

首次覆盖：内外兼修，大数据龙头有望把握 AI+信创机遇

688031 CH
Transwarp Technology(Shanghai)
Rating: OUTPERFORM
Target Price: Rmb76.38

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投资要点：

- **公司营收保持稳健增长，软件产品与技术服务占比超 80%**。2022 年营收 3.73 亿元，同比增长 12.62%；归母净利润-2.71 亿元，同比下降 10.90%。2023 年前 3 季度营收 2.23 亿元，同比增长 30.05%；归母净利润-2.69 亿元，同比下降 19.15%。2022 年年报数据分产品看，软件产品与技术服务营收 2.98 亿元，占比 80.03%，同比增长 16.29%；应用与解决方案 0.61 亿元，占比 16.41%，同比增长 12.29%；软硬一体产品及服务 0.13 亿元，占比 3.56%，同比下降 33.58%。分地域看，占比前三的为华东、华北和华南，比值分别为 37.97%，31.07%，12.94%，合计 81.98%。
- **顺应产业趋势，打造产品多模态、智能化、敏捷化和平民化。**

针对大数据和云基础平台产品线：①公司发布了大数据基础平台 TDH9.3，一份数据可以满足数据湖的离线/实时接入、数据仓库复杂加工以及数据集市的分析需求；②TDH9.3 全新发布了向量模型存储，支持 11 种模型数据统一存储管理，并支持使用统一查询处理语言完成跨模型数据流转和关联分析；③云原生分布式向量数据库 Transwarp Hippo 支持存储、索引及管理海量的向量式数据集；④数据云平台 TDC 推出 3.2 版本，支持 TDH 升级到 TDC 上。

针对大数据开发和智能化分析工具产品线：①数据要素流通产品 Navier3.1 让数据流通更便利、更安全、更可控，其中交易门户 Datamall 打造数据资产目录平台；②安全沙箱 Sandbox，打造封闭、隔离的数据开发分析环境，开发人员在安全隔离的环境下进行分析计算；③隐私计算平台 Sophon P²C 2.0 保证在各个环节数据可用不可见；④数据安全防护工具 Defensor4.0 引入大模型用来解决分类分级中短文本语义语境识别率低的问题；⑤大模型训练工具 Sophon LLMops，帮助企业用户基于大模型构建未来应用。

针对分布式关系型数据库产品线：①分布式分析型数据库 ArgoDB6.0 进一步强化了实时分析能力，构建安全高效的国产化多模引擎，可以在批处理和 OLAP、Adhoc 分析等场景，替代 Oracle、DB2、Teradata、SAPHANA 等国外产品；②分布式交易型数据库 KunDB3.2 可以在交易型 OLTP 的业务场景、高并发在线数据服务场景等，替代 Oracle/DB2/MySQL。

主要财务数据及预测

	2021	2022	2023E	2024E	2025E
营业收入(百万元)	331	373	534	769	1117
(+/-)YoY(%)	27.3%	12.6%	43.2%	44.1%	45.2%
净利润(百万元)	-245	-271	-271	-195	4
(+/-)YoY(%)	-32.7%	-10.9%	0.0%	28.2%	102.0%
全面摊薄 EPS(元)	-2.02	-2.25	-2.24	-1.61	0.03
毛利率(%)	58.9%	56.5%	58.0%	59.7%	61.5%
净资产收益率(%)	-39.6%	-15.9%	-18.5%	-15.3%	0.3%

资料来源：公司年报(2021-2022)，HTI

备注：净利润为归属母公司所有者的净利润

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AI 方面的进展：①人工智能大模型产业链分为 6 层：基础算力、大数据分析底座、通用大模型、开发工具、领域大模型、效率工具。除基础算力和通用大模型之外，公司均有布局，包含分布式向量数据库 Hippo、大模型运营管理软件 Sophon LLMOps、无涯大模型、求索大模型、大模型编码助手、业务洞察分析助手、主管数据管理助手等。②生成式大语言模型“无涯”面向金融行业，实现了从事件理解到事件传播到因子计算到策略生成的完整链路；大数据领域大模型“求索”让非专业用户在不需要学习和掌握数据库编程语言的前提下通过自然语言自由地按需查询数据。③开发了支持大模型运维（LLMOPs）的运维平台 Sophon LLMOPs。

● **内外兼修，向外完善生态建设，向内健全人才体系。**

公司详细制订公司合作伙伴架构体系，根据不同类型的合作伙伴（例如行业 ISV、CPU 厂商、整机硬件厂商、操作系统/云及通用软件厂商、区域经销商等）制定不同的合作策略及方法，成功开拓了数十家金融、教育、交通、医疗、能源、政府等行业 ISV 和区域经销商，与华为存储、华为鲲鹏、微软、统信、麒麟、飞腾、神州鲲泰、曙光、澜起等主要软硬件厂家都进行了产品层面的深度适配。

截至 2023 年 6 月 30 日，公司员工超 1100 名，其中研发人员超过 30%。公司通过有竞争力的薪酬体系、人性化的管理方式吸引和留住优秀人才，并推出了 2023 年限制性股票激励计划，覆盖员工 200 人，有效地将员工的切身利益与公司的发展进行捆绑，有利于提升核心团队的凝聚力与战斗力，为公司健康、持续、高质量发展提供强劲动力。

● **事件催化信创亟待启动，身处大赛道公司有望受益。**

根据艾媒咨询预测，随着数字化及国产替代浪潮涌动，基础软件迎来高速发展，数据库作为关键环节迎来黄金发展期。中国数据库市场 2022 年市场规模达到 320 亿元，2025 年预计达到 630 亿元，CAGR 为 25.33%。

近期一系列事件及政策刺激信创发展。①2023 年 12 月 20 日，证监会同意武汉达梦数据库股份有限公司首次公开发行股票的首次公开发行股票注册申请。②2023 年 12 月 26 日，财政部-工业和信息化部发布台式计算机、工作站、服务器、数据库和操作系统等采购需求标准通知，该通知是 2023 年 8 月份征求意见稿落地。③财政部副部长王东伟 2024 年 2 月 1 日表示，将用好财政补贴、贷款贴息、税收优惠等政策工具，推动解决好基础产品、核心技术、关键软件等方面的难点堵点问题。

● **盈利预测和投资建议：**2023 年 3 月 14 日，公司发布《2023 年限制性股票激励计划实施考核管理办法》，对于营业收入的考核目标为：以 2021 年营业收入为基数，2023 年营业收入增长率不低于 60%；2024 年营业收入增长率不低于 125%；2025 年营业收入增长率不低于 200%。此外，达到触发值，公司层面也可获得归属比例 80%：以 2021 年营业收入为基数，2023 年营业收入增长率不低于 48%；2024 年营业收入增长率不低于 100%；2025 年营业收入增长率不低于 160%。

我们认为面临行业人工智能，以及产品敏捷化、平民化改进影响，公司产品也在向多模态、智能化、敏捷化、平民化迭代。公司内外兼修，向外持续完善生态建设，构建合作伙伴架构体系，不同合作伙伴采取不同合作策略，向内健全人才体系，推出股票激励计划。除此之外，信创亟待启动，公司身处数据库大赛道有望受益。在此背景下，我们认为公司 23-25 年有望达到股权激励的目标值，公司主要收入构成为软件产品与技术服务，其他业务占比较小。结合股权激励目标，我们预计 23-25 年，公司软件产品与技术服务收入增速分别为 45%，46.5%，47.8%；公司营业收入增速分别为 43.22%，44.12%，45.17%。公司软件产品与技术服务毛利率不断提升，23-25 年分别为 68.75%，69.75%，70.75%；公司整体毛利率为 57.96%，59.67%，61.53%。

我们预计公司 2023-2025 年营业收入分别为 5.34/7.69/11.17 亿元，归母净利润分别为-2.71/-1.95/0.04 亿元，对应 EPS 分别为-2.24/-1.61/0.03 元。结合目前行业阶段和公司增速及壁垒，给予公司 2024 年 PS12 倍，6 个月目标价 76.38 元，给予“优于大市”评级。

- **风险提示：**产品迭代速度不及预期；市场竞争加剧；应收账款占比较高。

表 1 可比公司估值表

代码	简称	总市值 (亿元)	营业收入 (亿元)			PS (倍)		
			2023E	2024E	2025E	2023E	2024E	2025E
SNOW.US	Snowflake Inc.	5108	201.87	272.25	360.29	25.30	18.76	14.18
MDB.US	MongoDB, Inc.	2241	119.5	145.05	182.22	18.75	15.45	12.30
688152.SH	麒麟信安	34	5.12	6.76	8.83	6.63	5.02	3.84
688435.SH	英方软件	27	2.88	4.34	6.58	9.52	6.32	4.17
	行业平均	1853	82.34	107.10	139.48	15.05	11.39	8.62
688031.SH	星环科技	53	5.34	7.69	11.17	9.90	6.87	4.73

资料来源：ifind，HTI
注：数据更新至 2024 年 2 月 21 日

表 2 公司业务分拆（百万元）

		2022	2023E	2024E	2025E
软件产品与技术服务	营收	298.20	432.39	633.45	936.24
	同比 (%)	16.29%	45.00%	46.50%	47.80%
	毛利率	67.75%	68.75%	69.75%	70.75%
应用与解决方案	营收	61.16	85.62	118.15	160.69
	同比 (%)	12.29%	40.00%	38.00%	36.00%
	毛利率	3.84%	5.84%	7.84%	9.84%
软硬一体产品与服务	营收	13.27	15.66	17.54	19.64
	同比 (%)	-33.58%	18.00%	12.00%	12.00%
	毛利率	47.49%	45.00%	45.00%	45.00%
总计	营收	372.62	533.67	769.14	1116.57
	同比 (%)	12.62%	43.22%	44.12%	45.17%
	毛利率	56.54%	57.96%	59.67%	61.53%

资料来源：ifind，HTI

公司是一家企业级大数据基础软件开发商，围绕数据的集成、存储、治理、建模、分析、挖掘和流通等数据全生命周期提供基础软件及服务，已形成大数据与云基础平台、分布式关系型数据库、数据开发与智能分析工具的软件产品矩阵，支撑客户及合作伙伴开发数据应用系统和业务应用系统，助力客户实现数字化转型。公司的软件产品化程度较高，可以在不同行业实现广泛布局和快速复制。公司产品具备长期稳定的潜在需求，已在金融、政府、能源、交通、制造业等众多主要国民经济支柱领域得到广泛应用。公司基于分布式架构的大数据基础平台、分析型数据库产品已达到业界先进水平，相关产品已通过国际知名组织 TPC 的 TPC-DS 基准测试并通过了官方审计，公司也是该基准测试自 2006 年标准发布以来，全球首个通过官方审计的软件厂商。公司的实力获得国际知名分析机构的认可，2016 年 2 月，公司被 Gartner 选入数据仓库及数据管理分析魔力象限，位于远见者象限，在前瞻性维度上优于 Cloudera、Hortonworks 等美国主流大数据平台厂商，是 Gartner 发布该魔力象限以来首个进入该魔力象限的中国公司。2020 年，根据 IDC《MarketScape：中国大数据管理平台厂商评估，2020》，公司在关键战略、关键能力等维度评价综合能力排名市场第四，是中国大数据管理平台市场的领导者。

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附表 前十大股东：

股东名称	占总股本比例(%)
孙元浩	9.2400
林芝利创信息技术有限公司	8.7700
上海赞星投资中心(有限合伙)	6.2400
产业投资基金有限责任公司	5.5900
范磊	5.0200
上海云友投资事务所	3.6700
苏州方广创业投资合伙企业(有限合伙)	3.3100
苏州启明融合创业投资合伙企业(有限合伙)	3.2300
湖北省长江合志股权投资基金管理有限公司-湖北省长江合志股权投资基金合伙企业(有限合伙)	3.1900
北京新鼎荣盛资本管理有限公司-青岛新鼎啃哥柒号股权投资合伙企业(有限合伙)	2.4000
合 计	50.6600

财务报表分析和预测

主要财务指标	2022	2023E	2024E	2025E	利润表 (百万元)	2022	2023E	2024E	2025E
每股指标 (元)					营业总收入	373	534	769	1117
每股收益	-2.25	-2.24	-1.61	0.03	营业成本	162	224	310	430
每股净资产	14.16	12.12	10.51	10.54	毛利率%	56.5%	58.0%	59.7%	61.5%
每股经营现金流	-2.48	-2.43	-2.52	-1.35	营业税金及附加	2	4	5	7
每股股利	0.00	0.00	0.00	0.00	营业税金率%	0.5%	0.7%	0.7%	0.6%
价值评估 (倍)					营业费用	205	251	293	314
P/E	-19.47	-19.48	-27.12	1327	营业费用率%	55.1%	47.1%	38.1%	28.1%
P/B	3.09	3.61	4.16	4.15	管理费用	121	147	166	163
P/S	14.18	9.90	6.87	4.73	管理费用率%	32.6%	27.6%	21.6%	14.6%
EV/EBITDA	-42.58	-16.71	-25.76	208.33	EBIT	-282	-272	-196	4
股息率%	0.0%	0.0%	0.0%	0.0%	财务费用	-1	0	0	0
盈利能力指标 (%)					财务费用率%	-0.3%	0.0%	0.0%	0.0%
毛利率	56.5%	58.0%	59.7%	61.5%	资产减值损失	-4	0	0	0
净利润率	-72.8%	-50.8%	-25.3%	0.4%	投资收益	9	21	27	39
净资产收益率	-15.9%	-18.5%	-15.3%	0.3%	营业利润	-273	-272	-196	4
资产回报率	-13.9%	-14.7%	-10.7%	0.2%	营业外收支	0	0	0	0
投资回报率	-16.2%	-17.5%	-13.7%	0.3%	利润总额	-272	-272	-196	4
盈利增长 (%)					EBITDA	-252	-255	-178	23
营业收入增长率	12.6%	43.2%	44.1%	45.2%	所得税	0	0	0	0
EBIT 增长率	-8.0%	3.6%	28.1%	102.0%	有效所得税率%	0.0%	0.0%	0.0%	0.0%
净利润增长率	-10.9%	0.0%	28.2%	102.0%	少数股东损益	-1	-1	-1	0
偿债能力指标					归属母公司所有者净利润	-271	-271	-195	4
资产负债率	12.3%	20.9%	30.4%	37.5%					
流动比率	10.14	5.75	3.88	3.09	资产负债表 (百万元)	2022	2023E	2024E	2025E
速动比率	9.71	5.38	3.52	2.73	货币资金	283	657	420	340
现金比率	1.53	2.15	0.95	0.55	应收账款及应收票据	242	309	456	667
经营效率指标					存货	49	68	95	130
应收账款周转天数	199.29	183.79	177.33	179.39	其它流动资产	1300	721	743	781
存货周转天数	101.87	93.75	94.36	94.27	流动资产合计	1874	1754	1715	1919
总资产周转率	0.27	0.28	0.42	0.58	长期股权投资	0	0	0	0
固定资产周转率	22.59	29.42	46.36	80.75	固定资产	19	18	16	12
					在建工程	0	1	1	2
					无形资产	0	0	0	0
					非流动资产合计	74	93	104	112
现金流量表 (百万元)	2022	2023E	2024E	2025E	资产总计	1947	1847	1818	2031
净利润	-271	-271	-195	4	短期借款	0	40	80	120
少数股东损益	-1	-1	-1	0	应付票据及应付账款	50	68	94	131
非现金支出	39	17	18	19	预收账款	0	0	0	0
非经营收益	-9	-21	-27	-39	其它流动负债	134	197	268	370
营运资金变动	-58	-17	-99	-147	流动负债合计	185	305	442	620
经营活动现金流	-300	-293	-304	-163	长期借款	0	30	60	90
资产	-31	-40	-29	-27	其它长期负债	54	50	50	50
投资	-801	600	0	0	非流动负债合计	54	80	110	140
其他	9	25	27	39	负债总计	239	385	553	761
投资活动现金流	-822	585	-2	12	实收资本	121	121	121	121
债权募资	0	60	70	70	归属于母公司所有者权益	1711	1465	1270	1274
股权募资	1376	25	0	0	少数股东权益	-3	-4	-4	-4
其他	-54	-3	0	0	负债和所有者权益合计	1947	1847	1818	2031
融资活动现金流	1321	81	70	70					
现金净流量	199	374	-236	-81					

备注: (1) 表中计算估值指标的收盘价日期为 02 月 21 日; (2) 以上各表均为简表

资料来源: 公司年报 (2022), HTI

APPENDIX 1

Summary

Investment Highlights:

The company's revenue grew steadily, with software products and services exceeding 80%. In 2022, revenue reached RMB 373 million, up 12.62% YoY; net profit attributable to shareholders was -RMB 271 million, down 10.90% YoY. In the first three quarters of 2023, revenue was RMB 223 million, up 30.05% YoY; net profit attributable to shareholders was -RMB 269 million, down 19.15% YoY. By product, software products and services revenue was RMB 298 million, 80.03% of total, up 16.29% YoY; applications and solutions were RMB 61 million, 16.41% of total, up 12.29% YoY; integrated products and services were RMB 13 million, 3.56% of total, down 33.58% YoY. Geographically, East, North, and South China were the top three regions, accounting for 37.97%, 31.07%, and 12.94% respectively, totaling 81.98%. The company adapts to industry trends, focusing on multimodal, intelligent, agile, and accessible product development.

For big data and cloud platforms: (1) TDH9.3 was released, (2) TDH9.3 introduced vector model storage, (3) Transwarp Hippo supports massive vector data sets, (4) TDC 3.2 version supports TDH upgrades. For big data development and analytics tools: (1) Navier3.1 improves data circulation, (2) Sandbox ensures a secure development environment, (3) Sophon 2.0 ensures data privacy, (4) Defensor4.0 tackles short text semantic recognition, (5) Sophon LLMOps aids in building future applications. For distributed relational databases: (1) ArgoDB6.0 enhances real-time analytics, (2) KunDB3.2 replaces foreign products in various scenarios.

Earnings Forecast and Investment Advice: On March 14, 2023, the company announced its equity incentive plan with revenue growth targets of at least 60% in 2023, 125% in 2024, and 200% in 2025 based on 2021 revenue. The company aims to meet these targets, with software products and services as the main revenue driver. We project revenue growth for software products and services at 45%, 46.5%, and 47.8% for 2023-2025, and overall revenue growth at 43.22%, 44.12%, and 45.17% respectively. Gross profit margins for software products and services are expected to be 68.75%, 69.75%, and 70.75% for 2023-2025, with overall gross profit margins at 57.96%, 59.67%, and 61.53%. We forecast revenue of RMB 534/769/1117 million and net profit attributable to shareholders of -RMB 271/-195/4 million for 2023-2025, with EPS at -RMB 2.24/-1.61/0.03. Considering the industry stage and company growth, we give a 12x PS ratio for 2024 and a 6-month target price of RMB 76.38, with an "Outperform" rating.

Risk Warning: Product iteration slower than expected; increased market competition; high proportion of accounts receivable.

附录 APPENDIX

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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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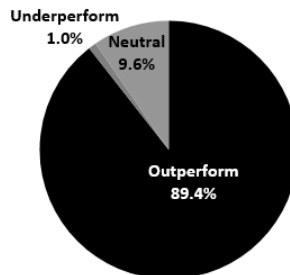
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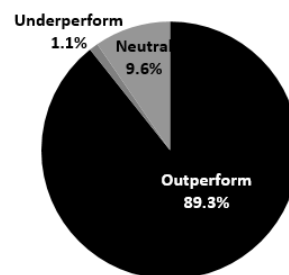
Outperform: The stock's total return over the next 12-18 months is

评级分布 Rating Distribution

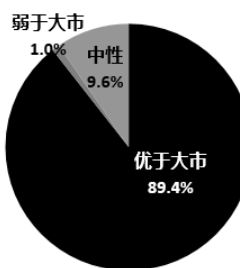
Most Recent Full Quarter



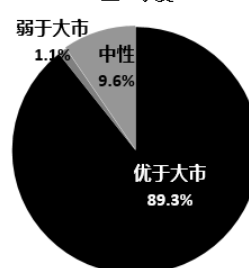
Prior Full Quarter



最新季度



上一季度



expected to exceed the return of its relevant broad market benchmark, as indicated below.

Neutral: The stock's total return over the next 12-18 months is expected to be in line with the return of its relevant broad market benchmark, as indicated below. For purposes only of FINRA/NYSE ratings distribution rules, our Neutral rating falls into a hold rating category.

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Benchmarks for each stock's listed region are as follows: Japan – TOPIX, Korea – KOSPI, Taiwan – TAIEX, India – Nifty100, US – SP500; for all other China-concept stocks – MSCI China.

截至 2023 年 12 月 31 日海通国际股票研究评级分布

	优于大市	中性 (持有)	弱于大市
海通国际股票研究覆盖率	89.4%	9.6%	1.0%
投资银行客户*	3.9%	5.1%	5.6%

*在每个评级类别里投资银行客户所占的百分比。

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买入，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

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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
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IB clients*	3.9%	5.1%	5.6%

*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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Previous rating system definitions (until 30 Jun 2020):

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NEUTRAL: The stock's total return over the next 12-18 months is expected to be in line with the return of its relevant broad market benchmark, as indicated below. For purposes only of FINRA/NYSE ratings distribution rules, our Neutral rating falls into a hold rating category.

SELL: The stock's total return over the next 12-18 months is expected to be below the return of its relevant broad market benchmark, as indicated below.

Benchmarks for each stock's listed region are as follows: Japan – TOPIX, Korea – KOSPI, Taiwan – TAIEX, India – Nifty100; for all other China-concept stocks – MSCI China.

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