wind，各公司2022年年报，HTI

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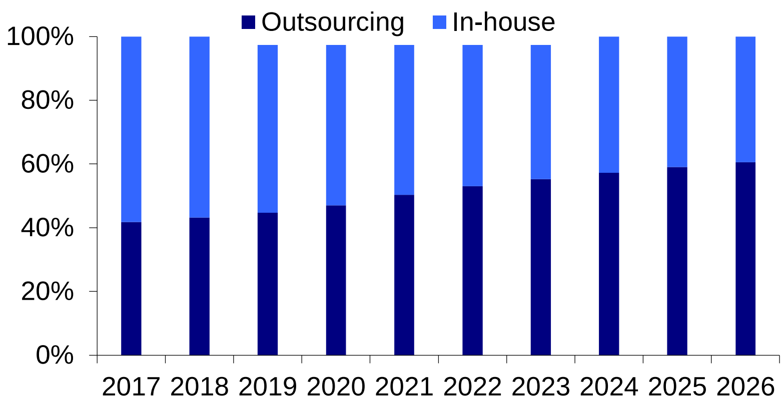
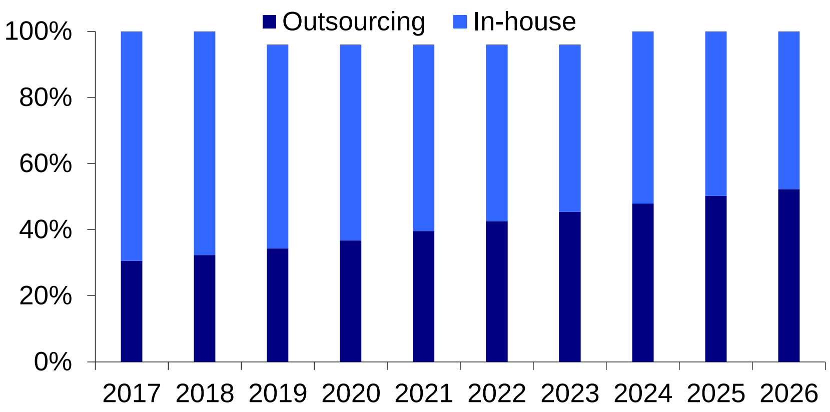
全球生物医药研发外包渗透率继续提升

- 全球生物医药外包率稳步提升。我们认为，在投融资相对处于增速放缓时期，药企会将研发资金更多投资于核心管线的临床推进，对临床前的研发实验室、生产设施产能等环节资金投入将会减少，我们预计未来生物医药研发外包渗透率将继续提升，根据药明康德援引沙利文的数据预计生物医药研发外包渗透率到2026年，美国将达到52.2%，中国将达到60.5%。

图： US CRO outsourcing rate, 2017-2026E



图： China CRO outsourcing rate, 2017-2026E

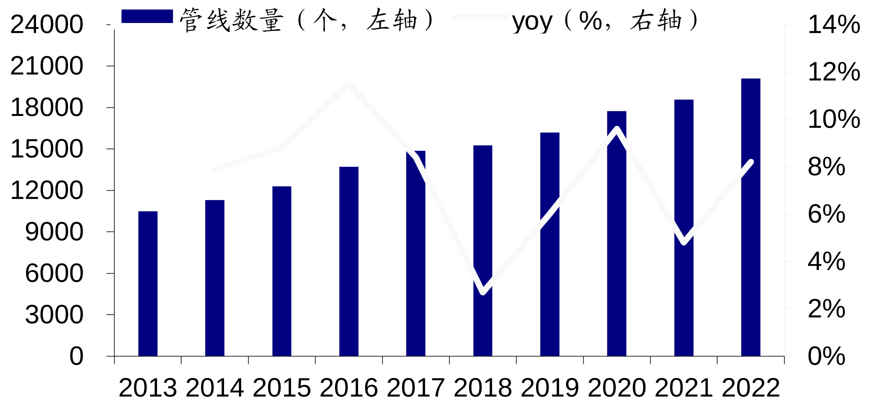


资料来源：药明康德投资者开放日展示材料援引沙利文，HTI预测

研发管线数量：稳定增长，22年仍同比有增长

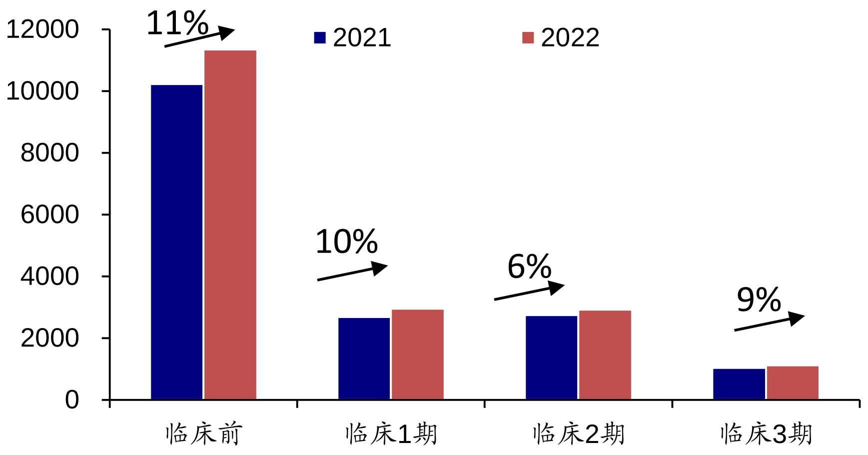
- 全球在研管线数量稳步增加。2022年全球所有在研管线数量达20109个，较2021年增加8%。
- 分阶段看，临床前达11351个，同比增加11%，临床1期管线数量2947个，同比增加10%，临床2期管线数量2922个，同比增加6%，临床3期管线数量1119个，同比增加9%。我们认为，临床前管线数量的两位数增长将为未来全球医药研发支出的增长提供源头保障。

图： 2013-2022年全球医药研发管线数量



资料来源：PharmaProjects，HTI

图： 2022年vs2021年 全球各研发阶段管线数量对比（个）



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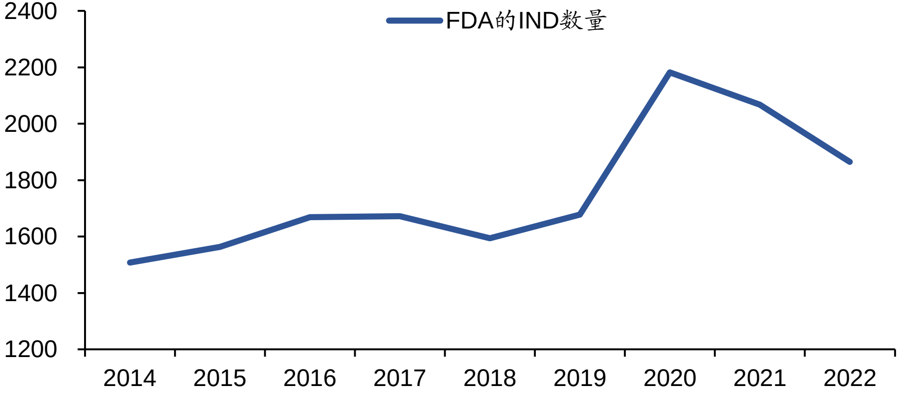
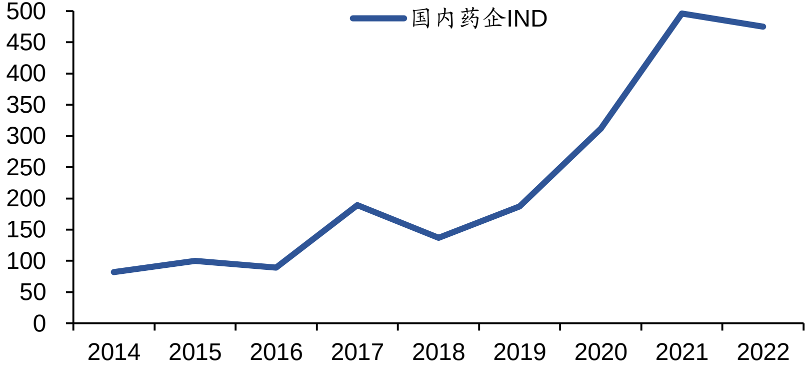
IND数量：2022年同比有所下滑

- 美国FDA的IND数量，2022年较2021年有所下滑，2021年IND数量为2068个，2022年为1865个，同比下滑10%。
- NMPA获批的国产新药IND数量，2022年较2021年有所下滑，2021年国产新药的IND数量为496个，2022年为475个，同比下滑4%。
- 我们认为IND数量的有所放缓，主要原因是，（1）受行业投融资增速放缓的影响，药企研发支出节奏有所放缓；（2）部分不具备差异化、Me too类药物研发被药企停止研发，未进入临床阶段。

图： 2014-2022年FDA的IND数量（单位：个）



图： 2014-2022年NMPA的IND数量（单位：个）

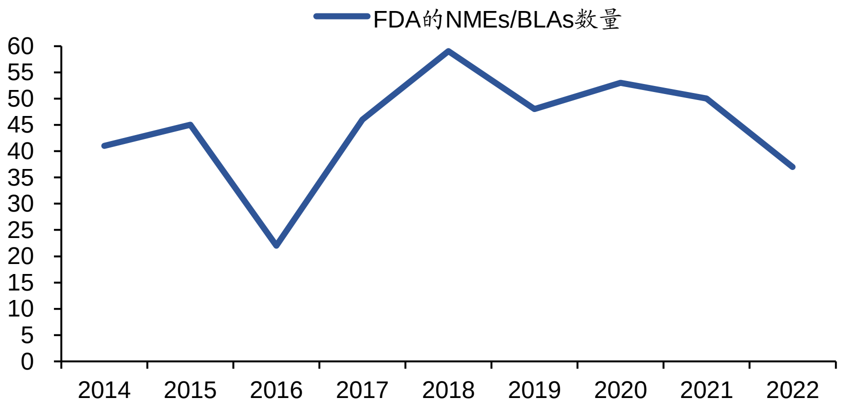


资料来源：FDA，医药魔方，HTI

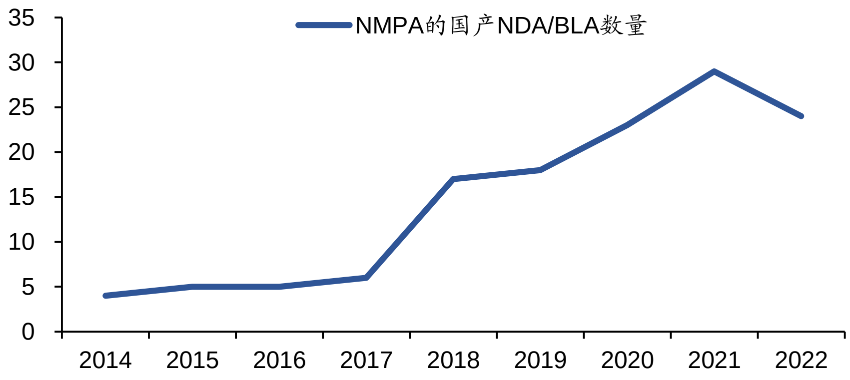
获批数量：2022年同比有所下滑

- FDA的NMEs/BLAs数量，2022年较2021年有所下滑，2021年合计获批50个新药，2022年为37个。
- NMPA获批的国产新药IND数量，2022年较2021年有所下滑，2021年国产新药的IND数量为29个，2022年为24个。
- 我们认为获批上市数量的有所放缓，主要原因是中美两地监管收紧同质化靶点药物审评，新冠药物及疫苗产品上市占用监管审评资源，以及新冠疫情期间对临床试验进度的影响。

图： 2014-2022年FDA的NMEs/BLAs数量（个）



图： 2014-2022年NMPA的NDA/BLA数量（个）

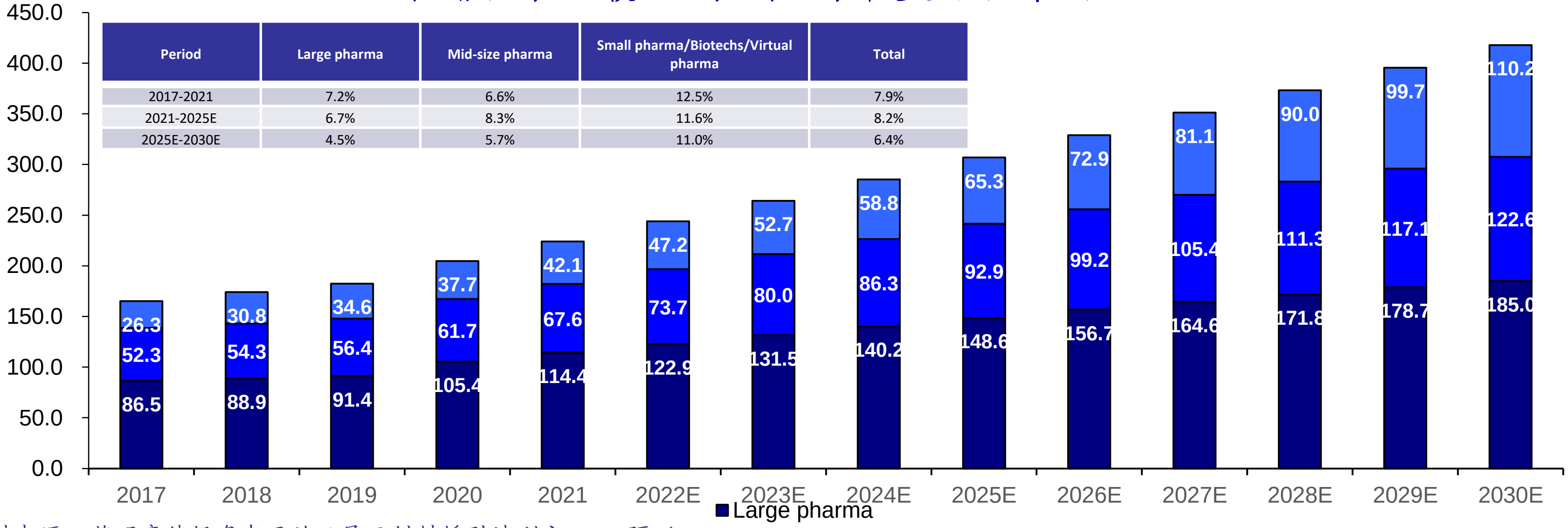


资料来源：医药魔方，Nature Reviews，HTI

海外MNC研发投入是全球医药研发支出的基本盘，Biotech贡献增速弹性

- 根据药明康德投资者开放日展示材料援引沙利文的数据，预计2021-2025年，全球新药研发投入CAGR超8%，小生物药公司近12%。其中，以2022年为例，全球医药研发支出总额为2438亿美元，其中Large Pharma占到50.4%，相比2017年小幅下降2.0pp，预计到2026年这一比例为47.7%。

图：根据药企规模大小的全球医药研发支出（US$bn）



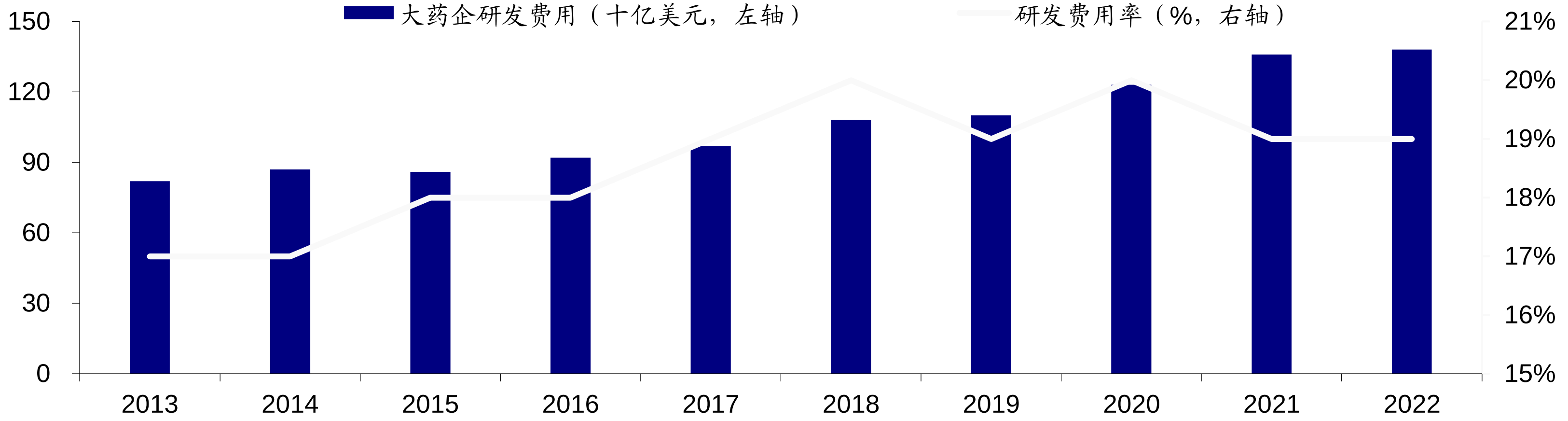
Period	Large pharma	Mid-size pharma	Small pharma/Biotechs/Virtual pharma	Total
2017-2021	7.2%	6.6%	12.5%	7.9%
2021-2025E	6.7%	8.3%	11.6%	8.2%
2025E-2030E	4.5%	5.7%	11.0%	6.4%

资料来源：药明康德投资者开放日展示材料援引沙利文，HTI预测

大药企研发支出：稳定增长，22年仍同比有增长

- **大型药企的研发投入在逐步加大，研发占比近两年有所下降。**大药企研发支出从2013年的820亿美元，预计增长到2022年的1380亿美元，预计CAGR为5.3%，2022年相较2021年，预计仍增长1.5%。
- **研发费用率呈稳中有升态势**。2013年大药企研发费用率为17%，预计2022年为19%，相较2020年有小幅下降，我们认为，研发费用率下降的一个主要原因是因新冠疫苗和新冠药所带来的营收增长。

图： 2013-2022年全球大药企研发费用支出

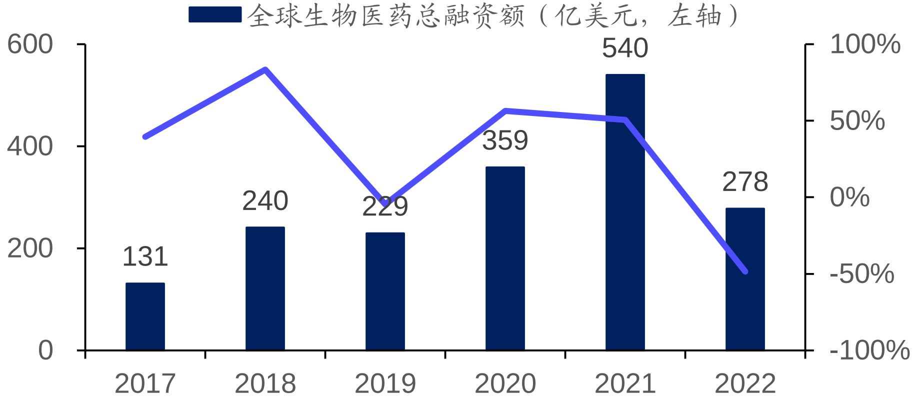


资料来源：IQVIA，药研网公众号，HTI预测

海外投融资：22年接近下滑五成，我们预计23年下半年看到同比恢复

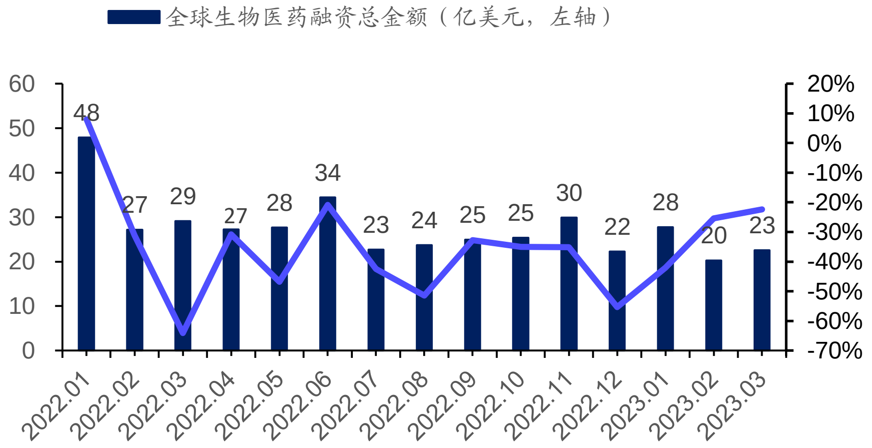
- **2022年，全球生物医药投融资下滑明显。**全球生物医药领域融资总额约278亿美元，基于2021年540亿美元的高基数，同比下滑49%。
- **2023年一季度，海外投融资下滑幅度收窄。**2023年Q1全球生物医药领域融资总额约71亿美元，同比下滑32%。 剔除中国地区，2023年一季度，海外生物医药领域融资总额约54亿美元，同比下滑20%。

图： 2017-2022年全球生物医药融资变化趋势



资料来源：动脉橙产业智库公众号，HTI

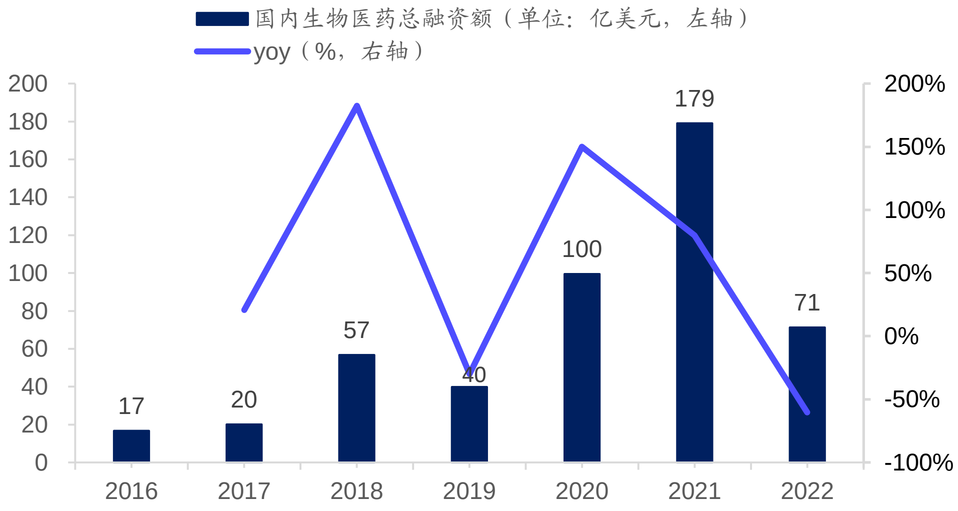
图： 2022年1月-2023年3月全球生物医药投融资变化趋势



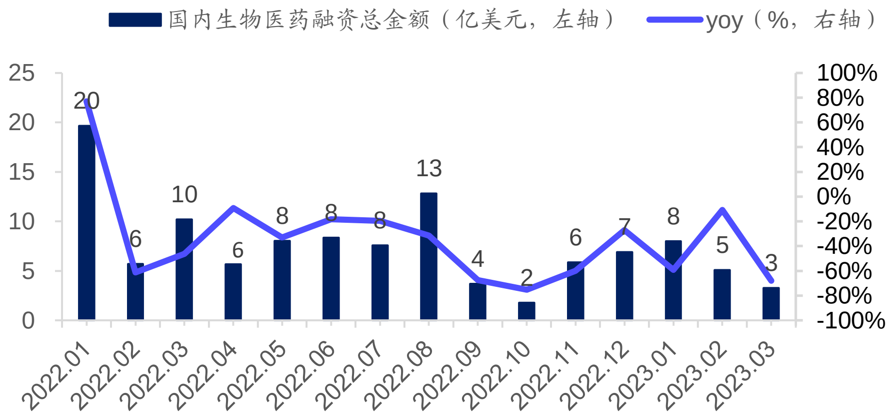
国内投融资：仍处于底部区域

- **2022年，国内生物医药投融资下滑明显，行业处于投融资的下行周期。**2022年，国内生物医药领域融资总额约为71.2亿美元，相比2021年179.0亿美元的高基数，同比下滑60%。
- 2023年一季度，国内生物医药领域融资总额约为16.35 亿美元，同比下滑约54%。

图： 2016年-2022年国内生物医药投融资变化趋势



图： 2022年1月-2023年3月国内生物医药投融资变化趋势

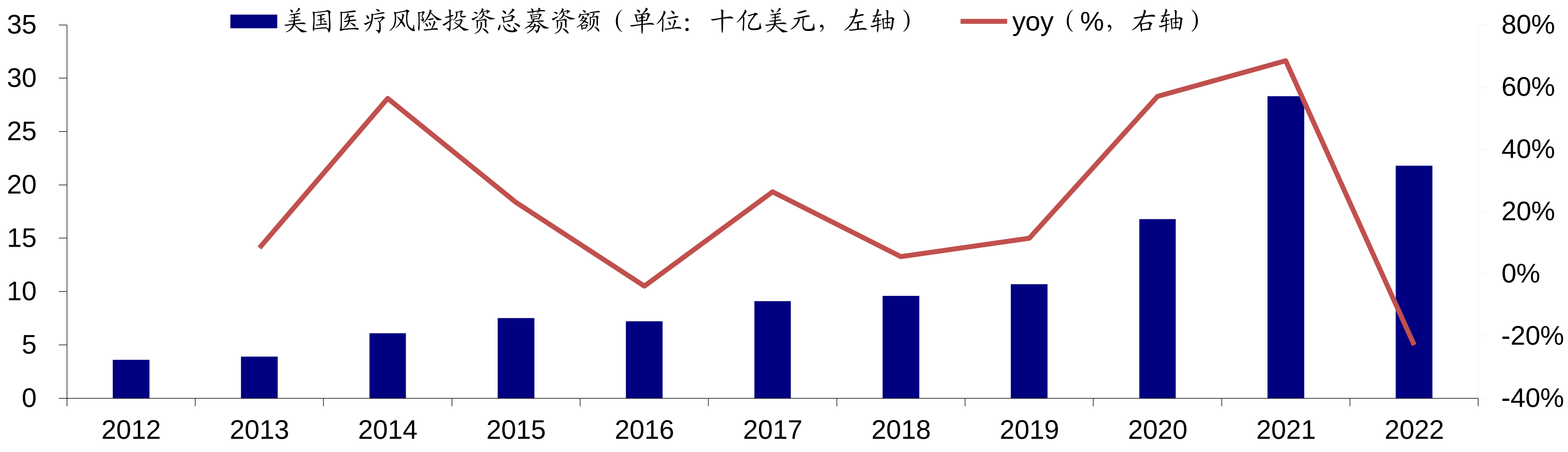


资料来源：动脉橙产业智库公众号，HTI

投融资前瞻：美国医药VC基金募资金额是2012年以来第二高年份

- 2022年全年，美国风险基金筹集了220亿美元，这是自2012年以来第二大规模的融资年份。
- 我们认为，更前端的募资数据显示，海外的投融资景气度有望于23年下半年恢复同比增长趋势。

图： 2012-2022年美国医疗风险投资总募资额变化趋势



资料来源：Healthcare Investments and Exits Annual Report 2022，HTI

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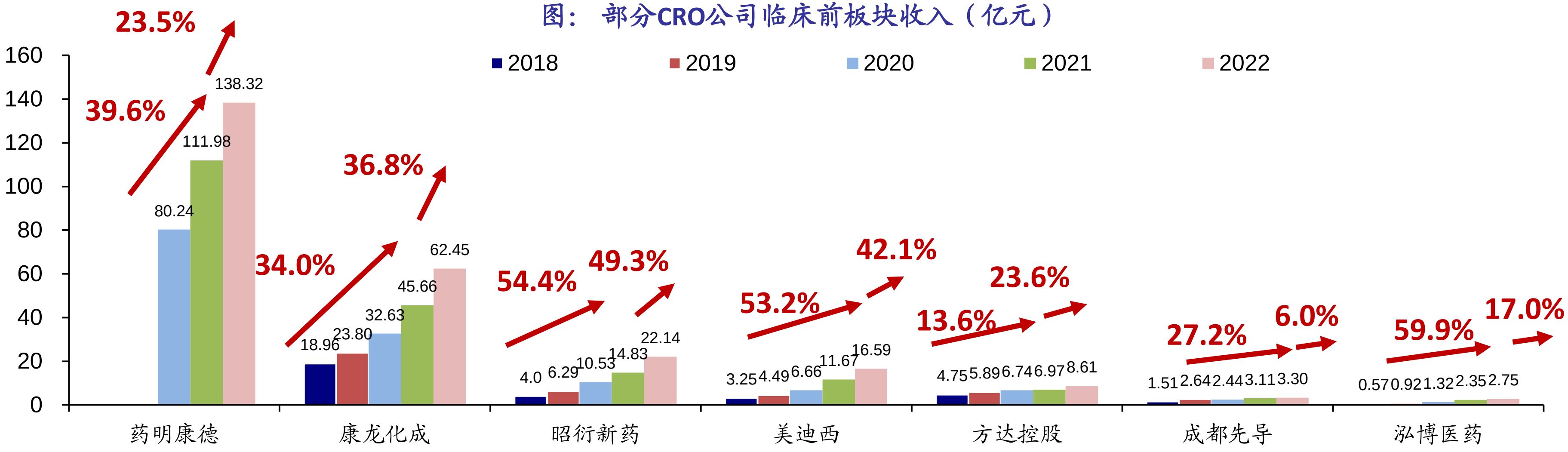
临床前CRO收入：高基数上仍保持较高增速

- 我们认为，考虑到2020、2021年疫情相关药物的研发、投融资活跃的外环，给全球生物医药研发带来的正向影响，2022年各临床前CRO公司收入增速并未明显放缓，部分公司仍呈现加速增长的态势。
- 我们测算，药明康德2022年临床前部分收入增速为23.5%，康龙化成为36.8%，昭衍新药为49.3%。

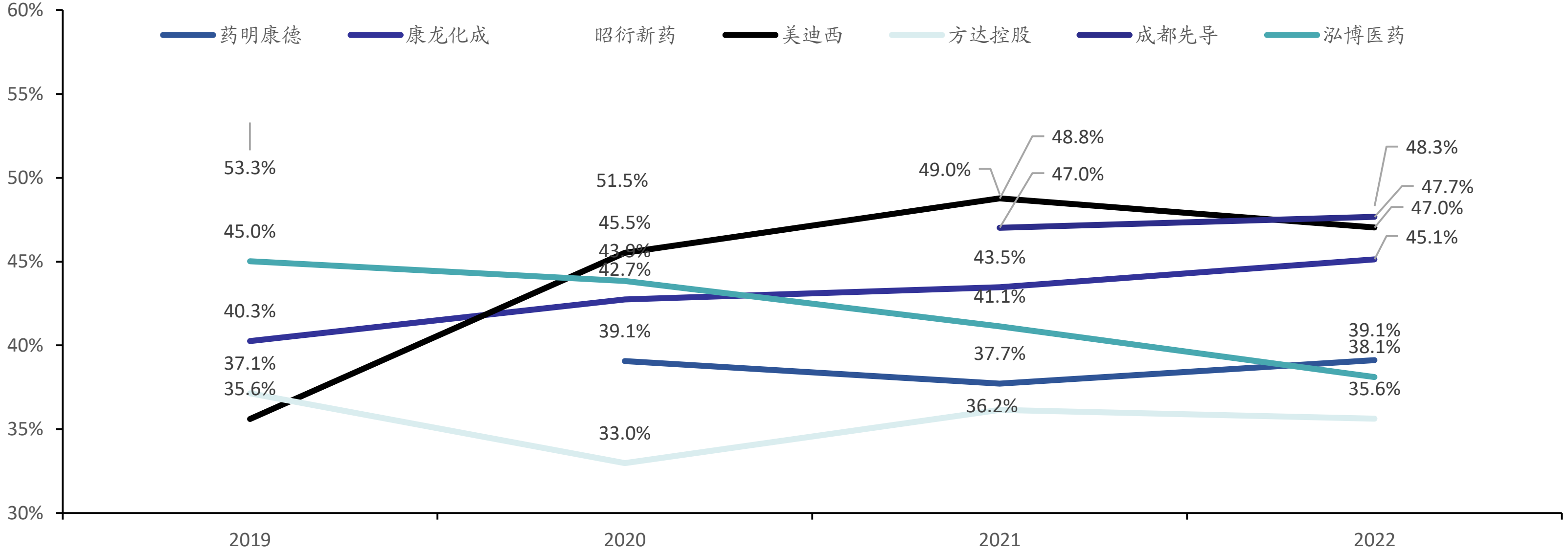
图：部分CRO公司临床前板块收入（亿元）



临床前CRO毛利率：猴子价格上涨对临床前CRO毛利率产生负面影响

- 我们认为，受外部投融资增速下滑、猴价在2022年整体呈上升趋势等影响，以及各公司产能投放的影响，相比2019、2020年，2022年部分临床前CRO公司毛利率呈现下降趋势。

图： 部分CRO公司临床前板块毛利率（%）



资料来源：Wind，HTI

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2022年人效：相比21年继续提升

- 全口径的人效相比，受益于大订单的交付，药明康德2022人效提升35.2%。康龙化成、昭衍新药、美迪西、方达控股，全口径人效均呈现上升趋势。
- 我们认为，随着2023年各公司提高精细化运营程度，通过加强绩效管理，引进优秀人才，控制人员招聘速度，2023年各公司人效有望继续提升。

全口径人效：万元/人	2019	2020	2021	2022	22/21 yoy
药明康德	59	63	66	89	+35.2%
康龙化成	51	47	50	53	+5.6%
昭衍新药	52	73	71	81	+14.8%
美迪西	37	41	48	50	+5.1%
方达控股	100	83	90	104	+15.6%
成都先导	67	53	66	65	-1.7%
泓博医药	50	47	56	49	-12.9%

资料来源：Wind，HTI

产能：行业仍处于扩张周期

- 我们认为，临床前CRO全行业仍处于扩张周期。

表： 部分临床前CRO公司产能建设和扩张计划

	产能
药明康德	苏州、启东55000 m^2实验室建设中，2023投用
	常州三期、常熟工厂投产
	武汉华中总部投用
康龙化成	宁波第一园区二期工程第二部分42000 m^2建设中
	西安园区105000 m^2实验室，预计2024投用
	宁波第三园区一期工程140000 m^2实验室建设中，预计2023交付使用
	北京、青岛新增实验室面积超过70000 m^2，2022年开始陆续投用
昭衍新药	苏州昭衍已完成20000 m^2设施建设，2023年逐步投用
	子公司昭衍易创（苏州）租赁9000 m^2实验室，预计2023年下半年投用

表： 部分临床前CRO公司产能建设和扩张计划

	产能
美迪西	2022年GLP实验室面积增加18000 m^2
方达控股	美国加州25000平方尺（约2300 m^2）设施建成投产
	美国46000平方尺（约4300 m^2）制剂生产分析新设施，预计2024年一季度建设完成
	苏州215000平方尺 (20000 m^2)临床前动物研究设施运营
	武汉34000平方尺(3100 m^2)药效学单位运营
	上海临港67000平方尺(6200 m^2)药代药动实验室投用
成都先导	约122亩（约81000 m^2）新药研发中心，建设期限3年，计划2025年完成
泓博医药	成都20400 m^2医药研发实验室投用

资料来源：各公司2022年年报，HTI

目录

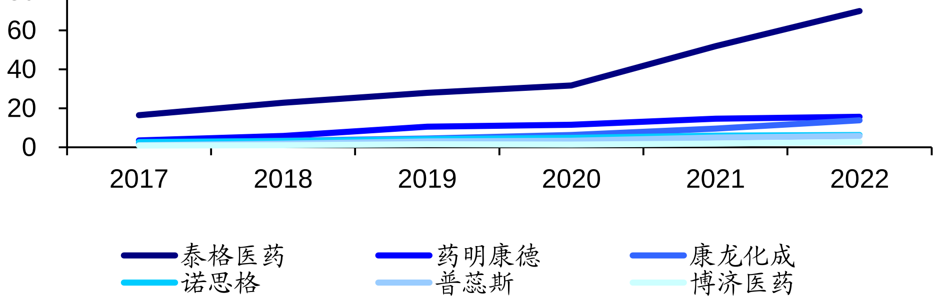
临床CRO：业务结构导致盈利水平差异，SMO业务加速发展

- 我们认为，受疫情影响，以及新冠订单中过手费比例较高的影响，板块毛利率整体略有下滑。2022年毛利率水平：泰格医药39.33%＞诺思格36.85%＞药明康德34.89%＞博济医药32.96%＞普蕊斯27.29%>康龙化成11.46%。

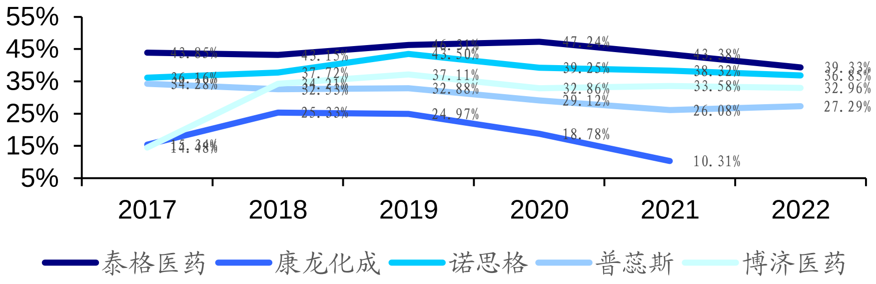
表：各公司临床CRO板块营业收入复合年均增长率

	泰格医药	药明康德	康龙化成	诺思格	普蕊斯	博济医药
2021-2022 临床板块收入yoy	34.99%	6.40%	45.82%	4.93%	16.50%	38.50%
2017-2022临床板块收入CAGR	27.29%	28.11%	35.52%	15.34%	31.76%	19.74%

图：2017-2022年临床CRO板块营业收入水平（万元）



图：2017-2022年临床CRO板块毛利率水平



资料来源：各公司历年年报，Wind，HTI

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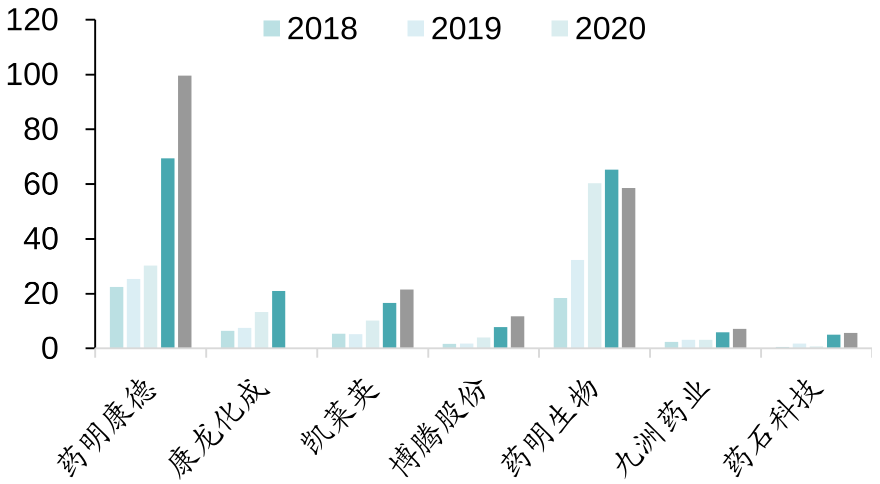
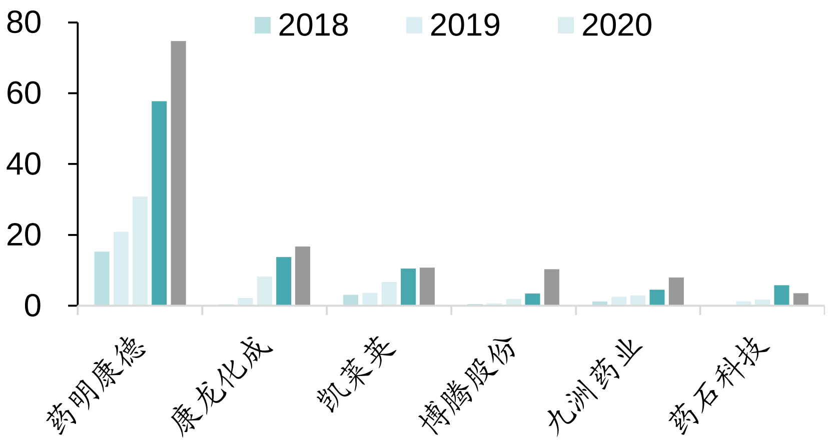
资本开支：2022年继续高企，行业仍处于扩产周期

- 产能的扩建依靠资本开支，当期资本开支反映了未来几年收入规模上限。较高的资本性支出及在建工程显示出CDMO企业高涨的产能扩张热情，提升了板块整体的增长潜力。

图：2018-2022 资本性支出（亿元）



图：2018-2022在建工程（亿元）

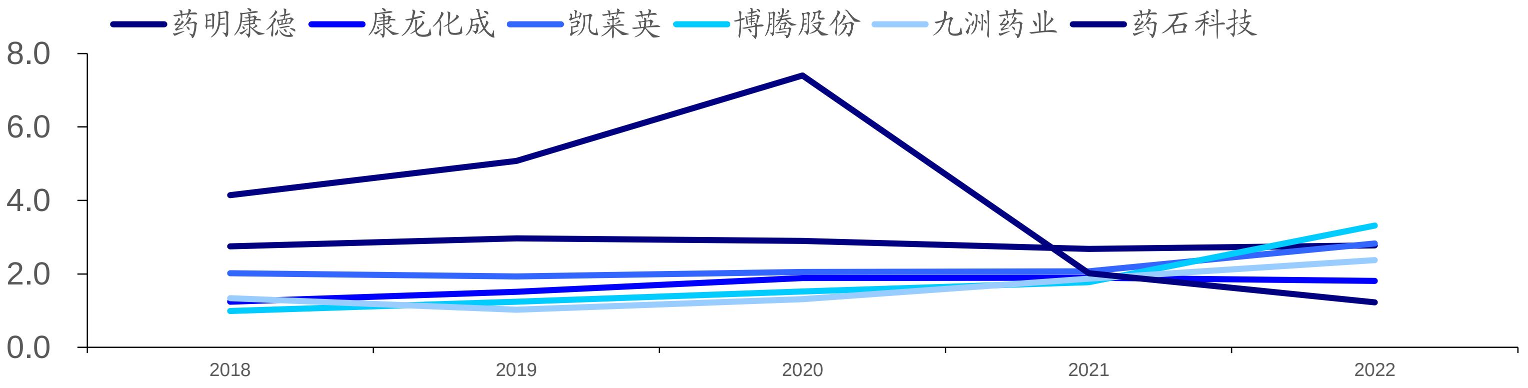


资料来源：Wind，HTI

产能管理能力：药明康德、凯莱英具有一定规模优势

- 龙头公司在行业红利期到来之前进行大量的资本开支，高强度的资产开支之后，亦考验管理层的资产管理能力。药明康德、凯莱英的收入/固定资产这一指标保持着较为稳定的状态，表明大规模地资产扩张对资产利用效率（资产周转率）的冲击降到了最小，博腾股份受新冠大订单的交付，周转率快速提升。
- 2022年各小分子CDMO固定资产周转率：博腾股份3.32，凯莱英2.83，药明康德2.78，九洲药业2.38，康龙化成1.81，药石科技1.22.

图：产能管理能力——收入/固定资产比较



来源：各公司年报，各公司官网，HTI

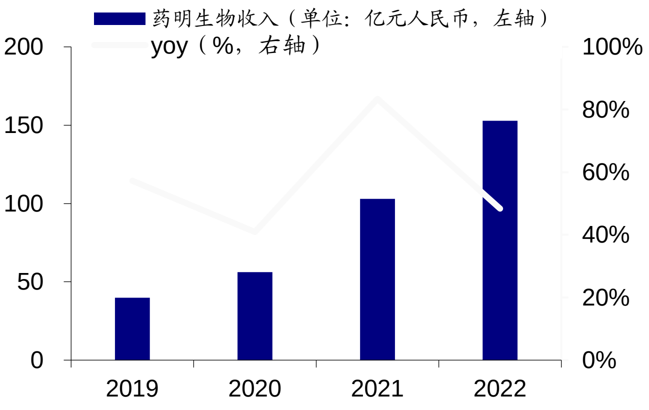
注：药明康德未披露反应釜总体积，但其小分子CDMO收入远大于同行，我们推测其产能水平也是行业领先水平

目录

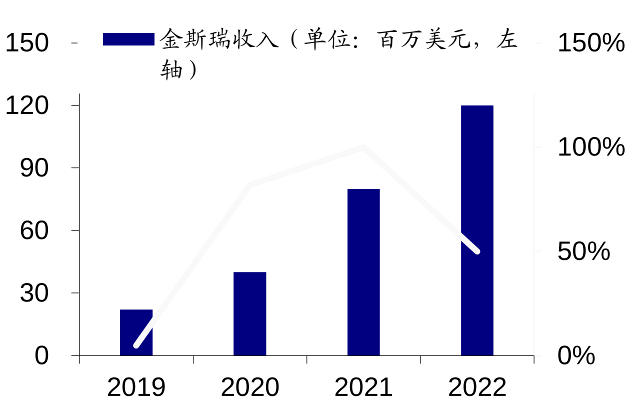
大分子CDMO：龙头保持高增速，小分子公司切入大分子

- 2022年药明生物收入153亿元（+48%），2022年金斯瑞蓬勃生物收入1.20亿美元（+50%），2022年奥浦迈CDMO收入0.91亿元（+7%）。
- 小分子CDMO切入大分子赛道的两家公司：2022年康龙化成大分子与CGT收入1.95亿元（+29%），2022年凯莱英生物大分子收入1.01亿元。

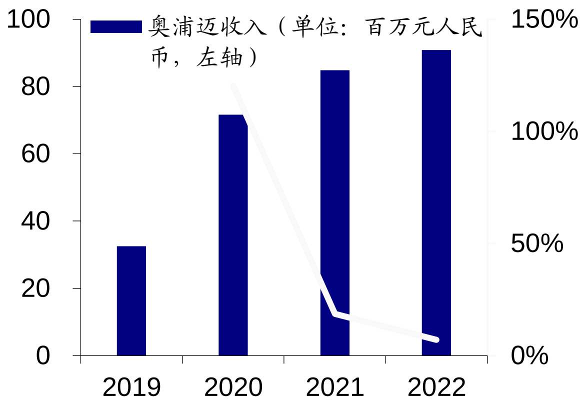
图：药明生物历年收入与增速



图：金斯瑞大分子CDMO历年收入与增速



图：奥浦迈CDMO历年收入与增速

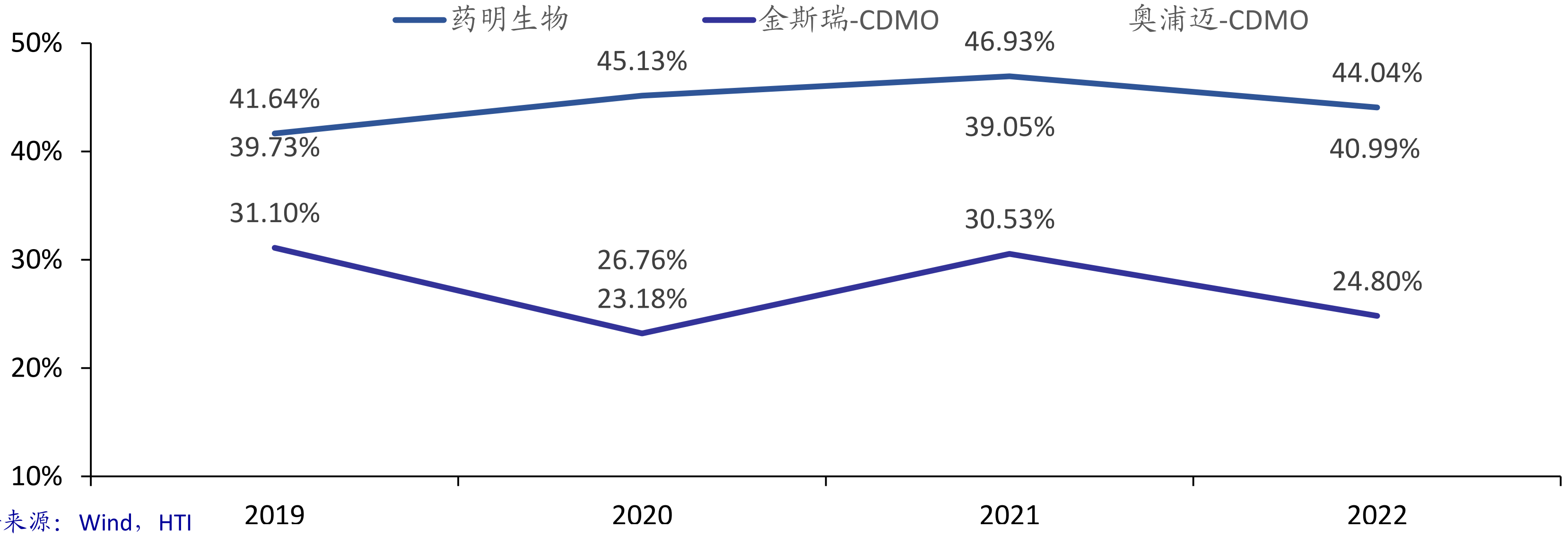


资料来源：Wind，HTI

大分子CDMO：药明生物毛利率最高

- 22年毛利率对比：药明生物 44%>奥浦迈CDMO 41%>金斯瑞24.8%。我们认为，在产能迅速投放的背景下，新冠商业化订单的交付，使得药明生物的产能利用率维持在高位，规模效益较为明显，同时公司客户质量较高，因此毛利率较高。

图：部分大分子CDMO公司毛利率对比

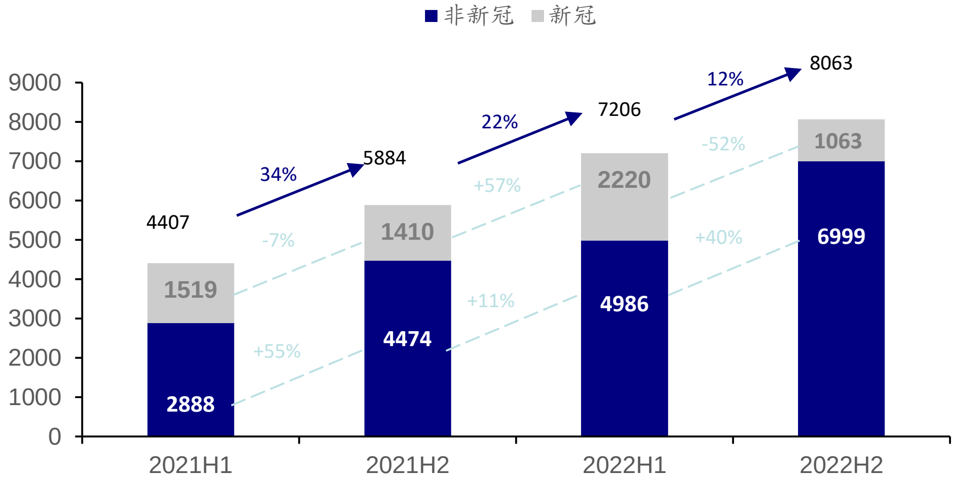


资料来源：Wind，HTI

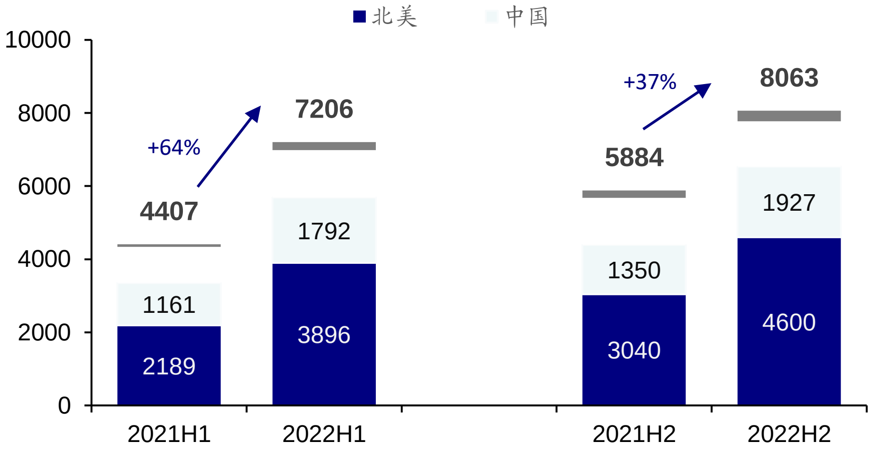
大分子CDMO：以药明生物为例，常规业务高增速，国内增速有所放缓。

- 药明生物22H1收入同比增长64%，22H2收入同比增长37%。
- 药明生物22全年常规业务收入120亿（+63%），下半年常规业务收入70亿（+56%）。

图：药明生物新冠收入与非新冠收入拆分（亿元）



图：药明生物不同地区收入拆分（亿元）

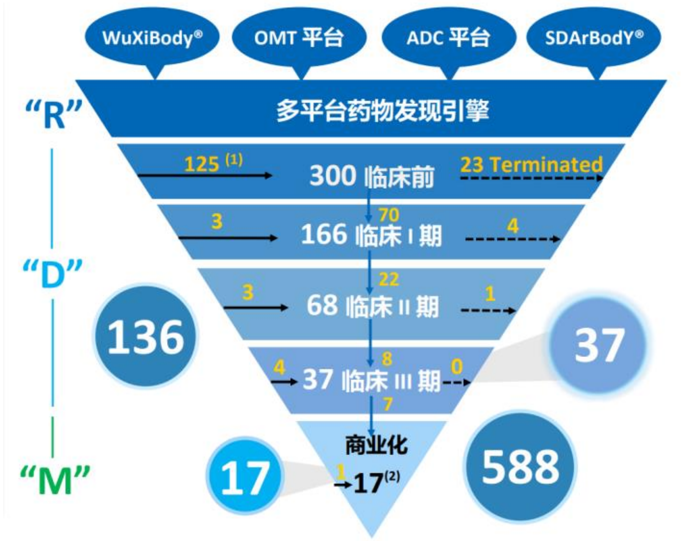


资料来源：药明生物2022年报，药明生物业绩会展示材料，HTI

大分子CDMO：药明生物管线数量继续高速增加，市场份额继续提升

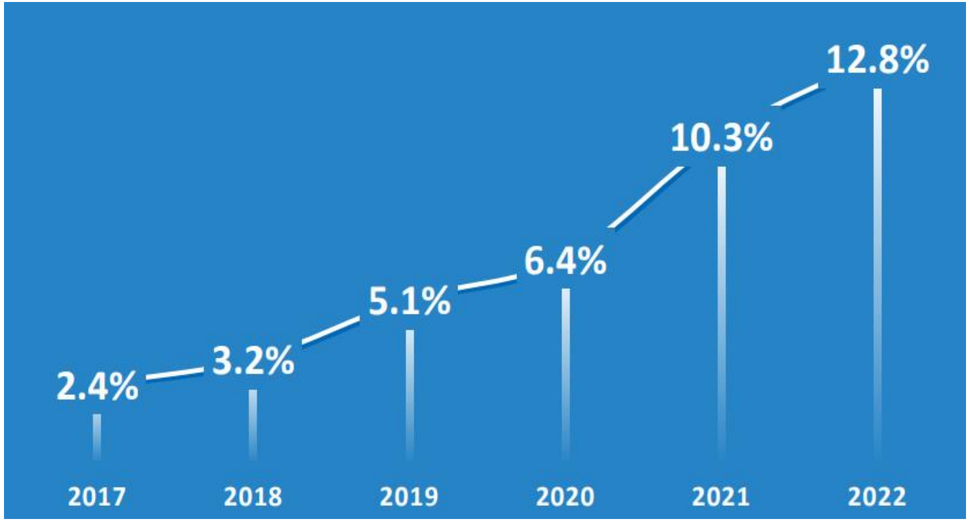
- 22年各家CDMO项目数量：药明生物588个(+108)，金斯瑞（非基因治疗部分）106个(+43)，凯莱英生物大分子48个。

图：药明生物22年项目数量及增长量



资料来源：药明生物业绩会展示材料，HTI

图：药明生物市场份额持续提升



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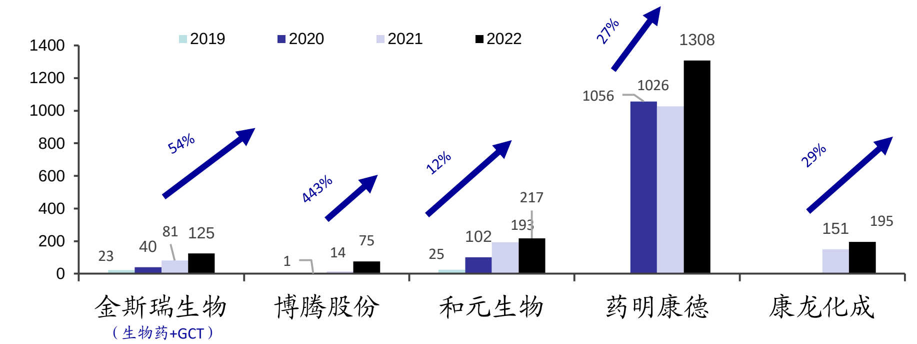
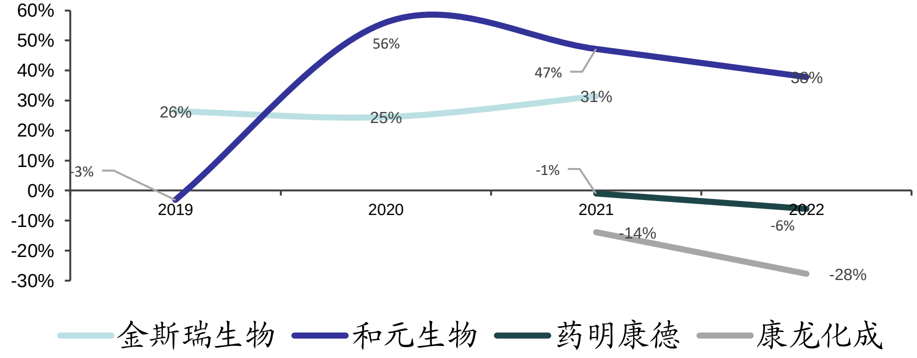
CGT CDMO：22年整体呈现高速增长态势

- 金斯瑞2022年CGT CDMO收入1.25亿美元（+54%），经调整毛利0.43亿美元，经调整毛利率34.24%。
- 博腾股份2022年CGT CDMO收入0.75亿元（+443%）。
- 和元生物2022年CGT CDMO收入0.22亿元。
- 药明康德2022年CGT CDMO收入13.08亿元(+27%)，经调整毛利-0.80亿元，毛利率-6.12%。
- 康龙化成2022年CGT CDMO收入1.95亿元（+29%），毛利-0.54亿元，毛利率-27.70%。

图：各公司CGT CDMO业务收入及21-22年同比增速（单位：百万元，金斯瑞单位为百万美元）



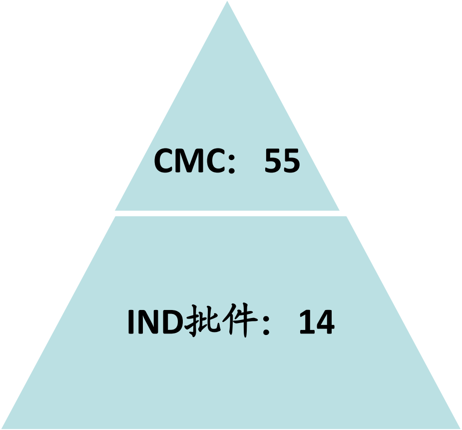
图：各公司CGT CDMO业务毛利率



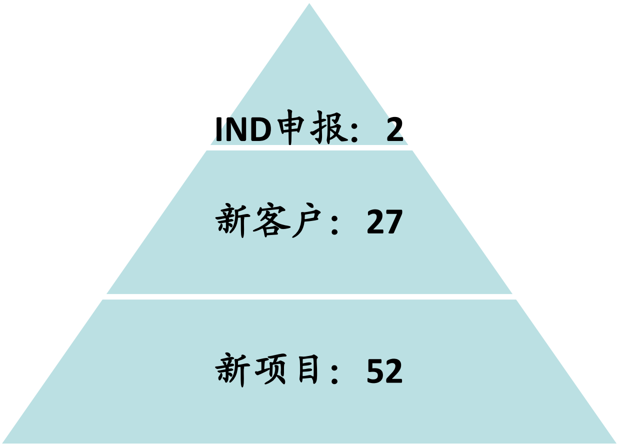
资料来源：Wind，HTI

CGT CDMO：订单金额保持增长

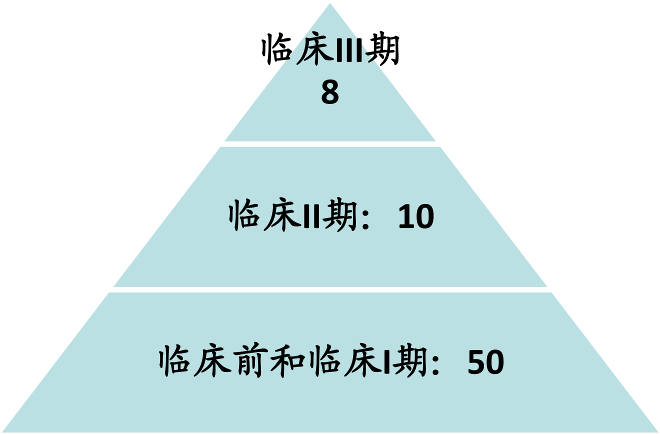
- 金斯瑞2022年订单金额1603百万元，同比增长18%。
- 博腾股份2022年订单金额159百万元，同比增长25%，新项目52个。
- 药明康德2022年临床前及临床I期50个项目，临床II期10个项目，临床III期8个项目



金斯瑞生物CGT CDMO
2022年新获项目（个）



博腾股份CGT CDMO
2022年新获项目（个）



药明康德CGT CDMO项目（个）
（截止2022年底）

资料来源：金斯瑞2022年年报，博腾股份2022年年报，药明康德2022年业绩简报，HTI

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上游赛道短期受到行业投融资寒冬影响，需要自下而上寻找具备α的公司

- 上游赛道的业绩增速出现一定分化。

（1）工业端客户占比较高、下游以CDMO、生产阶段为主的，受投融资传导影响较小。

（2）去年同期，有一定新冠业务的，短期业绩增速仍受到新冠收入出清的扰动。

我们认为，以临床前CRO为主要业务的模式动物，受biotech投融资影响最大，较为适合作为行业景气度恢复的前瞻指标。

赛道	公司	22年收入	22收入yoy	22年毛利率	23Q1收入	23Q1收入yoy	23Q1毛利率	备注
培养基	奥浦迈	2.94	38%	63.82%	0.68	-7%	65.4%	
	多宁生物	7.98	34%	44.23%	/	/	/	
	澳斯康	0.29	16%	/	/	/	/	仅蛋白抗体培养基
分子砌块	毕得医药	8.34	38%	44.11%	2.52	42%	43.51%	
	皓元医药	2.46	78%	/	/	/	/	仅分子砌块
	药石科技	3.53	40%	60.16%	/	/	/	仅分子砌块
模式动物	药康生物	5.17	31%	71.29%	1.4	21%	69.21%	
	南模生物	3.03	10%	41.47%	0.87	19%	39.78%	
	百奥赛图	4.06	2.64	53.8%	/	/	/	仅临床前CRO
科研试剂	泰坦科技	26.08	21%	21.83%	6.55	13%	19.88%	
	阿拉丁	3.78	31%	58.65%	0.87	-5%	61.61%	

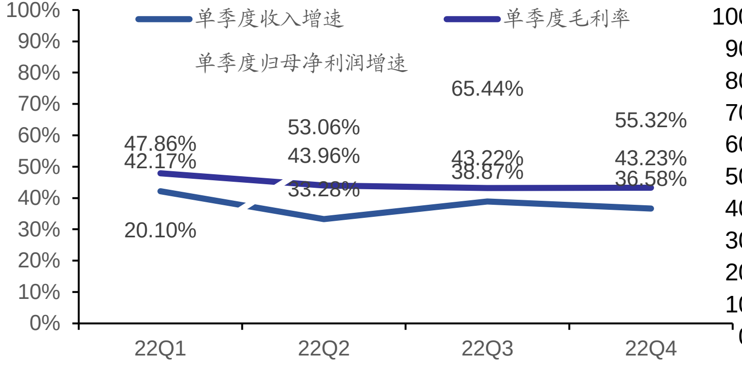
资料来源：Wind，各公司历年年报，HTI

分子砌块：上游受下游投融资影响最小的细分赛道，各家均保持高增速

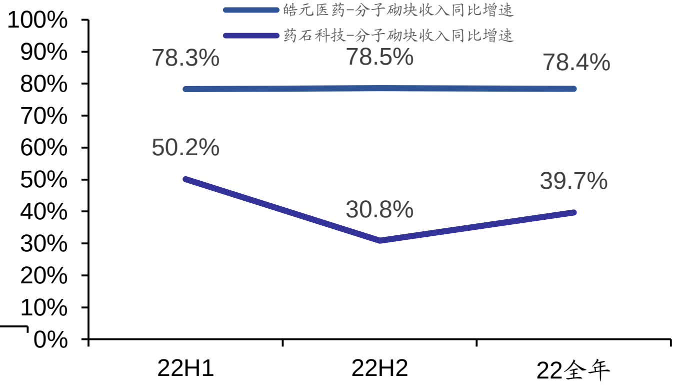
HAITONG 海通國際

- 分子砌块的三家公司，22年收入端均保持较高增速。皓元医药、药石科技的分子砌块也保持较高增速。皓元医药22H1、22H2分子砌块收入分别为78.3%、78.5%。药石科技22H1、22H2分子砌块收入分别为50.2%、30.8%。
- 毛利率略有下滑，我们认为毛利率的下滑受行业竞争的影响。皓元医药分子砌块和工具化合物22H1、22H2毛利率分比为68.28%、61.89%，药石科技22H1、22H2毛利率分别为63.81%、60.16%。

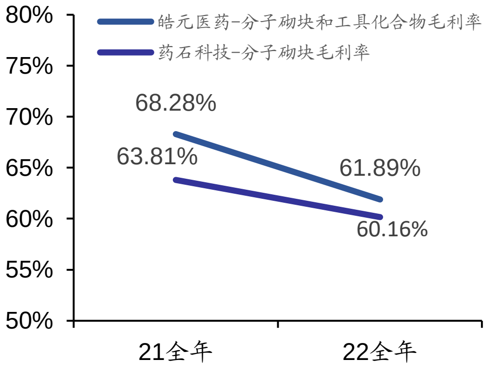
图： 2022年毕得医药单季度收入增速、利润增速及毛利率



图：2022年皓元医药、药石科技分子砌块上下半年收入增速



图：2022年皓元医药、药石科技分子砌块业务毛利率

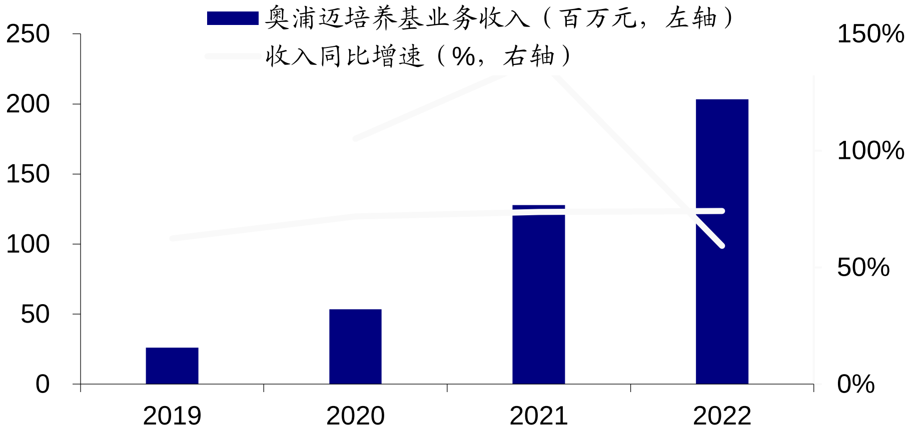


资料来源：Wind，HTI

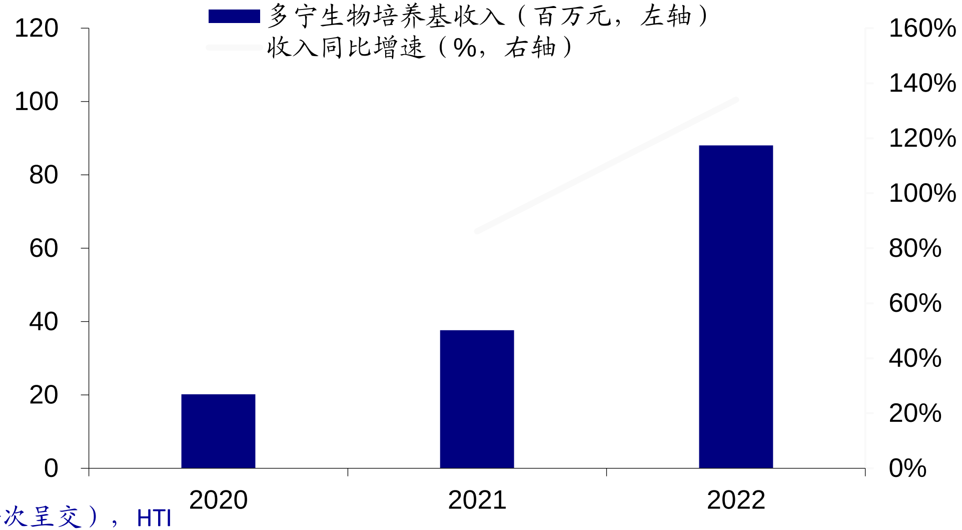
培养基：业务收入高速增长，毛利率提升明显

- 2019-2022年，奥浦迈培养基收入高速增长，22年培养基板块收入增速仍保持59%；培养基毛利率从2019年的62%提升至2022年的74%。
- 2020-2022年，多宁生物培养基收入高速增长，2022年培养基收入同比增速高达134%。

图：2019-2022年奥浦迈培养基业务收入与毛利率



图：2020-2022年多宁生物培养基业务收入与增速

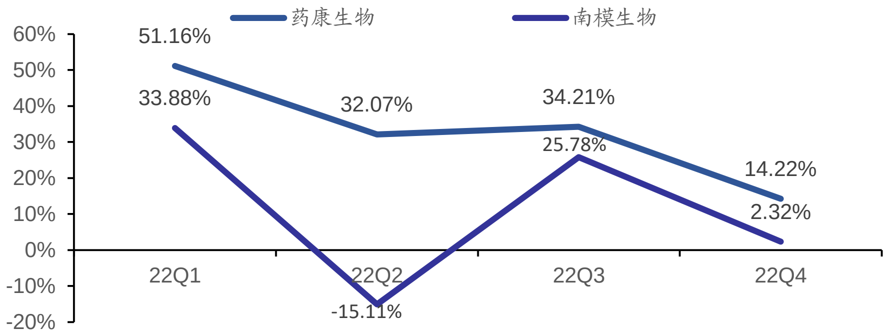


资料来源：奥浦迈2022年年报与招股说明书，多宁生物招股书申请版本（第一次呈交），HTI

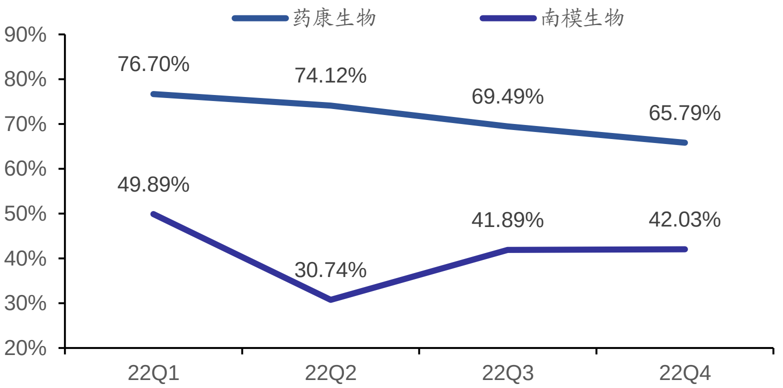
模式动物：22年行业内外利空较多，投融资、竞争、疫情多重影响

- 模式动物行业，22年受到行业内外较多利空因素的影响，包括生物医药行业投融资的下行，疫情期间对物流发货以及高校科研活动活跃度的影响，疫情后期的恢复，以及行业内部的竞争加剧。
- 药康生物22Q1-22Q4单季度的收入增速分别为51.16%、32.07%、34.21%、14.22%。南模生物22Q1-22Q4单季度的收入增速分别为33.88%、-15.11%、25.78%、2.32%。
- 药康生物22Q1-22Q4单季度毛利率分别为76.70%、74.12%、69.49%、65.79%。南模生物22Q1-22Q4单季度毛利率分别为49.89%、30.74%、41.89%、42.03%。

图： 2022年药康生物与南模生物单季度收入增速



图：2022年药康生物与南模生物单季度毛利率



资料来源：Wind，HTI

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APPENDIX 1

Summary

Comment: China's engineer dividend is still there, the epidemic disturbance gradually clear, China's leading CXO competitiveness in the long term

We believe that 2022 is a year in which CXO's short- to medium- and long-term logic is put to the test, with short-term perturbations by new crown-related revenue, or fluctuations in apparent revenue profit growth in 22 and 23 years; from a medium- to long-term perspective, the decline in biopharmaceutical investment and financing has an impact on the demand side, and geopolitical events such as trade frictions between China and the U.S. also have a potential adverse impact on the development of China's CXO industry.

In 2023, the fundamental logic of CXO is expected to be positive:

(1) CXO valuation has fallen back to the bottom position, and we believe that the year-on-year growth rate of each company's performance in 2023 is expected to be upward quarter by quarter based on the single-quarter performance base change in 2022;

(2) New crown-related revenue will gradually clear out, and the continued birth of large variety of drugs brings stability of performance growth for head CDMOs; (3) Biopharmaceutical investment and financing is expected to recover after the Fed ends its rate hike. The multinational big pharmaceutical companies are the base plate of global R&D expenses, which are less affected by investment and financing, and the head CXO companies are better able to cut into the supply chain of big pharmaceutical companies; (4) the outsourcing rate of global CXO is still rising, and the global market share of Chinese CXO is rising, and the Chinese engineer dividend is still there.

Risk tips: uncertainty of R&D investment in pharmaceutical industry, risk of loss of core customers, risk of poor order execution.

APPENDIX 2

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优于大市，未来12-18个月内预期相对基准指数涨幅在10%以上，基准定义如下
中性，未来12-18个月内预期相对基准指数变化不大，基准定义如下。根据FINRA/NYSE的评级分布规则，我们会将中性评级划入持有这一类别。
弱于大市，未来12-18个月内预期相对基准指数跌幅在10%以上，基准定义如下
各地股票基准指数：日本 – TOPIX, 韩国 – KOSPI, 台湾 – TAIEX, 印度 – Nifty100, 美国 – SP500; 其他所有中国概念股 – MSCI China.

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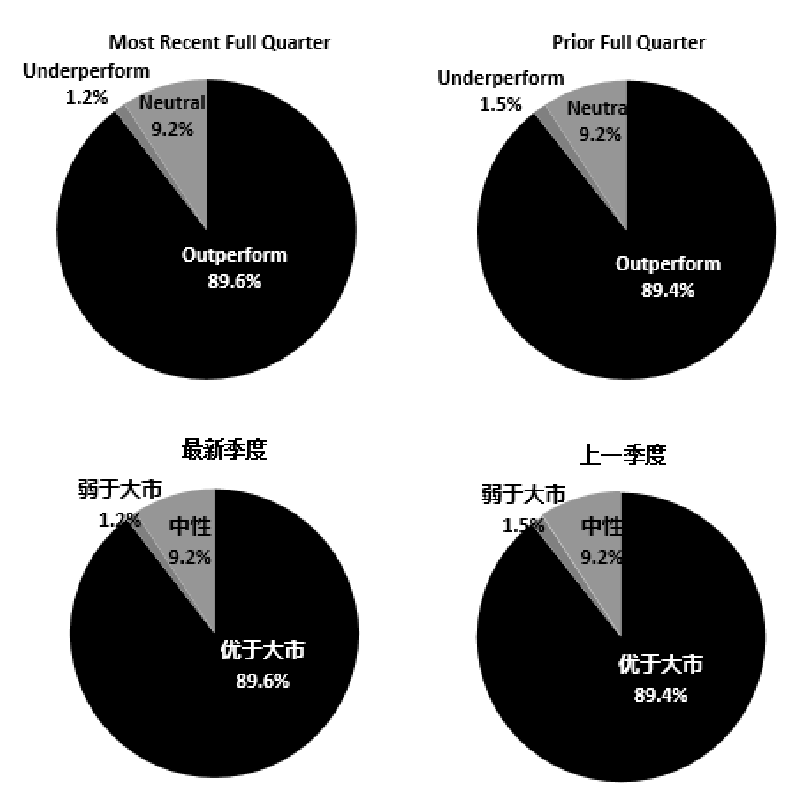
评级分布Rating Distribution



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截至2023年3月31日海通国际股票研究评级分布

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*在每个评级类别里投资银行客户所占的百分比。
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卖出，未来12-18个月内预期相对基准指数跌幅在10%以上，基准定义如下
各地股票基准指数：日本 – TOPIX, 韩国 – KOSPI, 台湾 – TAIEX, 印度 – Nifty100; 其他所有中国概念股 – MSCI China.

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	Outperform	Neutral (hold)	Underperform
HTI Equity Research Coverage	89.6%	9.2%	1.2%
IB clients*	5.2%	6.4%	9.5%

*Percentage of investment banking clients in each rating category.
BUY, Neutral, and SELL in the above distribution correspond to our current ratings of Outperform, Neutral, and Underperform.
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地址: 1203A, Floor 12A, Tower 2A, One World Center
841 Senapati Bapat Marg, Elphinstone Road, Mumbai 400 013, India
CIN U74140MH2011FTC224070
电话: +91 22 43156800 传真:+91 22 24216327
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Name of the entity: Haitong Securities India Private Limited

SEBI Research Analyst Registration Number: INH000002590

APPENDIX 2

Address : 1203A, Floor 12A, Tower 2A, One World Center

841 Senapati Bapat Marg, Elphinstone Road, Mumbai 400 013, India

CIN U74140MH2011FTC224070

Ph: +91 22 43156800 Fax:+91 22 24216327

Details of the Compliance Officer and Grievance Officer : Prasanna Chandwaskar : Ph: +91 22 43156803; Email id: prasanna.chandwaskar@htisec.com

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