

分析师覆盖度因子改进

——《因子选股系列研究之八十四》

研究结论

- 在之前的报告《稳健易算的分析师盈利上调因子》中，我们对分析师盈利预测调整因子进行了优化，本篇报告我们继续对分析师数据的研究，重点针对分析师覆盖度因子进行优化改进。
- 2006 年至 2021 年，分析师发布的报告总数从 36104 篇上升至 218993 篇。2022 年前 7 个月报告数量超过 14 万篇，日均报告达 600 篇。点评报告数量居首，占比达到 60%以上。3、4、8、10 月个股报告占比更高。
- 常规的分析师覆盖度因子（cov）使用分析师对标的公司出具的研报总数或机构数量来计算。因子当前在中证全指中覆盖度 55%，中证 800 内覆盖 90%。
- 全指中，行业市值中性化后的分析师覆盖度因子，虽然 IC 均值较高，但稳定性较差，多头端表现不佳。21 年开始因子收益出现较大回撤，多空组合 2021 年和 2022 年单年收益为 6%和-2%。多头端表现更差，最近两年收益均在-6%左右。在中证 800 中因子整体表现更弱。
- 公告后分析师覆盖度因子（anncov）：公告后个股获得的分析师报告越多，越可能说明该公司此次公告的业绩超预期。过去 6 个月内有公告且 7 天内有至少一篇分析师报告的股票，当前在中证全指中的覆盖度接近 50%，在中证 800 成分内覆盖度在 85%左右。
- 加入业绩预告、快报后，anncov 因子表现进一步提升。相同计算周期下，anncov 因子表现均优于 cov 因子。anncov 因子在大票、机构重仓股中优势更明显。在食品饮料、电力设备、国防军工、医药生物、周期等热门行业中均优于 cov 因子。因子多头端表现在各股票池中均占优。
- 分析师首次覆盖度因子（firstcov）：分析师在研报中首次覆盖、长期未关注后重新覆盖、首次给予评级，都可能说明公司基本面出现好转或者分析师看好公司未来的发展前景。过去 6 个月内有机构首次覆盖的股票，当前在中证全指中占比 45%，在中证 800 内占比 77%。
- firstcov 因子在小票、低机构持仓组中优势更明显。在中证全指中因子多空组合年化收益相比 cov 因子能提升 1%，多头组合提升 2%。2021 年以来因子表现优势明显，最近两年相比 cov 因子单年收益提升 10%。在食品饮料和周期行业中表现优于 cov 因子。因子多头端表现在各股票池中均占优。
- 不能被机构持仓占比解释的分析师覆盖度因子：分析师已开始覆盖，但机构尚未重点关注的股票可能处于行情起步阶段，未来可能有突出表现。使用常规分析师覆盖度因子对最新机构持仓比例正交化来构造新因子。
- cov_ortho_inshold 因子优势在于多空组合稳定性好，夏普比高，回撤小，多头组合收益高。中证全指中 2021 年开始因子多空组合表现明显占优，近两年相比 cov 因子单年收益提升 5%。在高持仓分组中因子优势更加明显。在食品饮料、电力设备、周期行业中，因子表现优于 cov 因子。

风险提示

量化模型失效风险
市场极端环境的冲击

报告发布日期

2022 年 08 月 23 日

证券分析师

王星星 021-63325888*6108
wangxingxing@orientsec.com.cn
执业证书编号：S0860517100001

刘静涵 021-63325888*3211
liujinghan@orientsec.com.cn
执业证书编号：S0860520080003

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目 录

一、	分析师研报数据概况	5
二、	原始分析师覆盖度因子表现	7
三、	分析师覆盖度因子改进思路	10
四、	公告后分析师覆盖度因子表现	14
	(1) 年报、快报、预告数据的影响	14
	(2) 计算周期的选择	14
	(3) 股票池的影响	15
	(4) 因子时间序列表现	18
	(5) 因子分组收益	20
	(6) 因子相关性	20
五、	分析师首次覆盖度因子表现	22
	(1) 计算周期的选择	22
	(2) 股票池的影响	22
	(3) 因子时间序列表现	26
	(4) 因子分组收益	28
	(5) 因子相关性	28
六、	不能被机构持仓占比解释的分析师覆盖度因子	30
	(1) 股票池的影响	30
	(2) 因子时间序列表现	33
	(3) 因子分组收益	35
	(4) 因子相关性	35
七、	总结	37
	风险提示	39

图表目录

图 1: 朝阳永续分析师报告数量分年统计	5
图 2: 朝阳永续分析师报告占比分年统计	5
图 3: 朝阳永续分析师报告占比分月统计	6
图 4: 朝阳永续盈利预测、目标价数据覆盖度分年统计	6
图 5: 朝阳永续评级分类分年统计	6
图 6: 分析师覆盖度因子在中证全指的覆盖度	7
图 7: 分析师覆盖度因子在中证 800 的覆盖度	7
图 8: 常规分析师覆盖因子表现 (中证全指 & 中证 800)	8
图 9: 常规分析师覆盖因子分组表现 (中证全指 & 中证 800, 按因子值大小从低到高等分 10 组)	8
图 10: 常规分析师覆盖因子多空净值及多头净值表现 (中证全指)	9
图 11: 常规分析师覆盖因子多空净值及多头净值表现 (中证 800 成分内)	9
图 12: 财报公告 (包括季报、快报、预告) 后分析师撰写研报的滞后天数占比分年统计	10
图 13: 公告后分析师覆盖度因子在中证全指中的覆盖度	11
图 14: 公告后分析师覆盖度因子在中证 800 中的覆盖度	11
图 15: 分析师首次覆盖度因子在中证全指中的覆盖度	11
图 16: 分析师首次覆盖度因子在中证 800 中的覆盖度	11
图 17: 公告后分析师首次覆盖度因子在中证全指中的覆盖度	12
图 18: 公告后分析师首次覆盖度因子在中证 800 中的覆盖度	12
图 19: 机构持仓占比情况分年统计 (中证全指)	13
图 20: 机构持仓占比情况分年统计 (中证 300 内)	13
图 21: 机构持仓占比情况分年统计 (中证 500 内)	13
图 22: 机构持仓占比情况分年统计 (中证 1000 内)	13
图 23: 机构持仓占比情况分年统计 (创业板指内)	13
图 24: 公告后分析师覆盖度因子表现 (行业市值中性化, 中证全指, 过去 6 个月, 不同信息源)	14
图 25: 公告后分析师覆盖度因子表现 (行业市值中性化, 中证全指, 不同计算周期)	14
图 26: 公告后分析师覆盖度因子表现 (行业市值中性化, 不同宽基指数)	15
图 27: 公告后分析师覆盖度因子表现 (行业市值中性化, 中证全指内不同机构持仓分组)	16
图 28: 公告后分析师覆盖度因子表现 (行业市值中性化, 中证全指内不同行业)	17
图 29: cov、anncov 因子多空组合净值&回撤 (中性化, 中证全指)	18
图 30: cov、anncov 因子多头组合净值&回撤 (中性化, 中证全指)	18
图 31: cov、anncov 因子多空组合净值&回撤 (中性化, 中证 800)	19
图 32: cov、anncov 因子多头组合净值&回撤 (中性化, 中证 800)	19

图 33: cov、anncov 因子分组年化收益（中性化，中证全指，按因子值大小从低到高等分 10 组）	20
图 34: cov、anncov 因子分组年化收益（中性化，中证 800 内，按因子值大小从低到高等分 10 组）	20
图 35: cov、anncov 因子与常见大类因子的相关性	20
图 36: cov、anncov 因子残差选股表现	21
图 37: 分析师首次覆盖度因子表现（行业市值中性化，中证全指，不同计算周期）	22
图 38: 分析师首次覆盖度因子表现（行业市值中性化，不同宽基指数）	23
图 39: 分析师首次覆盖度因子表现（行业市值中性化，中证全指内不同机构持仓分组）	24
图 40: 分析师首次覆盖度因子表现（行业市值中性化，中证全指内不同行业）	25
图 41: cov、firstcov 因子多空组合净值&回撤（中性化，中证全指）	26
图 42: cov、firstcov 因子多头组合净值&回撤（中性化，中证全指）	26
图 43: cov、firstcov 因子多空组合净值&回撤（中性化，中证 800）	27
图 44: cov、firstcov 因子多头组合净值&回撤（中性化，中证 800）	27
图 45: cov、firstcov 因子分组年化收益（中性化，中证全指，按因子值大小从低到高等分 10 组）	28
图 46: cov、firstcov 因子分组年化收益（中性化，中证 800 内，按因子值大小从低到高等分 10 组）	28
图 47: cov、firstcov 因子与常见大类因子的相关性	28
图 48: cov、firstcov 因子残差选股表现	29
图 49: 不能被机构持仓占比解释的分析师覆盖度因子表现（行业市值中性化，不同宽基指数）	30
图 50: 不能被机构持仓占比解释的分析师覆盖度因子表现（行业市值中性化，中证全指内不同机构持仓分组）	31
图 51: 不能被机构持仓占比解释的分析师覆盖度因子表现（行业市值中性化，中证全指内不同行业）	32
图 52: cov、cov_ortho_inshold 因子多空组合净值&回撤（中性化，中证全指）	33
图 53: cov、cov_ortho_inshold 因子多头组合净值&回撤（中性化，中证全指）	33
图 54: cov、cov_ortho_inshold 因子多空组合净值&回撤（中性化，中证 800）	34
图 55: cov、cov_ortho_inshold 因子多头组合净值&回撤（中性化，中证 800）	34
图 56: cov、cov_ortho_inshold 因子分组年化收益（中性化，中证全指，按因子值大小从低到高等分 10 组）	35
图 57: cov、cov_ortho_inshold 因子分组年化收益（中性化，中证 800 内，按因子值大小从低到高等分 10 组）	35
图 58: cov、cov_ortho_inshold 因子与常见大类因子的相关性	35
图 59: cov、cov_ortho_inshold 因子残差选股表现	36
图 60: 分析师覆盖类因子多空组合净值（行业市值中性化，中证全指）	38
图 61: 分析师覆盖类因子多头组合净值（行业市值中性化，中证全指）	38
图 62: 分析师覆盖类因子多空组合净值（行业市值中性化，中证 800 成分内）	38
图 63: 分析师覆盖类因子多头组合净值（行业市值中性化，中证 800 成分内）	38

有关分析师的申明，见本报告最后部分。其他重要信息披露见分析师申明之后部分，或请与您的投资代表联系。并阅读本证券研究报告最后一页的免责申明。

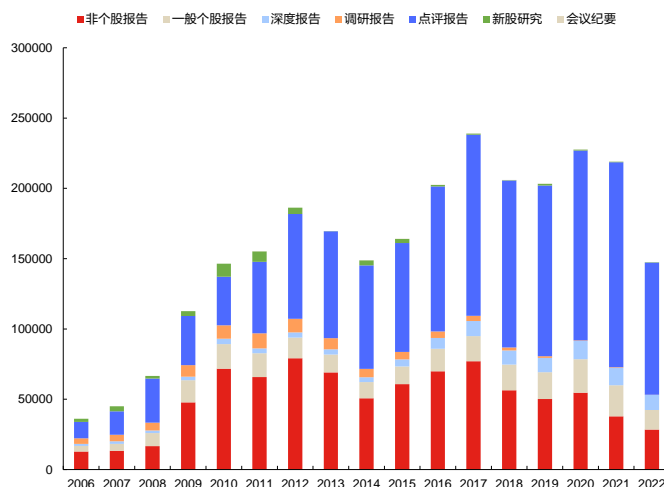
卖方分析师是上市公司和投资者之间的桥梁，会通过发布研究报告的形式给出对公司的投资观点和盈利预测。近年来，分析师研报数据的热度逐渐上升，市场关注度不断提高，已成为投资者重要的信息来源。在之前的报告《稳健易算的分析师盈利上调因子》中，我们对分析师盈利预测调整因子进行了优化，本篇报告我们继续对分析师数据的研究，重点针对分析师覆盖度因子进行优化改进。

一、分析师研报数据概况

本文的研报数据来源于朝阳永续的盈利预测数据库，不限制研报类型（个股报告、策略报告、行业报告、晨会报告均可），仅纳入朝阳永续计算一致预期时用到的机构发布的报告数据，涉及盈利预测时仅考察对年报的预测。回溯区间为 2009.12.31-2022.07.29。

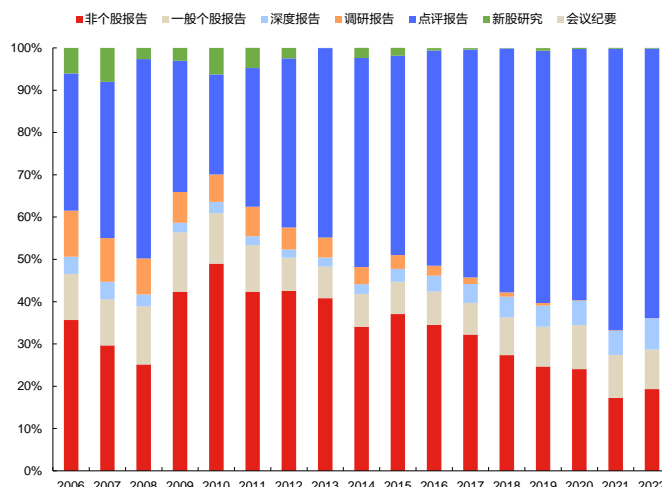
随着国内权益市场的飞速发展，卖方机构数量不断扩张，所发布的研究报告也越来越多。2006 年至 2021 年，分析师发布的报告总数从 36104 篇上升至 218993 篇。2022 年前 7 个月报告数量超过 14 万篇，日均报告达 600 篇。分类别来看，点评报告数量居首且占比不断提高，当前占比达到 60%以上；非个股报告次之占比不断降低，当前占比 19%；一般个股报告、深度报告占比分别仅为 9.38%、7.34%。

图 1：朝阳永续分析师报告数量分年统计



数据来源：东方证券研究所 & 朝阳永续

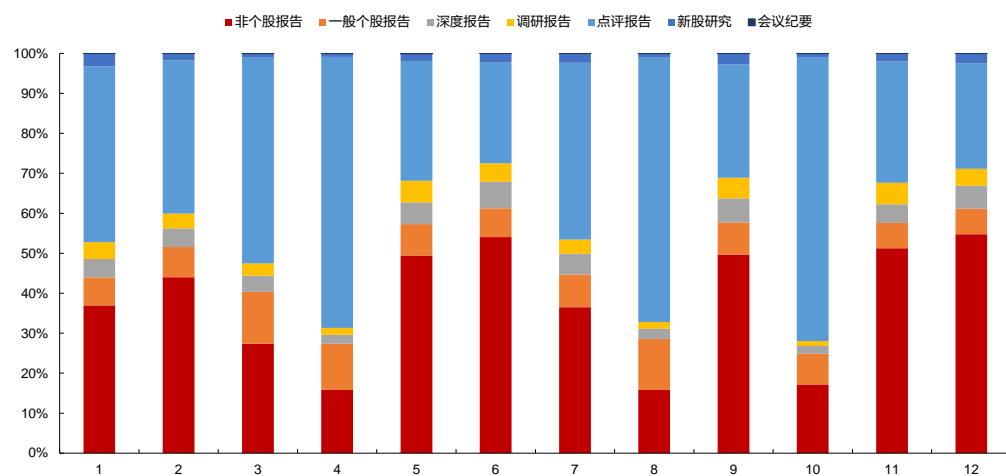
图 2：朝阳永续分析师报告占比分年统计



数据来源：东方证券研究所 & 朝阳永续

从各个月份的报告数量分布来看，3 月、4 月、8 月、10 月的非个股报告占比明显低于其他月份，个股报告占比明显多于其他月份。因为 3、4 月是上市公司集中披露上一年年报、当年一季报的时间点，8 月是集中披露当年中报的时间点，10 月是集中披露当年三季报的时间点。分析师一般在财报发布后会对个股观点和盈利预测数据进行更新。

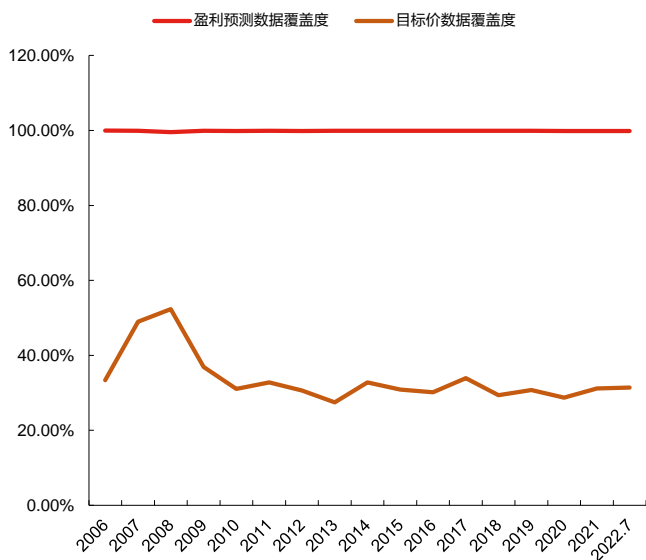
图 3：朝阳永续分析师报告占比分月统计



数据来源：东方证券研究所 & 朝阳永续

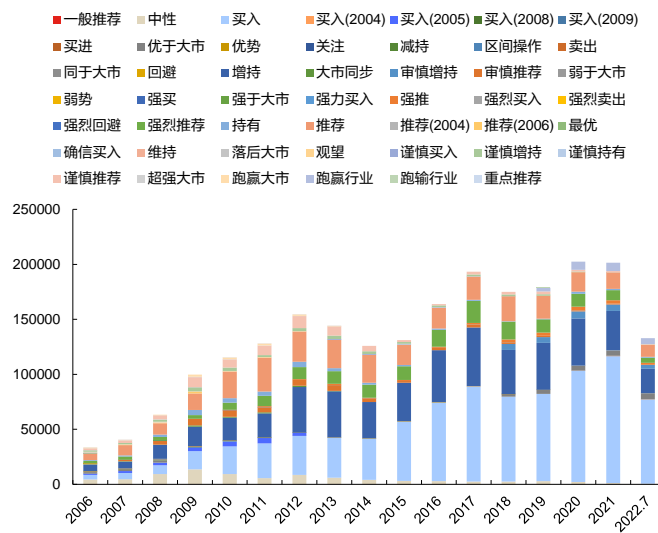
分析师报告中，盈利预测、评级、目标价是目前被数据商收录较为完整的三个结构化数据。盈利预测数据覆盖度最高，只有 0.1% 的研报既没有预测净利润，也没有预测 eps 数据。目标价数据覆盖度仅为 30% 左右，并且目标价的给出还需要分析师研判市场对该公司的合理估值倍数，难度较大。A 股评级差异性不大，多数报告出具的都是买入、增持、推荐、强烈推荐评级，这一维度的区分性较弱。

图 4：朝阳永续盈利预测、目标价数据覆盖度分年统计



数据来源：东方证券研究所 & 朝阳永续

图 5：朝阳永续评级分类分年统计



数据来源：东方证券研究所 & 朝阳永续

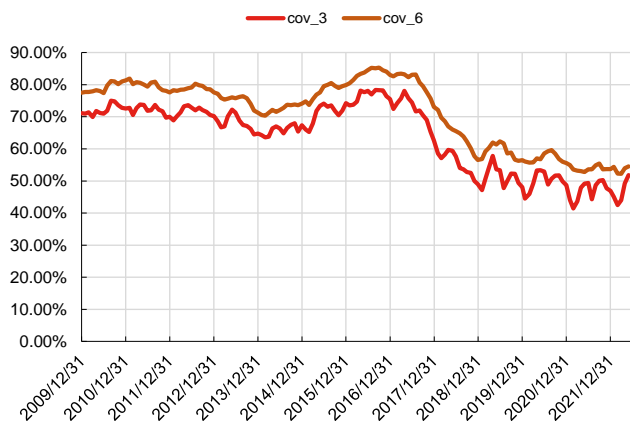
二、原始分析师覆盖度因子表现

常规的分析师覆盖度因子一般有两种计算方法：（1）使用过去一段时间分析师对标的公司出具的研报总数量；（2）使用过去一段时间针对标的公司出具过报告的机构数量。该因子反映了分析师群体对其时间精力的分配，基本面好、未来机会多、预期收益高的股票会有更多的分析师选择覆盖，因而分析师覆盖度因子可能包含不同于基本面和技术面的增量信息。

分析师覆盖情况与公司的基本面特征有关，有的行业更受分析师关注，市值大的公司对行业指数的影响更大，分析师也会倾向于对这些公司进行研究分析，因而后续我们均考察行业市值中性化处理后的因子的选股表现。中性化之前，因子需要取根号进行正态化处理，缺失值均用 0 填充。

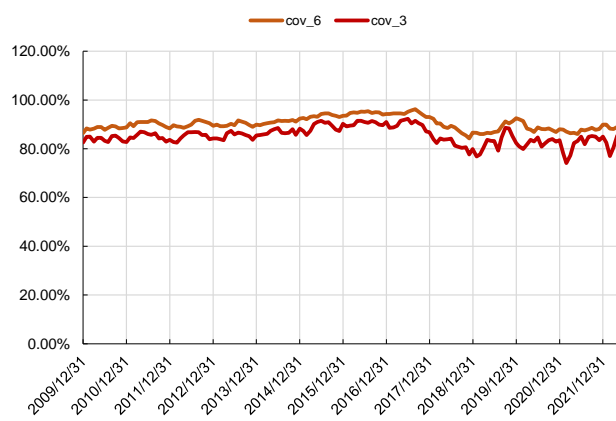
从因子覆盖度来看：中证全指内，2017 年-2018 年分析师覆盖度下滑明显，过去 6 个月的分析师覆盖度因子在中证全指中的覆盖度由 2017 年初的 83% 下降至 2018 年底的 57%，过去 3 个月的分析师覆盖度因子在中证全指中的覆盖度由 2017 年初的 75% 下降至 2018 年底的 50%。这主要是由于 2017-2018 年大小盘分化严重，分析师将更多的精力放在大盘蓝筹股上。2019 年开始分析师覆盖度情况趋于稳定。中证 800 内的分析师覆盖度始终较为稳定，基本都在 80% 左右。

图 6：分析师覆盖度因子在中证全指的覆盖度



数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

图 7：分析师覆盖度因子在中证 800 的覆盖度



数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

从各个样本空间的表现来看：考察报告数量和机构数量的因子效果差异不大，统一起见，后续均考察报告数量。3 个月和 6 个月回溯期下的因子表现差异也不大，考虑到因子覆盖度，后续均考察过去 6 个月。

在中证全指中，分析师覆盖度因子虽然 IC 均值可达 4.4%，多空组合年化收益最高近 18%，但稳定性较差，ICIR 1.6，多空组合夏普比 1.53，多空组合回撤较大，最大回撤均在 10% 以上。

在中证 800 股票池中，分析师覆盖度因子表现相对较差，IC 3.4%，ICIR 在 1.1，多空组合年化收益仅 10% 左右，最大回撤接近 20%。这可能与中证 800 中分析师覆盖率普遍较高，分析师覆盖度因子对股票的区分程度相对较弱有关。

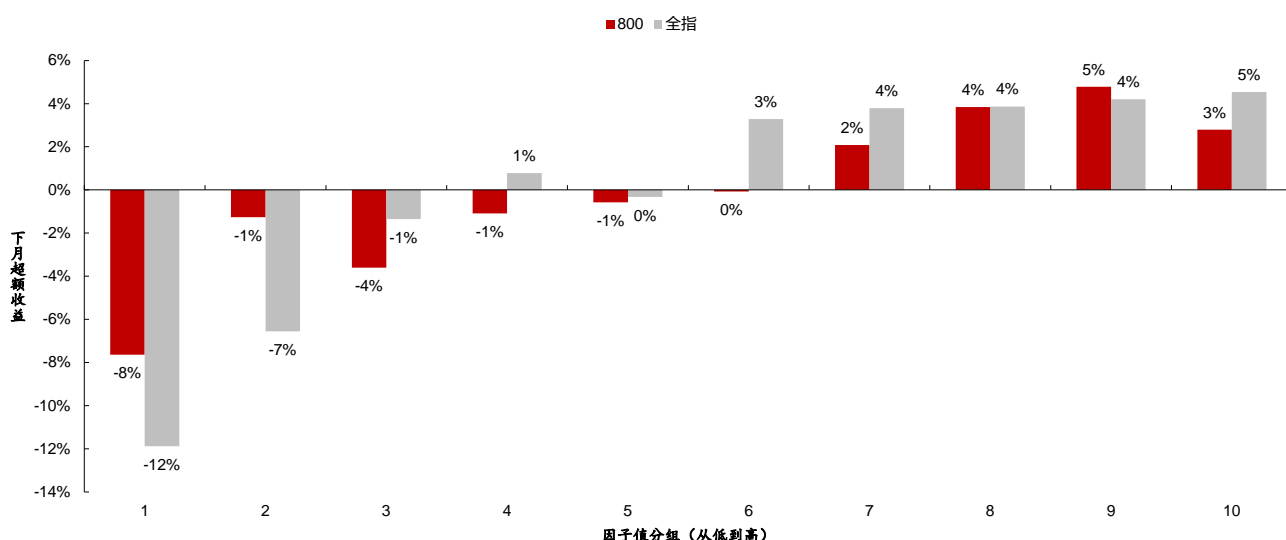
图 8：常规分析师覆盖因子表现（中证全指 & 中证 800）

回归法填充缺失值 行业市值中性化	中证全指				中证800			
	cov (过去6个月有覆盖 的机构数量, 取根号)	cov (过去6个月报告 数量, 取根号)	cov (过去3个月有覆盖 的机构数量, 取根号)	cov (过去3个月报告 数量, 取根号)	cov (过去6个月有覆盖 的机构数量, 取根号)	cov (过去6个月报告 数量, 取根号)	cov (过去3个月有覆盖 的机构数量, 取根号)	cov (过去3个月报告 数量, 取根号)
IC	3.93%	4.41%	4.21%	4.41%	3.29%	3.44%	3.46%	3.39%
IC_IR	1.45	1.63	1.61	1.69	1.08	1.11	1.15	1.12
tstat	5.16	5.77	5.72	5.99	3.83	3.92	4.07	3.98
long_short_r	1.41%	1.45%	1.54%	1.51%	0.93%	0.92%	0.89%	0.92%
long_short_win	70.20%	68.21%	69.54%	69.54%	56.95%	58.28%	59.60%	61.59%
long_short_sharp	1.60	1.53	1.81	1.67	0.97	0.97	1.02	1.03
long_short_drwindown	-11.24%	-15.90%	-10.95%	-12.64%	-24.77%	-18.76%	-18.84%	-22.55%
long_short_yearly	17.50%	17.86%	19.28%	18.71%	10.79%	10.65%	10.53%	10.87%
2010/12/31	24.23%	29.88%	28.79%	30.38%	26.70%	31.61%	24.82%	23.30%
2011/12/30	7.12%	8.43%	8.51%	7.75%	2.26%	-0.92%	1.33%	4.06%
2012/12/31	14.96%	14.80%	15.50%	14.07%	9.43%	6.42%	7.03%	6.43%
2013/12/31	15.06%	16.62%	15.32%	20.00%	2.92%	1.24%	0.56%	2.82%
2014/12/31	-8.33%	-14.06%	-6.38%	-9.66%	-20.97%	-14.75%	-13.20%	-15.29%
2015/12/31	46.58%	43.37%	45.33%	40.06%	26.51%	25.26%	17.98%	11.29%
2016/12/30	7.70%	10.14%	15.18%	12.55%	3.54%	6.37%	0.19%	8.14%
2017/12/29	28.08%	30.37%	30.02%	33.82%	33.90%	37.15%	32.48%	35.14%
2018/12/28	23.68%	23.13%	27.05%	25.56%	15.56%	6.37%	21.69%	16.81%
2019/12/31	29.92%	32.38%	32.12%	33.63%	30.07%	33.71%	29.53%	33.08%
2020/12/31	41.77%	44.11%	39.42%	39.94%	32.05%	23.71%	23.78%	18.72%
2021/12/31	8.41%	6.10%	6.27%	2.50%	-4.97%	-5.81%	-3.90%	-1.55%
2022/6/27	-3.38%	-1.78%	-0.30%	0.87%	-2.64%	1.33%	3.02%	5.74%

数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

从分组收益来看，分析师覆盖度因子空头端收益更高，多头端超额仅为空头端的一半。中证全指内因子单调性较好，但因子值最大的四组收益基本相当，多头端单调性欠缺。中证 800 内因子单调性较差，因子值最大的一组并不是收益最明显的一组，因子值最大一组的年化收益仅 2.8%，而因子值最小一组的年化收益近 8%。

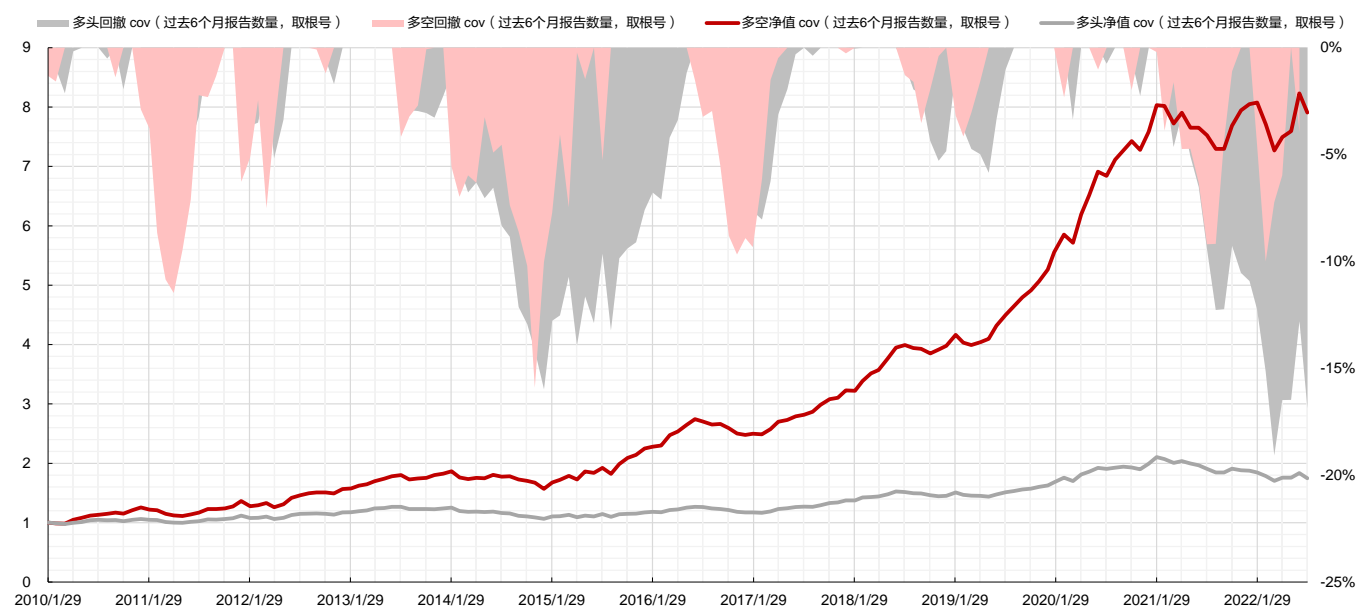
图 9：常规分析师覆盖因子分组表现（中证全指 & 中证 800，按因子值大小从低到高分 10 组）



数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

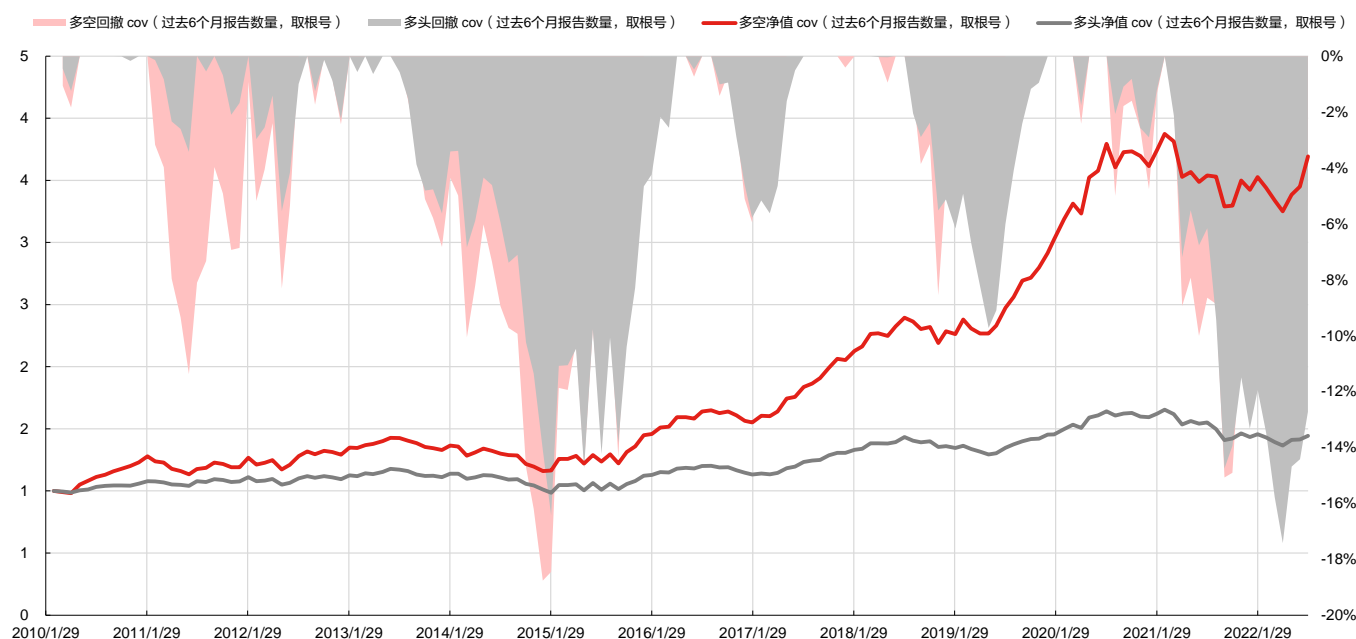
从历史净值表现来看，中证全指中 15 年之后因子表现显著提升，2020 年表现尤为突出，多空组合单年收益超 44%，多头组合单年收益超 22%。2021 年开始因子收益回撤较大，多空组合 2021 和 2022 年单年收益为 6%和-2%。多头端表现更差，最近两年均为负收益，2021 和 2022 年单年收益均在-6%左右。中证 800 成分内因子表现变化趋势相似，但因子表现波动更剧烈，回撤更大。

图 10：常规分析师覆盖因子多空净值及多头净值表现（中证全指）



数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

图 11：常规分析师覆盖因子多空净值及多头净值表现（中证 800 成分内）



数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

有关分析师的申明，见本报告最后部分。其他重要信息披露见分析师申明之后部分，或请与您的投资代表联系。并请阅读本证券研究报告最后一页的免责申明。

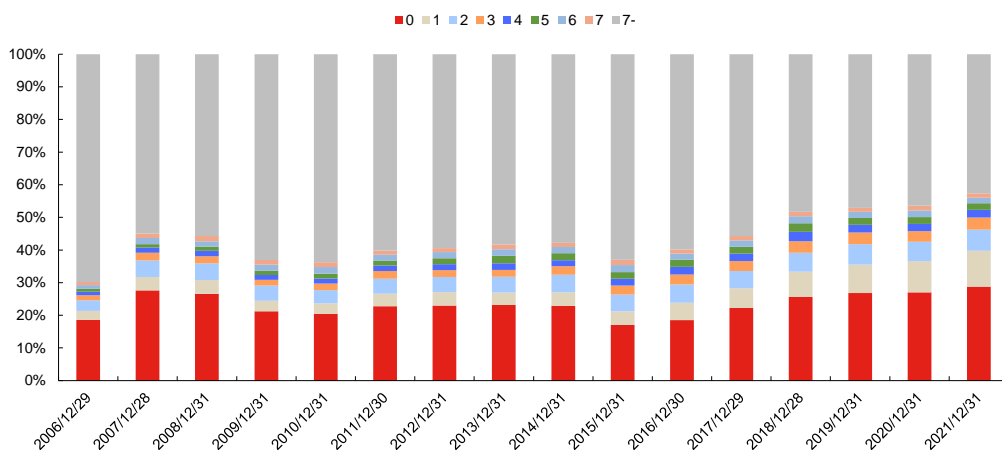
三、分析师覆盖度因子改进思路

本文我们从尝试从三个角度对分析师覆盖因子进行改进：

（1）公告后分析师覆盖度因子：上市公司发布的盈利数据是重要的基本面信息，公告前后的市场反应体现了投资者对这些信息的判断和预期差，分析师报告是市场反应的重要组成部分。多个股票的财报公告可能会在同一周甚至同一天发布，这时分析师需要决定优先对哪只股票撰写报告。公告后个股获得的分析师报告多，公告后首次覆盖的机构多，则说明公司此次公告业绩的关注度高，未来股票表现可能较好。

我们统计了每年财报公告（包括季报、快报、预告）后分析师撰写研报的滞后天数。可以看到，公告三天内的研报比例不断上升，滞后公告日 7 天以上的研报比例不断下降，说明分析师对公告数据的反应越来越及时。2021 年公告当天的研报比例接近 30%，滞后 3 天以内的研报比例达到 50%。滞后 7 天内的研报比例为 60%。

图 12：财报公告（包括季报、快报、预告）后分析师撰写研报的滞后天数占比分年统计



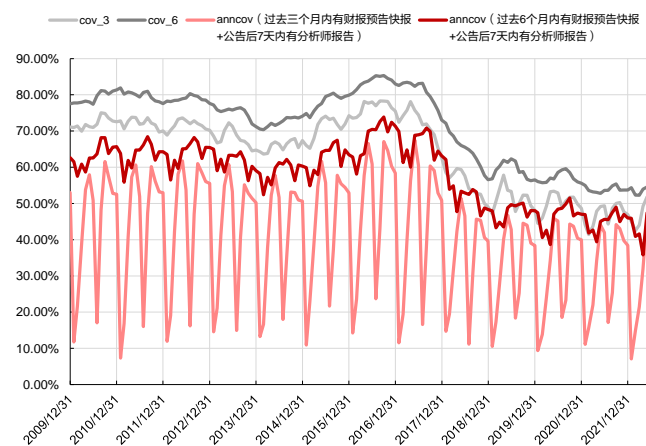
数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

公告后分析师覆盖度因子计算方法如下：考虑到数据覆盖度问题，我们认为公告后 7 天内的分析师报告都可以看作是分析师对此次公告信息的反映。**每月底回溯过去 6 个月，统计财报公告（包括季报、快报、预告）发布后 7 天内的研报总数量。**因子需要取根号进行正态化处理。若过去 6 个月内有公告，但没有分析师报告，因子值用 0 填充。若过去 6 个月内没有公告，因子值用行业市值回归的方法进行填充（将股票池分为数据存在缺失的股票池 A，和不存在数据缺失股票池 B。首先在类别 B 的样本股中，将待填充的因子对行业虚拟变量和市值进行回归，得到回归系数，随后在股票池 A 中，将回归系数与其已有因子值进行相乘，反向求得其预估因子值进行填充）。

可以看到，过去 6 个月内有公告且 7 天内有至少一篇分析师报告的股票，在中证全指中占比平均在 60%左右，在中证 800 成分内占比平均在 80%左右。过去 3 个月内有公告且 7 天内有至少一篇分析师报告的股票，在中证全指中占比平均在 40%左右，在中证 800 成分内占比平均在 60%

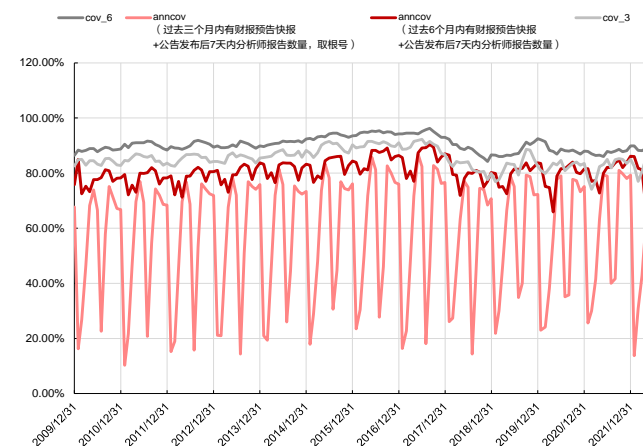
左右。由于公司公告主要集中在 3、4、8、10 月，如果只回溯三个月计算，那么 1-3 月，7-8 月公告信息较少，因子覆盖度仅在 20% 左右。

图 13：公告后分析师覆盖度因子在中证全指中的覆盖度



数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

图 14：公告后分析师覆盖度因子在中证 800 中的覆盖度

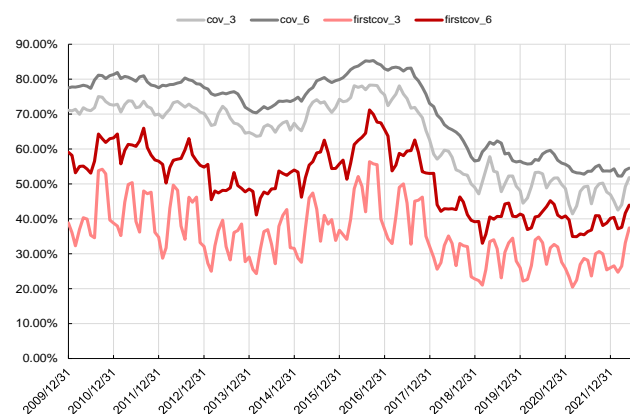


数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

（2）分析师首次覆盖度因子：分析师覆盖股票存在机会成本，分析师倾向于将时间和精力放在有发展潜力的公司上。一般而言，分析师在研报中首次覆盖、长期未关注后重新覆盖、首次给予评级，都可能说明该公司基本面出现好转迹象或分析师看好公司未来的发展前景。考虑到数据覆盖度问题，我们后续所指的分析师首次覆盖度均包括三部分含义：1.首次评级：该机构对该股票之前有个股报告，但 Go-Goal 评级为“无”；2.首次关注：该机构对该股票之前没有个股报告；3.首份报告：该机构对该股票近一年出具的第一篇个股报告。三部分样本占比基本均衡。分析师首次覆盖度因子计算方法如下：每月底回溯过去 6 个月，统计首次覆盖的机构数量。因子需要取根号进行正态化处理。缺失值用 0 填充。

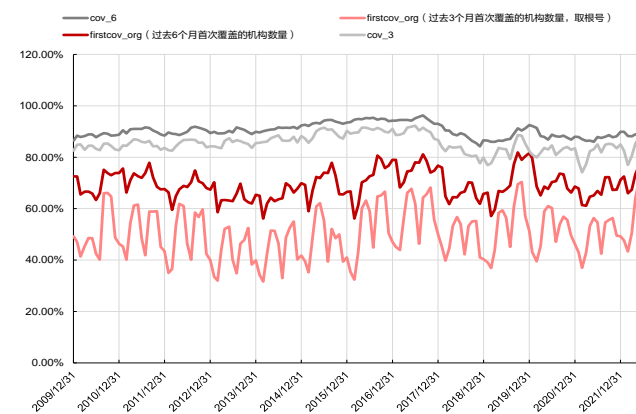
过去 6 个月内有机构首次覆盖的股票，在中证全指中占比平均在 50% 左右，在中证 800 成分内占比平均在 70% 左右。过去 3 个月内有机构首次覆盖的股票，在中证全指中占比平均在 35% 左右，在中证 800 成分内占比平均在 50% 左右。

图 15：分析师首次覆盖度因子在中证全指中的覆盖度



数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

图 16：分析师首次覆盖度因子在中证 800 中的覆盖度

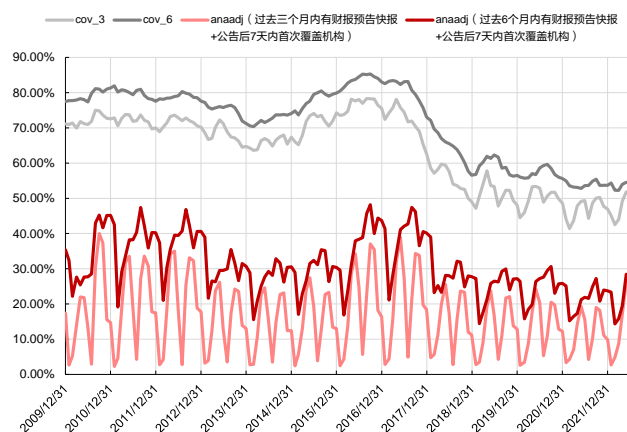


数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

有关分析师的申明，见本报告最后部分。其他重要信息披露见分析师申明之后部分，或请与您的投资代表联系。并请阅读本证券研究报告最后一页的免责申明。

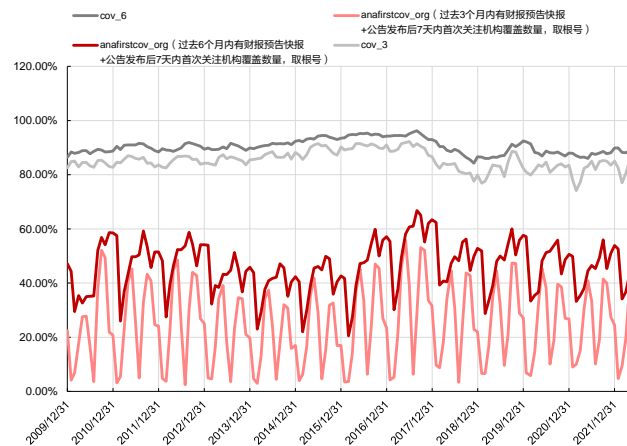
也可以计算公告后分析师首次覆盖度因子，即要求过去 6 个月内该公司有公告，进而计算 7 天内分析师首次覆盖度报告的数量。过去 6 个月内有公告，且公告后 7 天内有机构首次覆盖的股票，在中证全指中占比平均在 30%左右，在中证 800 成分内占比平均在 43%左右。过去 3 个月内有公告，且公告后 7 天内有机构首次覆盖的股票，在中证全指中占比平均在 16%左右，在中证 800 成分内占比平均在 25%左右。鉴于该因子覆盖度过低，不建议作为选股因子使用。

图 17：公告后分析师首次覆盖度因子在中证全指中的覆盖度



数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

图 18：公告后分析师首次覆盖度因子在中证 800 中的覆盖度



数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

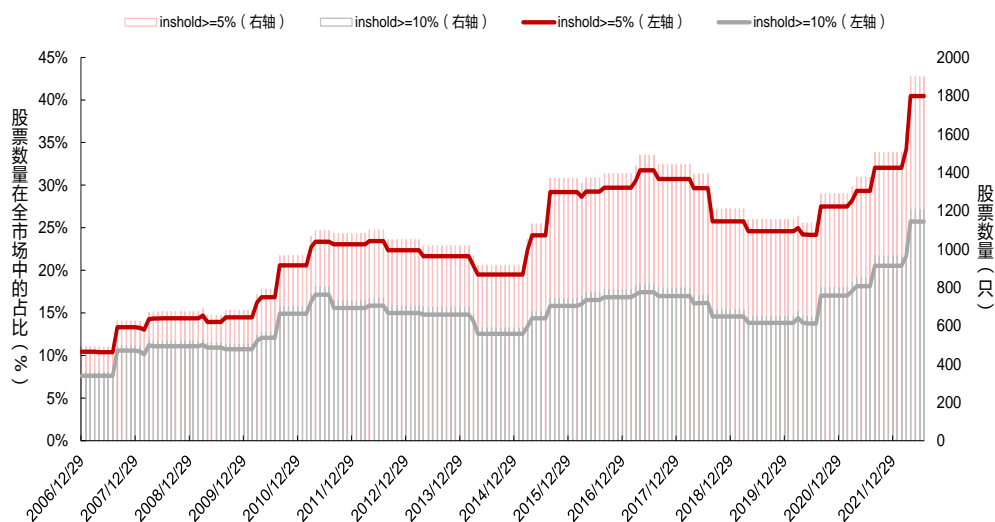
（3）不能被机构持仓占比解释的分析师覆盖度因子：一般来说，分析师对上市公司的跟踪程度与机构投资者的持股比例正相关。分析师会重点关注机构投资者重仓的股票，机构投资者也可能会根据分析师的建议进行投资。但也会存在例外的情况，有的股票分析师已经开始覆盖，但机构尚未重点关注，这种股票可能处于行情起步阶段，未来有可能有突出的表现。

我们尝试了两种因子构造方法：1、每月底，将常规的分析师覆盖度因子对最新机构持仓比例进行正交化。2、每月底，将常规的分析师覆盖度因子的排名分位数减去最新机构持仓比例的排名分位数。

我们基于半年报和年报的基金持股、券商的集合资管计划、前十大流通股中的保险、阳光私募、信托、社保和 QFII 持股、陆股通的持仓数据四个部分来测算每个股票的机构持仓占流通市值的比例。在统计的过程中没有考虑分类成一般法人和非金融公司持股的投资者的持股占比，以及前十大流通股的银行持股。对保险持股的数据进行了划分，去除了保险机构直接持股的部分，只保留保险机构产品的持股部分。

我们统计了 2007 -2022 年全市场股票中的机构持仓占比情况。可以看到机构持股占流通市值比大于 10%的股票数量从 2006 年底的 357 支（7.61%）增长到 2016 年底的 790 支（16.83%），但是从 2017 年以来，机构的抱团特征明显，高机构持股比的股票数量也逐年降低，至 2020 年中报降低为 645 支（13.74%）。2020 年下半年以来，随着 A 股机构化进程加速，流入 A 股的机构资金增多，高机构持股比的股票数量又开始迅速增加，到 2022 年中报达到 1207 只（25.71%）。

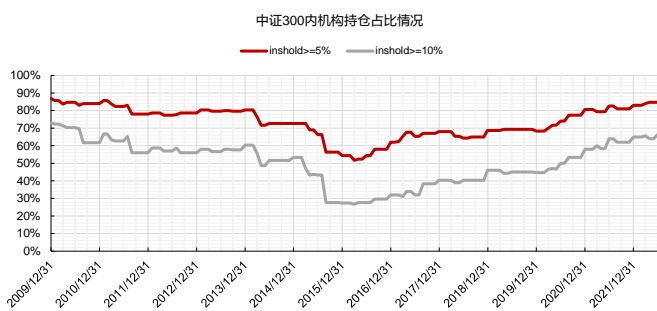
图 19：机构持仓占比情况分年统计（中证全指）



数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

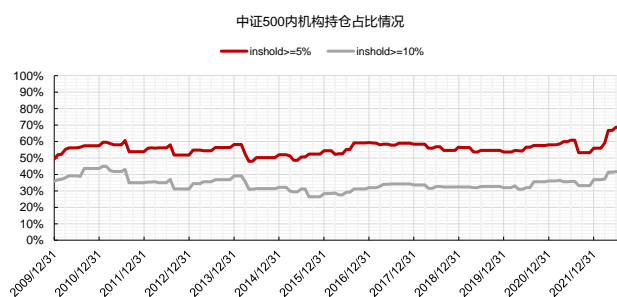
此外，我们统计了不同股票池中的机构持仓占比情况。可以看到在沪深 300 和创业板指中机构持仓占比最高，机构持仓比例超过 5% 的股票占到 70% 以上，机构持仓比例超过 10% 的股票占到 50% 以上。其次是中证 500 和中证 1000。

图 20：机构持仓占比情况分年统计（中证 300 内）



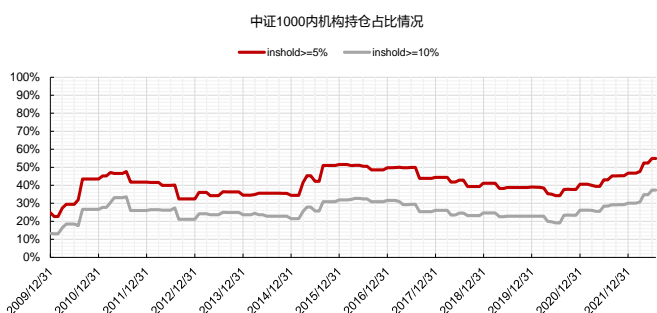
数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

图 21：机构持仓占比情况分年统计（中证 500 内）



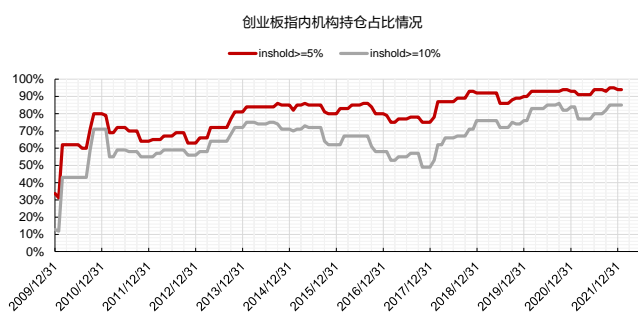
数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

图 22：机构持仓占比情况分年统计（中证 1000 内）



数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

图 23：机构持仓占比情况分年统计（创业板指内）



数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

四、公告后分析师覆盖度因子表现

(1) 年报、快报、预告数据的影响

加入业绩预告、快报后，anncov 因子表现进一步提升，并且因子效果都优于 cov 因子。

图 24：公告后分析师覆盖度因子表现（行业市值中性化，中证全指，过去 6 个月，不同信息源）

回归法填充缺失值 行业市值中性化	中证全指		
	cov (过去6个月报告数量, 取根号)	anncov (过去6个月内有财报 +公告发布后7天内报告数量, 取根号)	anncov (过去6个月内有财报预告快报 +公告发布后7天内报告数量, 取根号)
IC	4.41%	4.34%	4.56%
IC_IR	1.63	1.91	1.93
tstat	5.77	6.76	6.85
long_short_r	1.45%	1.41%	1.47%
long_short_win	68.21%	72.19%	70.86%
long_short_sharp	1.53	1.80	1.77
long_short_drwdown	-15.90%	-11.37%	-11.59%
long_short_yearly	17.86%	17.47%	18.23%
long_r	0.40%	0.41%	0.45%
long_win	56.29%	55.63%	54.30%
long_sharp	62.85%	69.85%	72.88%
long_drwdown	-19.07%	-19.38%	-20.16%
long_yearly	4.54%	4.58%	5.15%
short_r	-1.05%	-1.00%	-1.01%
short_win	22.52%	23.18%	23.18%
short_sharp	-239.21%	-253.45%	-254.38%
short_drwdown	-79.71%	-78.46%	-78.69%
short_yearly	-11.88%	-11.38%	-11.50%

数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

(2) 计算周期的选择

相同计算周期下，anncov 因子表现均优于 cov 因子，多空组合及多头组合年化收益均有所提升。计算周期为 3 个月的因子表现普遍好于 6 个月的因子，多空组合收益和稳定性均有提升，但考虑到数据覆盖度问题，如果采用过去三个月的计算周期，只利用因子多头端更为恰当。

图 25：公告后分析师覆盖度因子表现（行业市值中性化，中证全指，不同计算周期）

回归法填充缺失值 行业市值中性化	中证全指			
	cov (过去6个月报告数量, 取根号)	anncov (过去6个月内有财报预告快报 +公告发布后7天内报告数量, 取根号)	cov (过去3个月报告数量, 取根号)	anncov (过去3个月内有财报预告快报 +公告发布后7天内报告数量, 取根号)
IC	4.41%	4.56%	4.31%	4.18%
IC_IR	1.63	1.93	1.66	1.94
tstat	5.77	6.85	5.87	6.88
long_short_r	1.45%	1.47%	1.46%	1.49%
long_short_win	68.21%	70.86%	69.33%	76.82%
long_short_sharp	1.53	1.77	1.64	2.08
long_short_drwdown	-15.90%	-11.59%	-12.64%	-7.48%
long_short_yearly	17.86%	18.23%	18.13%	18.59%
long_r	0.40%	0.45%	0.43%	0.56%
long_win	56.29%	54.30%	57.33%	60.26%
long_sharp	62.85%	72.88%	67.61%	101.41%
long_drwdown	-19.07%	-20.16%	-20.11%	-12.81%
long_yearly	4.54%	5.15%	4.81%	6.56%
short_r	-1.05%	-1.01%	-1.04%	-0.92%
short_win	22.52%	23.18%	20.00%	21.85%
short_sharp	-239.21%	-254.38%	-247.98%	-240.20%
short_drwdown	-79.71%	-78.69%	-79.16%	-75.34%
short_yearly	-11.88%	-11.50%	-11.79%	-10.51%

数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

(3) 股票池的影响

两因子均是在小票中表现更好，在大票中 anncov 因子相对 cov 因子的优势更为明显。在创业板指和沪深 300 中 anncov 因子的效果最好，多空组合年化收益相比 cov 因子均能提升近 2%。在中证 500 中 anncov 因子的多空组合年化收益提升 1.2%。但在中证 1000 股票池中 anncov 因子表现略逊于 cov 因子。这可能是由于在大票中，常规分析师覆盖因子对股票的区分程度较弱。此外，在所有分组下 anncov 因子的多头组合的表现均优于 cov 因子。

图 26：公告后分析师覆盖度因子表现（行业市值中性化，不同宽基指数）

	中证全指		中证800		沪深300		中证500		创业板指		中证1000	
	anncov		anncov		anncov		anncov		anncov		anncov	
回归法填充缺失值	cov (过去6个月	(过去6个月内	cov (过去6个月	(过去6个月内	cov (过去6个月	(过去6个月内	cov (过去6个月	(过去6个月内	cov (过去6个月	(过去6个月内	cov (过去6个月	(过去6个月内
行业市值中性化	报告数量, 取根	财报预告快报	报告数量, 取根	财报预告快报	报告数量, 取根	财报预告快报	报告数量, 取根	财报预告快报	报告数量, 取根	财报预告快报	报告数量, 取根	财报预告快报
	号)	+公告发布后7天	号)	+公告发布后7天	号)	+公告发布后7天	号)	+公告发布后7天	号)	+公告发布后7天	号)	+公告发布后7天
	根号)	根号)	根号)	根号)	根号)	根号)	根号)	根号)	根号)	根号)	根号)	根号)
IC	4.41%	4.56%	3.44%	3.77%	3.28%	3.63%	3.86%	4.06%	5.63%	5.48%	5.12%	4.92%
IC_IR	1.63	1.93	1.11	1.32	0.95	1.15	1.33	1.48	1.57	1.49	1.71	1.87
tstat	5.77	6.85	3.92	4.69	3.36	4.08	4.72	5.26	5.44	5.15	6.08	6.62
long_short_r	1.45%	1.47%	0.92%	0.90%	0.79%	0.93%	0.75%	0.83%	1.62%	1.74%	1.77%	1.63%
long_short_win	68.21%	70.86%	58.28%	63.58%	59.60%	64.24%	64.24%	63.58%	59.72%	65.97%	72.19%	72.19%
long_short_sharp	1.53	1.77	0.97	1.01	0.88	1.10	0.93	1.11	0.97	1.01	1.67	1.74
long_short_drwindown	-15.90%	-11.59%	-18.76%	-20.70%	-25.27%	-22.70%	-23.72%	-17.89%	-26.36%	-33.80%	-15.95%	-16.60%
long_short_yearly	17.86%	18.23%	10.65%	10.44%	9.26%	11.07%	8.60%	9.84%	18.62%	20.43%	22.25%	20.45%
2010/12/31	29.88%	30.29%	31.61%	23.71%	3.06%	9.49%	27.35%	29.13%	4.68%	-3.77%	27.23%	23.55%
2011/12/30	8.43%	13.34%	-0.92%	6.20%	11.81%	16.53%	1.12%	1.35%	35.00%	26.89%	3.82%	8.09%
2012/12/31	14.80%	15.15%	6.42%	14.57%	3.15%	5.99%	8.95%	8.17%	40.77%	46.02%	17.61%	20.83%
2013/12/31	16.62%	17.53%	1.24%	-3.72%	-1.27%	-5.50%	0.46%	5.89%	-1.92%	-5.19%	18.54%	20.26%
2014/12/31	-14.06%	-6.42%	-14.75%	-14.46%	-18.44%	-16.13%	-18.48%	-14.77%	-5.82%	-11.39%	-2.37%	-5.08%
2015/12/31	43.37%	37.21%	25.26%	21.72%	18.73%	21.16%	14.37%	17.48%	22.15%	28.29%	46.51%	33.97%
2016/12/30	10.14%	16.81%	6.37%	10.39%	10.11%	13.04%	9.10%	16.81%	8.81%	23.47%	16.18%	17.12%
2017/12/29	30.37%	28.07%	37.15%	36.56%	28.65%	29.02%	28.79%	32.10%	29.60%	29.59%	34.28%	34.56%
2018/12/28	23.13%	20.45%	6.37%	5.67%	8.16%	9.89%	16.74%	16.03%	48.48%	57.69%	25.11%	25.63%
2019/12/31	32.38%	29.35%	33.71%	37.35%	36.23%	28.55%	19.92%	20.66%	31.01%	11.26%	37.77%	34.44%
2020/12/31	44.11%	40.45%	23.71%	21.40%	36.48%	42.77%	20.86%	17.37%	22.12%	42.92%	58.35%	51.01%
2021/12/31	6.10%	1.94%	-5.81%	-6.55%	-7.98%	-3.79%	-5.95%	-12.27%	-13.88%	-9.45%	13.18%	7.05%
2022/7/29	-1.78%	-1.04%	1.33%	-4.08%	2.12%	3.24%	-1.36%	-0.08%	23.41%	34.24%	1.04%	0.91%
long_r	0.40%	0.45%	0.27%	0.46%	0.30%	0.35%	0.34%	0.44%	0.62%	0.76%	0.59%	0.54%
long_win	56.29%	54.30%	56.95%	56.29%	60.26%	58.28%	58.28%	60.26%	56.94%	55.56%	57.62%	59.60%
long_sharp	62.85%	72.88%	42.85%	77.66%	54.28%	62.10%	70.48%	95.48%	59.93%	72.43%	87.70%	83.77%
long_drwindown	-19.07%	-20.16%	-17.42%	-14.21%	-17.98%	-19.16%	-14.29%	-16.28%	-20.74%	-27.29%	-11.64%	-13.66%
long_yearly	4.54%	5.15%	2.79%	5.21%	3.39%	3.80%	3.91%	5.10%	7.19%	9.00%	6.91%	6.39%
2010/12/31	7.30%	14.52%	10.66%	16.28%	-3.08%	4.51%	14.02%	20.32%	-5.36%	-8.69%	13.98%	12.16%
2011/12/30	5.67%	7.18%	3.15%	5.95%	8.60%	9.51%	0.92%	3.09%	21.66%	22.55%	-0.32%	0.14%
2012/12/31	4.76%	5.31%	1.25%	5.97%	2.92%	4.30%	1.88%	3.19%	21.87%	36.65%	5.52%	7.20%
2013/12/31	5.60%	7.12%	1.09%	-2.43%	0.49%	-4.27%	0.64%	4.23%	3.18%	1.03%	7.94%	11.83%
2014/12/31	-14.05%	-11.37%	-13.47%	-9.05%	-14.60%	-14.41%	-11.92%	-9.48%	-7.51%	-15.95%	-9.01%	-10.92%
2015/12/31	9.99%	4.02%	14.59%	20.36%	15.14%	12.65%	10.31%	10.31%	4.39%	4.39%	12.48%	6.06%
2016/12/30	0.09%	0.38%	0.35%	2.19%	0.23%	3.22%	3.07%	7.67%	3.36%	9.12%	3.72%	2.86%
2017/12/29	17.31%	17.66%	17.52%	19.42%	8.36%	11.66%	14.53%	16.26%	19.21%	17.44%	16.61%	15.08%
2018/12/28	5.64%	5.73%	1.12%	-1.05%	1.86%	-0.58%	7.14%	6.96%	10.94%	15.83%	5.53%	5.80%
2019/12/31	12.02%	12.97%	8.20%	12.17%	13.88%	11.94%	9.19%	9.86%	5.71%	-2.20%	12.04%	12.64%
2020/12/31	22.52%	24.83%	11.39%	14.24%	17.28%	17.54%	12.99%	11.49%	6.27%	19.64%	24.97%	24.56%
2021/12/31	-6.03%	-8.08%	-10.20%	-5.62%	-2.31%	-1.20%	-6.95%	-11.50%	-9.79%	-3.23%	0.89%	-0.16%
2022/7/29	-6.69%	-7.32%	-2.90%	-4.40%	-0.62%	-0.28%	-1.28%	-1.39%	12.69%	18.99%	-2.32%	-2.49%
short_r	-1.05%	-1.01%	-0.65%	-0.43%	-0.48%	-0.58%	-0.40%	-0.39%	-1.00%	-0.98%	-1.18%	-1.09%
short_win	22.52%	23.18%	38.41%	39.74%	36.42%	33.77%	36.42%	37.09%	36.11%	36.81%	19.87%	25.17%
short_sharp	-239.21%	-254.38%	-141.73%	-103.13%	-94.29%	-115.50%	-102.54%	-105.04%	-95.97%	-88.39%	-224.61%	-226.25%
short_drwindown	-79.71%	-78.69%	-63.86%	-50.30%	-55.21%	-61.59%	-47.15%	-47.02%	-78.11%	-79.18%	-83.58%	-81.08%
short_yearly	-11.88%	-11.50%	-7.63%	-5.19%	-5.92%	-7.04%	-4.72%	-4.68%	-11.58%	-11.64%	-13.33%	-12.28%
2010/12/31	-17.98%	-12.53%	-16.51%	-6.19%	-6.04%	-4.69%	-10.81%	-7.18%	-9.75%	-5.38%	-11.17%	-9.76%
2011/12/30	-3.12%	-5.80%	3.54%	-0.64%	-3.32%	-6.57%	-0.61%	1.43%	-10.77%	-4.61%	-4.72%	-7.88%
2012/12/31	-9.50%	-9.14%	-5.36%	-7.73%	-0.63%	-1.94%	-7.00%	-4.98%	-14.64%	-7.41%	-11.02%	-11.87%
2013/12/31	-9.71%	-9.10%	-0.18%	1.19%	1.55%	1.17%	-0.03%	-1.84%	2.59%	3.06%	-9.70%	-7.33%
2014/12/31	-0.44%	-5.49%	1.21%	5.99%	4.25%	1.74%	7.76%	5.97%	-2.04%	-6.17%	-7.14%	-6.36%
2015/12/31	-24.63%	-25.32%	-9.10%	-1.67%	-3.59%	-7.26%	-4.21%	-6.92%	-16.82%	-20.76%	-25.17%	-21.97%
2016/12/30	-9.71%	-14.53%	-5.92%	-7.90%	-9.42%	-9.18%	-5.81%	-8.10%	-5.89%	-13.03%	-11.48%	-12.62%
2017/12/29	-10.32%	-8.39%	-14.85%	-12.98%	-16.37%	-13.95%	-11.41%	-12.36%	-9.22%	-10.86%	-13.62%	-15.04%
2018/12/28	-14.65%	-12.48%	-5.43%	-6.68%	-6.14%	-10.01%	-8.47%	-8.08%	-27.68%	-29.28%	-16.11%	-16.34%
2019/12/31	-15.89%	-13.15%	-18.86%	-18.99%	-17.29%	-13.76%	-9.49%	-9.42%	-20.68%	-14.11%	-19.29%	-16.73%
2020/12/31	-15.61%	-11.58%	-10.92%	-6.72%	-14.96%	-18.57%	-7.05%	-5.45%	-16.88%	-20.79%	-21.95%	-18.23%
2021/12/31	-11.75%	-10.09%	-5.19%	0.44%	5.34%	2.10%	-1.40%	0.62%	1.03%	3.56%	-11.72%	-7.76%
2022/7/29	-5.41%	-6.60%	-4.64%	-0.88%	-3.27%	-3.94%	-0.18%	-1.45%	-9.20%	-12.33%	-3.78%	-3.95%

数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

两因子均在高机构持仓占比的股票池中表现较差，在高持仓分组中 anncov 因子的优势更明显。在第五组中 anncov 因子的多空组合年化收益相比 cov 因子提高 5%，最大回撤也有所降低。在低机构持仓占比分组中 anncov 虽然多空组合收益略低，但组合夏普比更高，稳定性更好，回撤减半。此外，在所有分组下 anncov 因子的多头组合表现均优于 cov 因子。

图 27：公告后分析师覆盖度因子表现（行业市值中性化，中证全指内不同机构持仓分组）

	0 (中证全指)		1 (低机构持仓占比)		2		3		4		5 (高机构持仓占比)	
回归法填充缺失值 行业市值中性化	cov (过去6个月 月报告数量, 取 报号)	anncov (过去6个月内 有财报预告快报 +公告发布后7 天内报告数量, 取报号)	cov (过去6个月 月报告数量, 取 报号)	anncov (过去6个月内 有财报预告快报 +公告发布后7 天内报告数量, 取报号)	cov (过去6个月 月报告数量, 取 报号)	anncov (过去6个月内 有财报预告快报 +公告发布后7 天内报告数量, 取报号)	cov (过去6个月 月报告数量, 取 报号)	anncov (过去6个月内 有财报预告快报 +公告发布后7 天内报告数量, 取报号)	cov (过去6个月 月报告数量, 取 报号)	anncov (过去6个月内 有财报预告快报 +公告发布后7 天内报告数量, 取报号)	cov (过去6个月 月报告数量, 取 报号)	anncov (过去6个月内 有财报预告快报 +公告发布后7 天内报告数量, 取报号)
IC	4.41%	4.56%	4.74%	5.29%	3.66%	4.09%	3.39%	3.42%	3.24%	3.66%	3.06%	3.30%
IC_IR	1.63	1.93	1.93	2.69	1.64	2.13	1.43	1.59	1.32	1.65	1.19	1.39
tstat	5.77	6.85	6.86	9.54	5.83	7.56	5.08	5.63	4.69	5.84	4.23	4.91
long_short_r	1.45%	1.47%	1.59%	1.32%	1.40%	1.38%	1.57%	1.37%	1.35%	1.28%	0.80%	1.16%
long_short_win	68.21%	70.86%	70.20%	66.23%	66.23%	68.87%	69.54%	66.89%	62.91%	67.55%	58.94%	68.21%
long_short_sharp	1.53	1.77	1.59	1.56	1.51	1.58	1.74	1.62	1.44	1.42	0.75	1.25
long_short_drwdown	-15.90%	-11.59%	-12.63%	-6.81%	-10.83%	-7.91%	-9.91%	-12.62%	-14.72%	-14.58%	-27.26%	-25.27%
long_short_yearly	17.86%	18.23%	19.85%	16.55%	17.01%	17.05%	19.67%	16.78%	17.18%	16.18%	9.35%	14.12%
2010/12/31	29.88%	30.29%	18.30%	4.92%	8.77%	5.33%	29.75%	28.14%	-0.07%	5.75%	1.60%	12.13%
2011/12/30	8.43%	13.34%	11.96%	8.56%	4.54%	3.90%	14.52%	2.51%	14.30%	14.34%	0.84%	12.89%
2012/12/31	14.80%	15.15%	15.92%	19.28%	12.29%	10.15%	2.51%	10.30%	5.27%	4.49%	11.41%	25.96%
2013/12/31	16.62%	17.53%	26.90%	26.48%	27.64%	17.25%	31.66%	31.32%	12.26%	9.37%	11.76%	12.25%
2014/12/31	-14.06%	-6.42%	1.88%	-1.31%	-3.26%	9.22%	-4.52%	-5.77%	-7.22%	-6.27%	-18.34%	-18.18%
2015/12/31	43.37%	37.21%	42.05%	41.40%	52.65%	73.06%	42.52%	26.79%	40.07%	32.51%	15.46%	12.26%
2016/12/30	10.14%	16.81%	20.94%	17.92%	14.18%	9.14%	3.54%	13.84%	13.18%	13.51%	8.40%	24.78%
2017/12/29	30.37%	28.07%	21.79%	15.32%	18.66%	16.31%	29.71%	33.92%	29.62%	29.18%	20.46%	30.14%
2018/12/28	23.13%	20.45%	14.07%	14.81%	24.26%	16.12%	24.62%	20.98%	37.14%	32.05%	33.65%	25.31%
2019/12/31	32.38%	29.35%	19.33%	17.93%	21.61%	15.75%	28.25%	23.93%	39.26%	35.40%	32.72%	23.66%
2020/12/31	44.11%	40.45%	38.53%	28.95%	27.02%	25.11%	44.93%	26.74%	48.09%	57.77%	22.53%	23.93%
2021/12/31	6.10%	1.94%	21.79%	7.49%	22.43%	23.48%	10.35%	4.36%	5.77%	0.95%	-12.61%	-0.12%
2022/7/29	-1.78%	-1.04%	3.63%	10.38%	-1.11%	5.88%	4.88%	6.25%	-8.32%	-10.91%	1.01%	3.78%
long_r	0.40%	0.45%	0.40%	0.35%	0.41%	0.42%	0.59%	0.63%	0.46%	0.56%	0.15%	0.33%
long_win	56.29%	54.30%	59.60%	62.25%	56.95%	60.93%	62.91%	67.55%	58.94%	56.95%	55.63%	58.28%
long_sharp	62.85%	72.88%	55.64%	55.44%	66.52%	71.51%	96.88%	108.96%	71.61%	94.00%	28.07%	62.16%
long_drwdown	-19.07%	-20.16%	-14.68%	-18.18%	-11.87%	-9.73%	-9.63%	-12.09%	-17.45%	-16.60%	-18.20%	-16.03%
long_yearly	4.54%	5.15%	4.36%	3.96%	4.52%	4.92%	6.98%	7.22%	5.46%	6.77%	1.72%	3.71%
2010/12/31	7.30%	14.52%	5.94%	2.11%	7.82%	3.48%	11.91%	25.30%	-1.13%	4.65%	-0.14%	5.47%
2011/12/30	5.67%	7.18%	3.70%	0.03%	-4.29%	-4.59%	5.16%	1.86%	7.03%	10.72%	0.66%	3.74%
2012/12/31	4.76%	5.31%	5.47%	10.34%	4.32%	1.91%	-4.14%	-1.25%	-0.46%	1.69%	5.32%	13.01%
2013/12/31	5.60%	7.12%	18.57%	20.35%	11.62%	10.12%	12.28%	11.92%	6.68%	5.15%	4.37%	2.42%
2014/12/31	-14.05%	-11.37%	-10.69%	-11.22%	-8.30%	-0.60%	-5.58%	-4.41%	-13.43%	-4.25%	-9.10%	-8.84%
2015/12/31	9.99%	4.02%	0.60%	-2.55%	9.65%	20.83%	10.72%	-1.95%	14.48%	7.46%	0.79%	-3.80%
2016/12/30	0.09%	0.38%	5.89%	5.24%	-2.39%	-7.06%	-1.88%	2.93%	4.66%	1.86%	4.00%	8.95%
2017/12/29	17.31%	17.66%	12.01%	13.08%	15.04%	11.11%	15.40%	17.99%	17.40%	21.07%	6.05%	11.43%
2018/12/28	5.64%	5.73%	3.85%	7.00%	8.81%	7.44%	9.16%	8.94%	12.60%	7.73%	5.89%	4.76%
2019/12/31	12.02%	12.97%	3.69%	4.49%	11.26%	4.70%	12.95%	11.61%	13.35%	12.33%	7.34%	6.99%
2020/12/31	22.52%	24.83%	13.05%	7.22%	14.13%	15.75%	25.20%	20.12%	25.26%	33.80%	2.81%	8.39%
2021/12/31	-6.03%	-8.08%	2.28%	-2.70%	2.52%	5.62%	5.05%	7.74%	-1.16%	2.71%	-6.12%	-4.37%
2022/7/29	-6.69%	-7.32%	-4.52%	0.78%	-7.25%	-2.97%	-3.33%	-1.46%	-10.69%	-14.46%	-0.16%	1.74%
short_r	-1.05%	-1.01%	-1.19%	-0.96%	-1.00%	-0.96%	-0.98%	-0.74%	-0.89%	-0.73%	-0.65%	-0.84%
short_win	22.52%	23.18%	23.84%	31.79%	27.81%	31.79%	27.15%	35.10%	32.45%	34.44%	38.41%	32.45%
short_sharp	-239.21%	-254.38%	-212.20%	-175.42%	-175.86%	-164.79%	-200.80%	-134.32%	-174.55%	-131.24%	-95.28%	-138.68%
short_drwdown	-79.71%	-78.69%	-84.42%	-78.01%	-78.96%	-78.05%	-77.67%	-69.80%	-75.60%	-69.29%	-67.92%	-73.62%
short_yearly	-11.88%	-11.50%	-13.60%	-11.31%	-11.31%	-10.97%	-11.20%	-8.74%	-10.58%	-8.71%	-7.90%	-9.84%
2010/12/31	-17.98%	-12.53%	-11.47%	-2.97%	-1.60%	-2.05%	-14.14%	-2.68%	-1.41%	-1.47%	-2.32%	-6.12%
2011/12/30	-3.12%	-5.80%	-8.08%	-8.25%	-8.78%	-8.40%	-8.70%	-1.14%	-6.76%	-3.69%	-0.80%	-8.61%
2012/12/31	-9.50%	-9.14%	-9.84%	-8.20%	-7.57%	-7.83%	-7.21%	-11.18%	-6.03%	-3.18%	-6.09%	-10.91%
2013/12/31	-9.71%	-9.10%	-7.28%	-5.85%	-12.97%	-6.19%	-15.45%	-15.34%	-5.17%	-4.07%	-7.20%	-9.27%
2014/12/31	-0.44%	-5.49%	-12.64%	-10.38%	-5.90%	-9.48%	-1.21%	1.11%	-7.11%	1.66%	9.73%	9.94%
2015/12/31	-24.63%	-25.32%	-31.15%	-32.17%	-29.80%	-32.56%	-23.87%	-23.47%	-19.14%	-20.36%	-15.17%	-15.85%
2016/12/30	-9.71%	-14.53%	-12.77%	-11.12%	-14.97%	-15.13%	-5.69%	-10.03%	-8.73%	-10.82%	-4.37%	-13.63%
2017/12/29	-10.32%	-8.39%	-8.52%	-2.28%	-3.35%	-4.71%	-11.47%	-12.52%	-9.77%	-6.54%	-12.56%	-15.10%
2018/12/28	-14.65%	-12.48%	-9.23%	-7.14%	-12.78%	-7.68%	-12.83%	-10.18%	-18.56%	-18.89%	-21.60%	-16.94%
2019/12/31	-15.89%	-13.15%	-13.55%	-11.82%	-9.01%	-10.00%	-12.64%	-10.49%	-19.34%	-17.66%	-20.16%	-14.16%
2020/12/31	-15.61%	-11.58%	-19.05%	-17.46%	-11.19%	-8.72%	-14.41%	-5.86%	-16.07%	-16.14%	-16.99%	-13.30%
2021/12/31	-11.75%	-10.09%	-16.29%	-9.68%	-17.07%	-15.00%	-4.96%	2.35%	-7.23%	1.21%	6.60%	-4.73%
2022/7/29	-5.41%	-6.60%	-8.11%	-8.88%	-6.40%	-8.58%	-8.01%	-7.43%	-2.86%	-4.41%	-1.76%	-2.13%

数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

在下图所列出的热门行业中，anncov 因子的表现都优于 cov 因子。在食品饮料行业中优势尤为突出，多空组合年化收益提升 9%，多头组合年化收益提升 5%。在电力设备、国防军工行业中，多空组合年化收益可提升 2.4%。在医药生物、周期行业中，多空组合年化收益可提升 1.2%。

图 28：公告后分析师覆盖度因子表现（行业市值中性化，中证全指内不同行业）

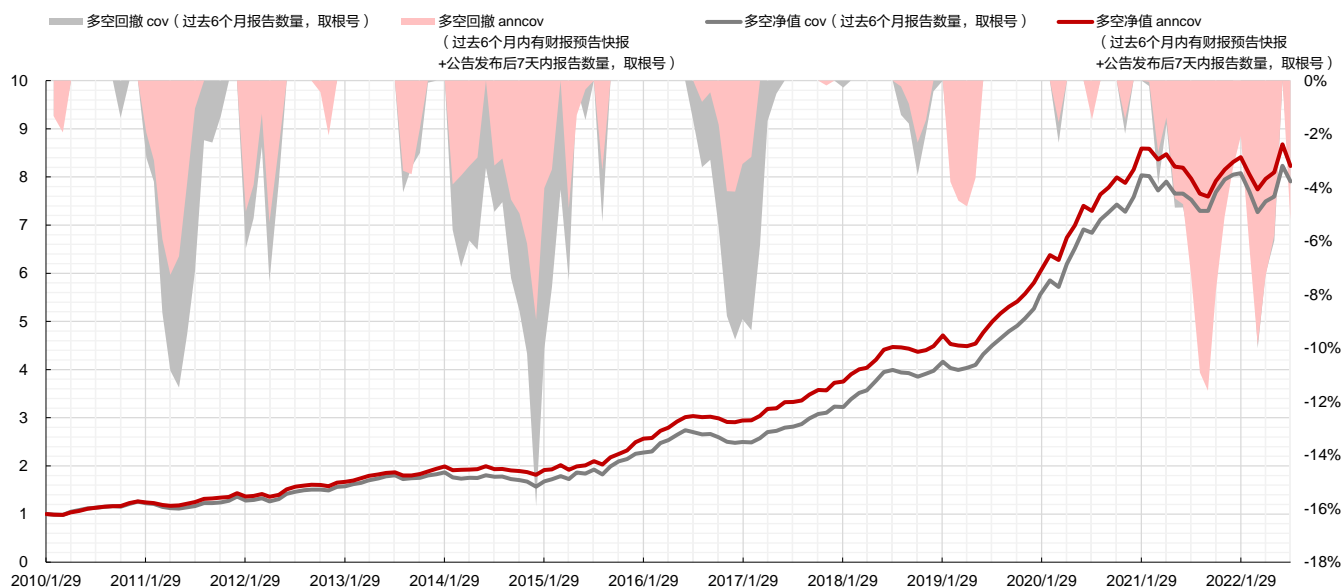
中证全指 回归法填充缺失值 行业市值中性化	食品饮料		电力设备		国防军工		医药生物		家用电器		TMT 电子, 计算机, 通信, 传媒		周期 公用事业, 有色金属, 钢铁, 房地产, 基础化工, 石油石化, 煤炭	
	anncov		anncov		anncov		anncov		anncov		anncov		anncov	
	cov (过去6个月报告数量, 取根号)	(过去6个月内 有财报预告快报 +公告发布后7 天内报告数量, 取根号)	cov (过去6个月报告数量, 取根号)	(过去6个月内 有财报预告快报 +公告发布后7 天内报告数量, 取根号)	cov (过去6个月报告数量, 取根号)	(过去6个月内 有财报预告快报 +公告发布后7 天内报告数量, 取根号)	cov (过去6个月报告数量, 取根号)	(过去6个月内 有财报预告快报 +公告发布后7 天内报告数量, 取根号)	cov (过去6个月报告数量, 取根号)	(过去6个月内 有财报预告快报 +公告发布后7 天内报告数量, 取根号)	cov (过去6个月报告数量, 取根号)	(过去6个月内 有财报预告快报 +公告发布后7 天内报告数量, 取根号)	cov (过去6个月报告数量, 取根号)	(过去6个月内 有财报预告快报 +公告发布后7 天内报告数量, 取根号)
IC	4.76%	4.80%	5.58%	5.48%	4.96%	4.94%	5.59%	4.94%	1.95%	2.92%	5.04%	4.89%	4.14%	4.04%
IC_IR	0.82	0.88	1.26	1.28	0.83	0.87	1.24	1.37	0.37	0.54	1.31	1.45	1.75	1.90
tstat	2.91	3.12	4.47	4.54	2.95	3.08	4.39	4.88	1.31	1.93	4.64	5.15	6.21	6.76
long_short_r	0.91%	1.49%	1.55%	1.68%	1.01%	1.16%	1.33%	1.41%	0.68%	0.69%	1.56%	1.40%	1.12%	1.21%
long_short_win	58.94%	65.56%	57.62%	61.59%	57.62%	56.29%	60.26%	61.59%	58.94%	58.28%	64.24%	66.89%	68.21%	72.85%
long_short_sharp	0.53	0.97	1.08	1.29	0.58	0.71	1.10	1.23	0.41	0.42	1.41	1.48	1.62	1.86
long_short_drwindown	-45.27%	-22.97%	-28.41%	-15.41%	-39.57%	-26.49%	-20.20%	-18.40%	-37.58%	-39.83%	-14.99%	-9.80%	-10.54%	-10.01%
long_short_yearly	8.94%	17.31%	17.45%	19.87%	9.81%	12.21%	15.30%	16.50%	6.68%	6.69%	18.87%	17.09%	13.92%	15.15%
2010/12/31	23.84%	23.16%	29.31%	28.42%	29.52%	35.65%	27.74%	26.34%	13.08%	40.79%	32.83%	22.31%	5.20%	7.56%
2011/12/30	-2.97%	13.10%	-11.68%	-4.67%	2.37%	-5.44%	21.65%	18.78%	-19.41%	-11.93%	3.44%	5.69%	-1.09%	4.05%
2012/12/31	6.16%	21.69%	20.55%	11.75%	19.69%	17.17%	15.58%	33.62%	9.06%	7.55%	11.31%	11.16%	20.87%	18.06%
2013/12/31	29.01%	31.59%	24.19%	26.99%	9.72%	27.15%	31.54%	34.91%	3.83%	14.34%	34.56%	23.96%	13.62%	11.68%
2014/12/31	-22.52%	-15.26%	-6.33%	3.15%	-29.36%	-10.52%	-1.89%	-0.43%	-7.83%	-11.12%	0.98%	6.07%	2.70%	6.11%
2015/12/31	8.51%	4.25%	3.23%	5.46%	64.88%	32.72%	20.48%	21.81%	30.88%	-14.87%	53.23%	43.21%	20.25%	27.34%
2016/12/30	15.54%	20.34%	-0.14%	10.77%	3.83%	4.56%	-5.58%	1.13%	20.11%	27.01%	7.74%	7.73%	10.99%	18.94%
2017/12/29	46.73%	45.95%	27.86%	26.12%	-1.32%	-6.31%	12.89%	15.89%	44.98%	49.13%	23.64%	15.99%	30.57%	26.97%
2018/12/28	34.58%	44.95%	10.60%	5.19%	6.01%	9.62%	27.66%	24.89%	33.01%	38.51%	27.32%	23.47%	16.94%	20.56%
2019/12/31	17.41%	24.46%	43.55%	45.54%	-8.90%	9.21%	34.86%	26.68%	9.56%	5.14%	23.13%	17.39%	23.27%	18.05%
2020/12/31	-2.53%	10.28%	87.06%	94.36%	26.36%	12.07%	33.64%	29.16%	4.81%	8.38%	34.72%	38.42%	28.38%	28.69%
2021/12/31	-4.88%	19.81%	26.86%	32.71%	36.98%	45.19%	2.42%	3.31%	-24.24%	-26.70%	7.54%	8.55%	6.15%	-0.25%
2022/7/29	-11.82%	-7.70%	7.36%	2.59%	0.13%	3.94%	-7.71%	-8.60%	-13.22%	-13.09%	-3.76%	2.14%	3.06%	7.02%
long_r	0.38%	0.73%	0.86%	0.71%	0.31%	0.56%	0.64%	0.59%	0.39%	0.36%	0.59%	0.47%	0.34%	0.39%
long_win	56.29%	60.93%	56.29%	51.66%	50.99%	50.33%	58.28%	58.94%	58.28%	57.62%	59.60%	56.29%	56.95%	61.59%
long_sharp	37.53%	75.04%	89.74%	80.37%	30.64%	55.11%	87.52%	79.94%	34.90%	32.23%	86.64%	74.81%	68.28%	85.89%
long_drwindown	-32.17%	-19.61%	-16.53%	-18.48%	-30.60%	-28.53%	-15.26%	-18.70%	-39.00%	-43.28%	-13.47%	-12.02%	-11.65%	-8.94%
long_yearly	3.76%	8.48%	9.62%	7.92%	2.88%	6.03%	7.21%	6.68%	3.86%	3.44%	6.70%	5.33%	3.91%	4.58%
2010/12/31	8.85%	16.74%	26.54%	9.93%	16.26%	28.82%	11.59%	5.46%	17.31%	37.25%	14.15%	8.28%	0.28%	3.77%
2011/12/30	4.49%	3.13%	-3.06%	-4.62%	2.78%	5.71%	13.09%	7.88%	-4.69%	4.61%	1.62%	2.69%	-1.68%	-1.26%
2012/12/31	3.48%	10.24%	11.89%	5.48%	8.59%	10.09%	6.17%	10.90%	6.79%	3.80%	6.47%	6.41%	5.97%	5.68%
2013/12/31	14.45%	13.46%	9.32%	12.87%	-4.00%	23.72%	11.90%	12.85%	9.07%	8.58%	18.76%	10.48%	-0.49%	0.63%
2014/12/31	-17.80%	-9.97%	-0.85%	-7.07%	-21.61%	-24.06%	-1.88%	-2.13%	-9.95%	-14.62%	-6.99%	-6.85%	-4.56%	-2.73%
2015/12/31	-4.39%	-6.12%	-3.52%	-4.23%	20.95%	11.25%	12.29%	14.55%	6.21%	-6.67%	16.74%	16.56%	2.56%	3.93%
2016/12/30	0.20%	-1.26%	-5.92%	-1.08%	-3.13%	1.08%	-0.44%	-0.74%	18.76%	12.44%	3.86%	2.50%	1.14%	2.69%
2017/12/29	25.42%	21.02%	20.41%	18.75%	1.81%	-3.72%	6.84%	8.30%	36.13%	37.53%	10.25%	5.33%	15.32%	15.26%
2018/12/28	20.97%	29.56%	-2.97%	-7.08%	5.10%	5.89%	12.64%	10.35%	5.26%	10.30%	8.03%	8.28%	6.61%	7.55%
2019/12/31	5.79%	18.49%	21.06%	26.33%	-6.82%	2.72%	16.66%	14.02%	13.65%	13.08%	9.03%	6.95%	10.98%	9.08%
2020/12/31	15.79%	21.96%	46.70%	51.99%	5.45%	2.16%	18.32%	20.81%	3.65%	2.70%	14.53%	18.15%	12.80%	12.41%
2021/12/31	-11.29%	4.28%	13.52%	15.50%	20.25%	24.54%	-4.19%	-6.95%	-20.99%	-26.28%	2.18%	-0.35%	4.28%	0.92%
2022/7/29	-7.84%	-7.07%	6.01%	1.27%	0.82%	1.16%	-4.04%	-4.73%	-18.42%	-18.19%	-7.61%	-5.74%	-1.32%	1.40%
short_r	-0.53%	-0.76%	-0.69%	-0.97%	-0.70%	-0.60%	-0.69%	-0.82%	-0.29%	-0.33%	-0.97%	-0.92%	-0.78%	-0.82%
short_win	43.05%	36.42%	43.05%	39.07%	41.06%	39.74%	39.07%	35.76%	46.36%	41.06%	32.45%	26.49%	21.19%	18.54%
short_sharp	-53.15%	-86.76%	-91.72%	-132.68%	-64.31%	-62.47%	-114.52%	-147.41%	-31.76%	-34.45%	-175.01%	-192.65%	-259.95%	-253.95%
short_drwindown	-67.43%	-71.07%	-69.42%	-77.69%	-69.99%	-66.85%	-65.93%	-71.45%	-55.06%	-51.11%	-77.47%	-75.69%	-70.00%	-71.63%
short_yearly	-6.75%	-9.04%	-7.82%	-11.02%	-8.43%	-7.28%	-7.93%	-9.21%	-4.25%	-4.75%	-11.06%	-10.63%	-9.09%	-9.49%
2010/12/31	-14.87%	-7.57%	-5.08%	-16.82%	-12.24%	-8.61%	-13.88%	-17.79%	2.26%	-4.14%	-14.67%	-11.86%	-4.73%	-3.68%
2011/12/30	1.58%	-10.83%	8.78%	-0.65%	-1.32%	10.09%	-7.88%	-9.85%	14.50%	14.69%	-2.71%	-3.29%	-0.86%	-5.24%
2012/12/31	-4.14%	-11.13%	-7.60%	-6.21%	-11.26%	-7.70%	-9.40%	-18.29%	-3.19%	-4.11%	-5.57%	-5.14%	-12.67%	-10.79%
2013/12/31	-13.69%	-15.49%	-13.09%	-12.00%	-12.69%	-3.50%	-15.48%	-17.16%	3.34%	-6.34%	-13.03%	-11.59%	-12.58%	-10.01%
2014/12/31	5.64%	5.74%	4.56%	-11.11%	5.27%	-16.23%	-0.80%	-2.49%	-3.54%	-5.37%	-8.46%	-13.23%	-7.17%	-8.39%
2015/12/31	-13.69%	-11.19%	-7.99%	-10.33%	-30.59%	-19.22%	-8.96%	-7.41%	-20.41%	4.65%	-25.76%	-20.00%	-15.57%	-19.31%
2016/12/30	-14.16%	-19.17%	-7.48%	-11.41%	-8.95%	-4.71%	5.12%	-2.48%	-1.62%	-12.19%	-4.18%	-5.23%	-9.15%	-13.97%
2017/12/29	-15.16%	-17.60%	-6.49%	-6.73%	2.26%	1.56%	-5.80%	-6.85%	-6.85%	-8.43%	-11.14%	-9.37%	-11.99%	-9.46%
2018/12/28	-11.05%	-11.56%	-12.75%	-12.21%	-2.39%	-4.19%	-12.28%	-12.18%	-21.87%	-21.14%	-15.78%	-12.90%	-8.97%	-11.07%
2019/12/31	-10.31%	-6.25%	-16.44%	-13.86%	1.03%	-6.54%	-14.06%	-10.60%	1.90%	5.90%	-12.04%	-9.36%	-10.36%	-7.95%
2020/12/31	14.63%	8.46%	-22.90%	-23.07%	-18.28%	-12.52%	-12.91%	-7.43%	-5.26%	-8.16%	-15.66%	-15.14%	-12.52%	-12.99%
2021/12/31	-9.54%	-15.76%	-12.14%	-14.82%	-14.83%	-16.20%	-6.76%	-10.11%	3.47%	-0.30%	-5.16%	-8.42%	-2.16%	0.67%
2022/7/29	3.57%	0.26%	-1.74%	-1.70%	-0.06%	-3.12%	2.80%	3.54%	-6.84%	-6.82%	-4.24%	-7.80%	-4.35%	-5.35%

数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

(4) 因子时间序列表现

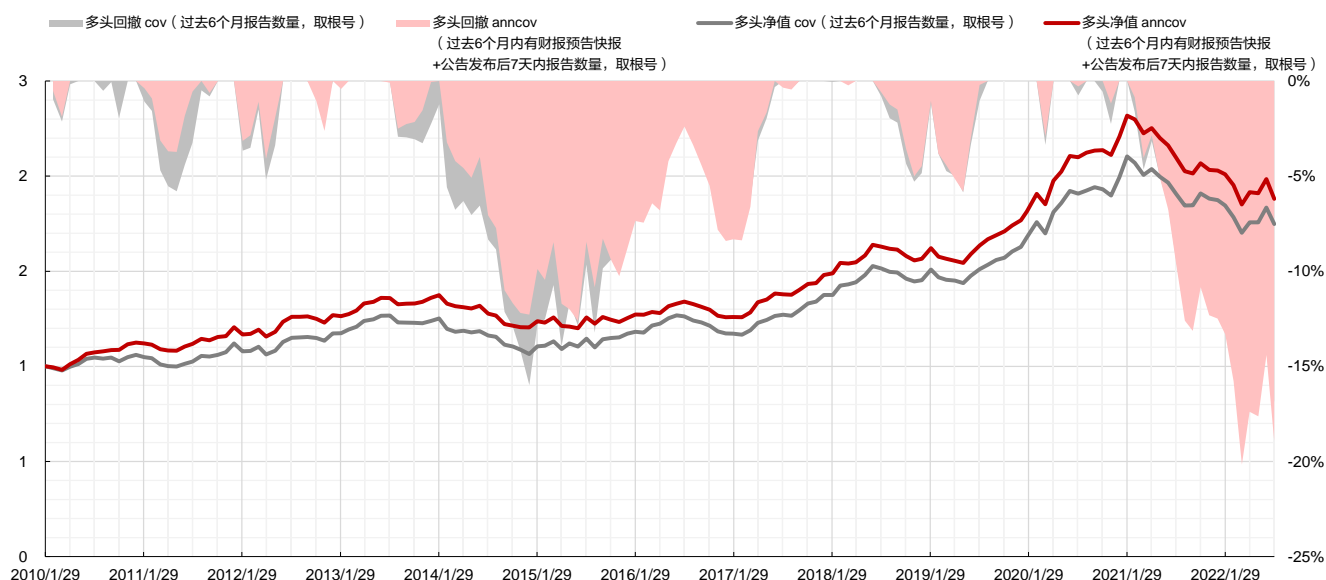
在全指中 anncov 因子表现略优于 cov 因子。多空组合年化收益和多头组合年化收益均提升 0.5% 左右，多空组合稳定性提升，最大回撤也有明显降低。

图 29: cov、anncov 因子多空组合净值&回撤（中性化，中证全指）



数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

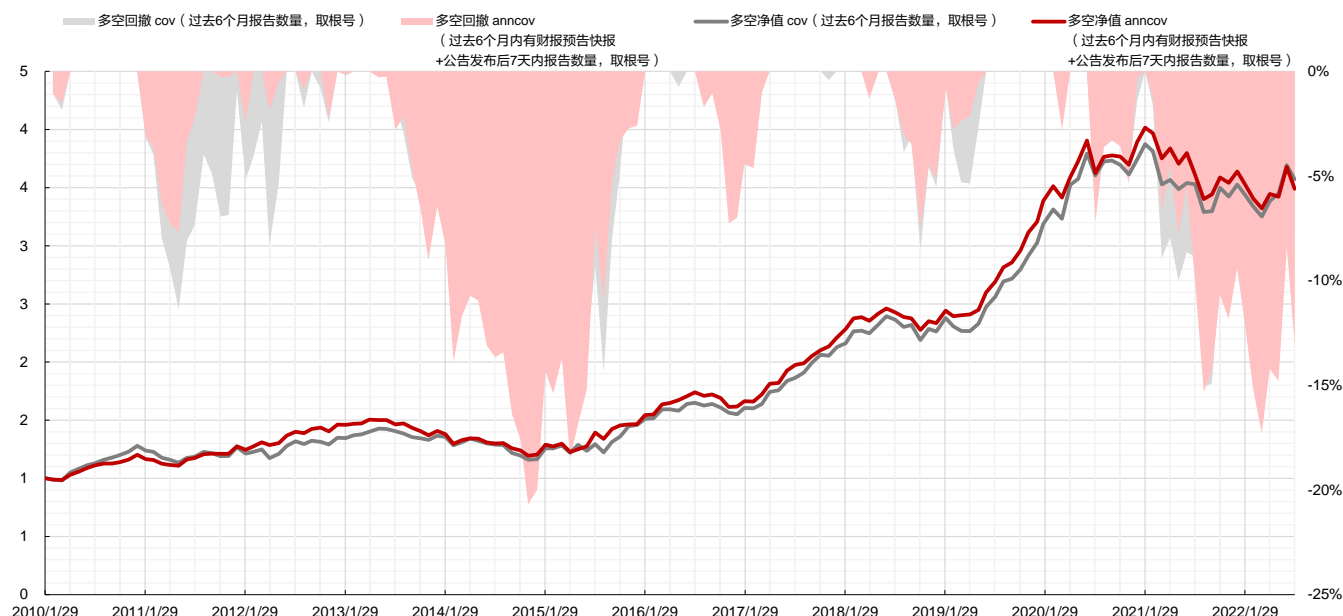
图 30: cov、anncov 因子多头组合净值&回撤（中性化，中证全指）



数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

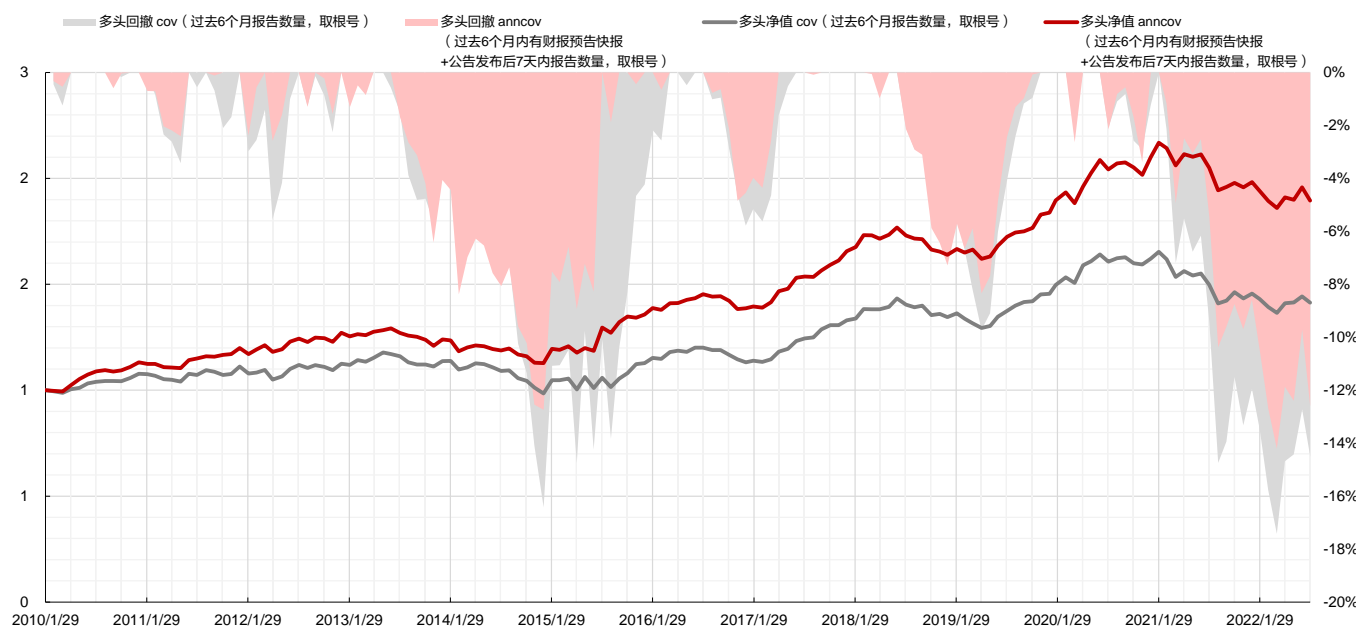
在中证 800 成份股中 anncov 因子的多空组合表现与 cov 因子整体差异不大，但多头组合优势明显。anncov 因子的多头组合年化收益相比 cov 因子提升近 3%，稳定性也有所提升，回撤更低。

图 31: cov、anncov 因子多空组合净值&回撤（中性化，中证 800）



数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

图 32: cov、anncov 因子多头组合净值&回撤（中性化，中证 800）



数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

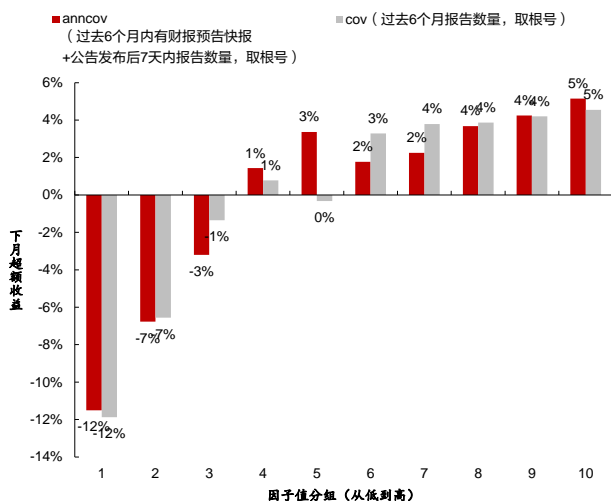
(5) 因子分组收益

在中证全指和中证 800 股票池中，anncov 因子的多头端收益均高于 cov 因子。

在中证全指中，anncov 因子值最大的一组收益最明显，多头端年化收益 5.2%。而 cov 因子值最大的四组收益基本相当，多头端第十组年化收益 4.5%，多头端单调性较差。

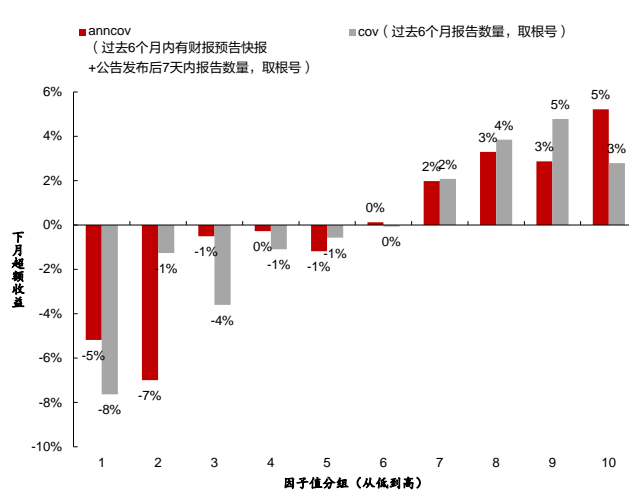
在中证 800 成分内，两个因子的分组差距更加明显。cov 因子值最大的一组并不是收益最明显的一组，因子值最大一组的年化收益仅 2.8%，而因子值最小一组的年化收益为-8%。anncov 因子仍然保持较好的单调性，因子值最大一组的年化收益最高，达到 5.2%，多头端收益与空头端基本相当。

图 33: cov、anncov 因子分组年化收益（中性化，中证全指，按因子值大小从低到高等分 10 组）



数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

图 34: cov、anncov 因子分组年化收益（中性化，中证 800 内，按因子值大小从低到高等分 10 组）



数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

(6) 因子相关性

从因子原始值间的两两相关系数来看，cov 和 anncov 因子间相关性较高，和其他常见的大类因子相关性都不高。与盈利、分析师、公司治理、估值类因子存在 40%左右的正相关性，与非流动性、投机类因子负相关。

图 35: cov、anncov 因子与常见大类因子的相关性

	cov6	anncov6	value_factor0	profit_factor0	growth_factor0	operation_factor0	liquid_factor0	lottery_factor0	analyst_factor0	mom_factor0
cov6	100%	93%	30%	45%	13%	35%	-20%	-6%	42%	16%
anncov6	93%	100%	30%	45%	13%	34%	-17%	-5%	41%	14%
value_factor0	30%	30%	100%	46%	0%	29%	15%	20%	18%	-12%
profit_factor0	45%	45%	46%	100%	16%	25%	-9%	-5%	38%	18%
growth_factor0	13%	13%	0%	16%	100%	1%	-8%	-12%	18%	23%
operation_factor0	35%	34%	29%	25%	1%	100%	-7%	2%	19%	-1%
liquid_factor0	-20%	-17%	15%	-9%	-8%	-7%	100%	24%	-9%	-26%
lottery_factor0	-6%	-5%	20%	-5%	-12%	2%	24%	100%	1%	-18%
analyst_factor0	42%	41%	18%	38%	18%	19%	-9%	1%	100%	17%
mom_factor0	16%	14%	-12%	18%	23%	-1%	-26%	-18%	17%	100%

数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

有关分析师的申明，见本报告最后部分。其他重要信息披露见分析师申明之后部分，或请与您的投资代表联系。并请阅读本证券研究报告最后一页的免责申明。

通过常见的截面回归方法进行正交化剔除后，可以看到：1. 两因子互相正交化后的残差因子均失去了选股效力。2. 两因子剔除其他常见因子之后，选股效果均不显著。

图 36: cov、anncov 因子残差选股表现

中证全指 回归法填充缺失值 行业市值中性化	anncov6 _ortho_cov6	cov6 _ortho_anncov6	anncov6 _ortho_all	cov6 _ortho_all
IC	0.30%	0.66%	0.26%	0.35%
IC_IR	28.94%	53.00%	16.15%	20.70%
tstat	102.32%	187.38%	57.29%	73.20%
long_short_r	0.08%	0.21%	0.29%	0.32%
long_short_win	54.00%	50.67%	54.97%	60.00%
long_short_sharp	14.48%	34.45%	64.97%	72.28%
long_short_drwdown	-20.59%	-12.58%	-13.58%	-16.77%
long_short_yearly	0.79%	2.37%	3.34%	3.73%
2010/12/31	0.08%	-0.76%	6.93%	4.62%
2011/12/30	6.74%	-2.55%	0.41%	1.71%
2012/12/31	5.92%	-2.58%	3.79%	4.85%
2013/12/31	5.64%	1.53%	-2.39%	1.82%
2014/12/31	0.66%	-6.88%	-9.58%	-13.04%
2015/12/31	-10.12%	26.40%	5.81%	9.03%
2016/12/30	5.79%	-1.58%	-1.42%	-1.89%
2017/12/29	6.06%	2.94%	10.09%	11.72%
2018/12/28	2.92%	-1.00%	4.34%	1.29%
2019/12/31	-3.90%	6.71%	7.96%	8.70%
2020/12/31	6.48%	-2.99%	17.10%	18.78%
2021/12/31	-12.32%	13.44%	-2.88%	2.08%
2022/7/29	-2.08%	0.54%	4.78%	0.28%

数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

五、分析师首次覆盖度因子表现

(1) 计算周期的选择

相同计算周期下，firstcov 因子表现均优于 cov 因子，组合夏普比更高。考虑到数据覆盖度问题，后续还是使用过去 6 个月的计算周期。

图 37：分析师首次覆盖度因子表现（行业市值中性化，中证全指，不同计算周期）

中证全指						
回归法填充缺失值 行业市值中性化	cov（过去6个月报告 数量，取根号）	firstcov	anafirstcov_org（过	cov（过去3个月报告 数量，取根号）	firstcov	anafirstcov_org（过
		（过去6个月首次覆盖	去6个月内有财报预告		（过去3个月首次覆盖	去3个月内有财报预告
		报告数量，取根号）	快报 +公告发布后7天内首 次关注机构覆盖数量， 取根号）		快报 +公告发布后7天内首 次关注机构覆盖数量， 取根号）	
IC	4.41%	3.44%	4.09%	4.41%	3.72%	2.74%
IC_IR	1.63	1.49	2.88	1.69	2.26	1.63
tstat	5.77	5.27	10.23	5.99	8.03	5.80
long_short_r	1.45%	1.51%	1.24%	1.51%	1.40%	0.97%
long_short_win	68.21%	66.89%	74.83%	69.54%	72.85%	72.19%
long_short_sharp	1.53	1.85	1.83	1.67	1.89	1.44
long_short_drwdown	-15.90%	-14.09%	-10.94%	-12.64%	-9.39%	-10.72%
long_short_yearly	17.86%	18.89%	15.43%	18.71%	17.38%	11.59%
long_r	0.40%	0.55%	0.39%	0.45%	0.48%	0.47%
long_win	56.29%	56.95%	58.94%	57.62%	62.25%	62.25%
long_sharp	62.85%	89.86%	75.40%	71.28%	81.91%	106.11%
long_drwdown	-19.07%	-16.26%	-12.67%	-19.49%	-12.44%	-9.47%
long_yearly	4.54%	6.43%	4.68%	5.14%	5.54%	5.59%
short_r	-1.05%	-0.97%	-0.85%	-1.05%	-0.93%	-0.50%
short_win	22.52%	22.52%	30.46%	19.87%	27.15%	37.75%
short_sharp	-239.21%	-242.91%	-143.39%	-250.37%	-180.05%	-79.46%
short_drwdown	-79.71%	-76.63%	-72.60%	-79.86%	-75.32%	-53.98%
short_yearly	-11.88%	-10.91%	-9.77%	-11.96%	-10.52%	-5.86%

数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

(2) 股票池的影响

两因子均是在小票中表现更好，在小票中 firstcov 因子相对 cov 因子的优势更为明显。在中证 500 和中证全指内中 firstcov 因子的优势最明显，多空组合年化收益能提升 1%，多头组合年化收益能提升 2%。在中证 800、创业板指、中证 1000 中，虽然多空组合年化收益有所下降，但夏普比略有提高，多头组合年化收益也有所提升。在沪深 300 中 firstcov 因子的表现不如 cov 因子。

图 38：分析师首次覆盖度因子表现（行业市值中性化，不同宽基指数）

	中证全指		中证800		沪深300		中证500		创业板指		中证1000	
	cov (过去6个月 报告数量, 取根 号)	firstcov (过去6个月首次 覆盖报告数量, 取根号)	cov (过去6个月 报告数量, 取根 号)	firstcov (过去6个月首次 覆盖报告数量, 取根号)	cov (过去6个月 报告数量, 取根 号)	firstcov (过去6个月首次 覆盖报告数量, 取根号)	cov (过去6个月 报告数量, 取根 号)	firstcov (过去6个月首次 覆盖报告数量, 取根号)	cov (过去6个月 报告数量, 取根 号)	firstcov (过去6个月首次 覆盖报告数量, 取根号)	cov (过去6个月 报告数量, 取根 号)	firstcov (过去6个月首次 覆盖报告数量, 取根号)
回归法填充缺失值 行业市值中性化												
IC	4.41%	3.44%	3.44%	2.33%	3.28%	1.49%	3.86%	3.24%	5.63%	3.81%	5.12%	4.52%
IC_IR	1.63	1.49	1.11	0.92	0.95	0.55	1.33	1.34	1.57	1.07	1.71	1.81
tstat	5.77	5.27	3.92	3.27	3.36	1.95	4.72	4.75	5.44	3.71	6.08	6.43
long_short_r	1.45%	1.51%	0.92%	0.87%	0.79%	0.46%	0.75%	0.83%	1.62%	1.45%	1.77%	1.71%
long_short_win	68.21%	66.89%	58.28%	65.56%	59.60%	55.63%	64.24%	66.89%	59.72%	62.50%	72.19%	73.51%
long_short_sharp	1.53	1.85	0.97	1.12	0.88	0.61	0.93	1.28	0.97	0.96	1.67	2.03
long_short_drwindown	-15.90%	-14.09%	-18.76%	-18.12%	-25.27%	-23.30%	-23.72%	-12.54%	-26.36%	-29.26%	-15.95%	-8.67%
long_short_yearly	17.86%	18.89%	10.65%	10.34%	9.26%	5.33%	8.60%	9.82%	18.62%	16.59%	22.25%	21.49%
2010/12/31	29.88%	22.93%	31.61%	6.19%	3.06%	1.71%	27.35%	16.43%	4.68%	14.66%	27.23%	21.83%
2011/12/30	8.43%	6.22%	-0.92%	9.13%	11.81%	8.28%	1.12%	-1.67%	35.00%	10.17%	3.82%	7.07%
2012/12/31	14.80%	19.29%	6.42%	16.35%	3.15%	3.71%	8.95%	18.00%	40.77%	13.71%	17.61%	24.53%
2013/12/31	16.62%	26.95%	1.24%	9.34%	-1.27%	-0.11%	0.46%	4.01%	-1.92%	14.14%	18.54%	21.49%
2014/12/31	-14.06%	-8.18%	-14.75%	-17.76%	-18.44%	-18.34%	-18.48%	-8.54%	-5.82%	15.63%	-2.37%	0.76%
2015/12/31	43.37%	58.96%	25.26%	27.29%	18.73%	9.55%	14.37%	29.58%	22.15%	18.53%	46.51%	56.46%
2016/12/30	10.14%	12.57%	6.37%	0.32%	10.11%	4.45%	9.10%	-1.75%	8.81%	3.47%	16.18%	20.48%
2017/12/29	30.37%	20.84%	37.15%	28.53%	28.65%	24.30%	28.79%	24.44%	29.60%	42.26%	34.28%	34.93%
2018/12/28	23.13%	20.51%	6.37%	11.73%	8.16%	4.44%	16.74%	17.41%	48.48%	67.75%	25.11%	25.96%
2019/12/31	32.38%	22.27%	33.71%	19.35%	36.23%	23.95%	19.92%	13.31%	31.01%	5.28%	37.77%	24.69%
2020/12/31	44.11%	36.80%	23.71%	30.56%	36.48%	12.01%	20.86%	24.13%	22.12%	35.42%	58.35%	42.75%
2021/12/31	6.10%	15.13%	-5.81%	6.71%	-7.98%	-5.69%	-5.95%	3.64%	-13.88%	-19.50%	13.18%	14.14%
2022/7/29	-1.78%	0.15%	1.33%	-5.28%	2.12%	4.48%	-1.36%	-4.33%	23.41%	3.22%	1.04%	-6.63%
long_r	0.40%	0.55%	0.27%	0.38%	0.30%	0.10%	0.34%	0.46%	0.62%	0.70%	0.59%	0.61%
long_win	56.29%	56.95%	56.95%	58.28%	60.26%	52.32%	58.28%	62.91%	56.94%	56.94%	57.62%	61.59%
long_sharp	62.85%	89.86%	42.85%	71.37%	54.28%	22.16%	70.48%	113.95%	59.93%	67.02%	87.70%	101.05%
long_drwindown	-19.07%	-16.26%	-17.42%	-17.48%	-17.98%	-14.90%	-14.29%	-8.91%	-20.74%	-26.83%	-11.64%	-10.46%
long_yearly	4.54%	6.43%	2.79%	4.51%	3.39%	1.10%	3.91%	5.43%	7.19%	8.05%	6.91%	7.23%
2010/12/31	7.30%	7.55%	10.66%	2.18%	-3.08%	-4.08%	14.02%	9.49%	-5.36%	3.55%	13.98%	8.28%
2011/12/30	5.67%	1.04%	3.15%	2.03%	8.60%	7.09%	0.92%	-3.23%	21.66%	-4.30%	-0.32%	-2.08%
2012/12/31	4.76%	6.39%	1.25%	5.19%	2.92%	-1.41%	1.88%	6.17%	21.87%	6.91%	5.52%	8.81%
2013/12/31	5.60%	14.24%	1.09%	7.04%	0.49%	1.62%	0.64%	5.66%	3.18%	25.86%	7.94%	16.91%
2014/12/31	-14.05%	-14.27%	-13.47%	-16.52%	-14.60%	-12.49%	-11.92%	-5.43%	-7.51%	2.15%	-9.01%	-7.82%
2015/12/31	9.99%	15.98%	14.59%	17.65%	15.14%	3.23%	10.51%	18.08%	6.75%	13.24%	12.48%	18.00%
2016/12/30	0.09%	0.73%	0.35%	-2.56%	0.23%	0.07%	3.07%	0.67%	3.36%	4.89%	3.72%	1.93%
2017/12/29	17.31%	12.57%	17.52%	10.34%	8.36%	7.10%	14.53%	11.78%	19.21%	30.29%	16.61%	13.02%
2018/12/28	5.64%	8.22%	1.12%	4.59%	1.86%	-0.90%	7.14%	8.73%	10.94%	22.45%	5.53%	9.41%
2019/12/31	12.02%	10.77%	8.20%	9.44%	13.88%	10.51%	9.19%	6.08%	5.71%	1.80%	12.04%	8.62%
2020/12/31	22.52%	23.45%	11.39%	23.27%	17.28%	3.18%	12.99%	19.64%	6.27%	5.47%	24.97%	24.04%
2021/12/31	-6.03%	5.32%	-10.20%	5.08%	-2.31%	-3.04%	-6.95%	1.31%	-9.79%	-12.28%	0.89%	5.30%
2022/7/29	-6.69%	-4.78%	-2.90%	-5.48%	-0.62%	4.11%	-1.28%	-5.63%	12.69%	2.49%	-2.32%	-7.67%
short_r	-1.05%	-0.97%	-0.65%	-0.49%	-0.48%	-0.36%	-0.40%	-0.37%	-1.00%	-0.75%	-1.18%	-1.10%
short_win	22.52%	22.52%	38.41%	35.76%	36.42%	39.07%	36.42%	39.07%	36.11%	39.58%	19.87%	18.54%
short_sharp	-239.21%	-242.91%	-141.73%	-118.95%	-94.29%	-81.72%	-102.54%	-107.38%	-95.97%	-73.85%	-224.61%	-244.57%
short_drwindown	-79.71%	-76.63%	-63.86%	-54.30%	-55.21%	-45.35%	-47.15%	-43.53%	-78.11%	-71.28%	-83.58%	-81.28%
short_yearly	-11.88%	-10.91%	-7.63%	-5.64%	-5.92%	-4.43%	-4.72%	-4.28%	-11.58%	-8.87%	-13.33%	-12.26%
2010/12/31	-17.98%	-12.98%	-16.51%	-3.99%	-6.04%	-5.77%	-10.81%	-6.15%	-9.75%	-11.04%	-11.17%	-11.87%
2011/12/30	-3.12%	-5.17%	3.54%	-6.74%	-3.32%	-1.45%	-0.61%	-1.79%	-10.77%	-13.43%	-4.72%	-8.75%
2012/12/31	-9.50%	-11.32%	-5.36%	-9.95%	-0.63%	-5.25%	-7.00%	-10.28%	-14.64%	-6.83%	-11.02%	-13.14%
2013/12/31	-9.71%	-10.28%	-0.18%	-2.39%	1.55%	1.53%	-0.03%	1.37%	2.59%	7.89%	-9.70%	-3.95%
2014/12/31	-0.44%	-7.01%	1.21%	1.42%	4.25%	6.82%	7.76%	3.24%	-2.04%	-12.86%	-7.14%	-8.61%
2015/12/31	-24.63%	-28.61%	-9.10%	-8.15%	-3.59%	-6.25%	-4.21%	-9.68%	-16.82%	-7.91%	-25.17%	-25.79%
2016/12/30	-9.71%	-10.82%	-5.92%	-3.07%	-9.42%	-4.41%	-5.81%	2.41%	-5.89%	0.21%	-11.48%	-16.17%
2017/12/29	-10.32%	-6.99%	-14.85%	-14.52%	-16.37%	-14.27%	-11.41%	-10.43%	-9.22%	-9.61%	-13.62%	-16.73%
2018/12/28	-14.65%	-10.44%	-5.43%	-6.76%	-6.14%	-5.24%	-8.47%	-7.63%	-27.68%	-29.07%	-16.11%	-13.59%
2019/12/31	-15.89%	-9.71%	-19.86%	-8.55%	-17.29%	-11.55%	-9.49%	-6.59%	-20.68%	-4.06%	-19.29%	-13.31%
2020/12/31	-15.61%	-10.05%	-10.92%	-6.24%	-14.96%	-8.53%	-7.05%	-3.99%	-16.88%	-24.07%	-21.95%	-13.65%
2021/12/31	-11.75%	-8.76%	-5.19%	-2.16%	5.34%	1.96%	-1.40%	-2.45%	1.03%	7.48%	-11.72%	-8.20%
2022/7/29	-5.41%	-5.16%	-4.64%	-0.56%	-3.27%	-0.76%	-0.18%	-1.68%	-9.20%	-1.15%	-3.78%	-1.46%

数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

两因子均在高机构持仓占比的股票池中表现较差，在低持仓分组中 firstcov 因子的优势更明显。在第一组中 firstcov 因子的多空组合年化收益相比 cov 因子提高了 2.5%，最大回撤也有所降低。其次在第五组中其多空组合年化收益相比 cov 因子也提高 2%，最大回撤大幅降低。在中间组中其表现略逊于 cov 因子。此外在所有分组下 firstcov 因子多头组合收益均高于 cov 因子。

图 39：分析师首次覆盖度因子表现（行业市值中性化，中证全指内不同机构持仓分组）

	0 (中证全指)		1 (低机构持仓占比)		2	3	4	5 (高机构持仓占比)				
回归法填充缺失值 行业市值中性化	cov (过去6个月 月报告数量, 取 根号)	firstcov (过去6个月首 次覆盖报告数 量, 取根号)	cov (过去6个月 月报告数量, 取 根号)	firstcov (过去6个月首 次覆盖报告数 量, 取根号)	cov (过去6个月 月报告数量, 取 根号)	firstcov (过去6个月首 次覆盖报告数 量, 取根号)	cov (过去6个月 月报告数量, 取 根号)	firstcov (过去6个月首 次覆盖报告数 量, 取根号)	cov (过去6个月 月报告数量, 取 根号)	firstcov (过去6个月首 次覆盖报告数 量, 取根号)	cov (过去6个月 月报告数量, 取 根号)	firstcov (过去6个月首 次覆盖报告数 量, 取根号)
IC	4.41%	3.44%	4.74%	5.11%	3.66%	3.18%	3.39%	2.87%	3.24%	2.33%	3.06%	2.40%
IC_IR	1.63	1.49	1.93	2.36	1.64	1.77	1.43	1.37	1.32	1.01	1.19	0.97
tstat	5.77	5.27	6.86	8.38	5.83	6.28	5.08	4.85	4.69	3.58	4.23	3.45
long_short_r	1.45%	1.51%	1.59%	1.76%	1.40%	1.19%	1.57%	1.57%	1.35%	1.32%	0.80%	0.95%
long_short_win	68.21%	66.89%	70.20%	74.83%	66.23%	66.89%	69.54%	68.21%	62.91%	66.89%	58.94%	64.90%
long_short_sharp	1.53	1.85	1.59	1.91	1.51	1.36	1.74	1.64	1.44	1.36	0.75	0.97
long_short_drwdown	-15.90%	-14.09%	-12.63%	-10.41%	-10.83%	-17.53%	-9.91%	-10.47%	-14.72%	-15.08%	-27.26%	-15.80%
long_short_yearly	17.86%	18.89%	19.85%	22.26%	17.01%	14.42%	19.67%	19.21%	17.18%	16.40%	9.35%	11.20%
2010/12/31	29.88%	22.93%	18.30%	17.41%	8.77%	15.14%	29.75%	38.84%	-0.07%	3.46%	1.60%	10.06%
2011/12/30	8.43%	6.22%	11.96%	12.73%	4.54%	-2.19%	14.52%	4.17%	14.30%	10.92%	0.84%	3.02%
2012/12/31	14.80%	19.29%	15.92%	18.80%	12.29%	14.35%	2.51%	27.48%	5.27%	13.83%	11.41%	17.30%
2013/12/31	16.62%	26.95%	26.90%	14.13%	27.64%	26.32%	31.66%	33.49%	12.26%	29.73%	11.76%	3.20%
2014/12/31	-14.06%	-8.18%	1.88%	4.12%	-3.26%	-11.20%	-4.52%	4.25%	-7.22%	-5.87%	-18.34%	3.77%
2015/12/31	43.37%	58.96%	42.05%	68.80%	52.65%	47.32%	42.52%	57.54%	40.07%	48.90%	15.46%	11.63%
2016/12/30	10.14%	12.57%	20.94%	12.85%	14.18%	0.37%	3.54%	5.73%	13.18%	-0.62%	8.40%	14.06%
2017/12/29	30.37%	20.84%	21.79%	10.19%	18.66%	26.07%	29.71%	20.41%	29.62%	13.37%	20.46%	23.47%
2018/12/28	23.13%	20.51%	14.07%	17.21%	24.26%	16.20%	24.62%	11.57%	37.14%	36.30%	33.65%	30.14%
2019/12/31	32.38%	22.27%	19.33%	30.27%	21.61%	22.67%	28.25%	17.59%	39.26%	18.21%	32.72%	6.79%
2020/12/31	44.11%	36.80%	38.53%	56.09%	27.02%	27.15%	44.93%	30.30%	48.09%	44.99%	22.53%	24.90%
2021/12/31	6.10%	15.13%	21.79%	30.64%	22.43%	12.86%	10.35%	10.27%	5.77%	15.47%	-12.61%	1.50%
2022/7/29	-1.78%	0.15%	3.63%	5.87%	-1.11%	1.61%	4.88%	0.09%	-8.32%	-7.04%	-3.24%	
long_r	0.40%	0.55%	0.40%	0.49%	0.41%	0.50%	0.59%	0.71%	0.46%	0.54%	0.15%	0.35%
long_win	56.29%	56.95%	59.60%	59.60%	56.95%	62.25%	62.91%	62.25%	58.94%	58.94%	55.63%	58.94%
long_sharp	62.85%	89.86%	55.64%	67.25%	66.52%	77.62%	96.88%	106.41%	71.61%	82.39%	28.07%	57.81%
long_drwdown	-19.07%	-16.26%	-14.68%	-15.09%	-11.87%	-17.64%	-9.63%	-12.96%	-17.45%	-12.91%	-18.20%	-9.75%
long_yearly	4.54%	6.43%	4.36%	5.61%	4.52%	5.82%	6.98%	8.21%	5.46%	6.32%	1.72%	4.07%
2010/12/31	7.30%	7.55%	5.94%	0.78%	7.82%	7.03%	11.91%	24.04%	-1.13%	1.62%	-0.14%	-1.92%
2011/12/30	5.67%	1.04%	3.70%	1.82%	-4.29%	-3.09%	5.16%	-3.02%	7.03%	8.53%	0.66%	1.70%
2012/12/31	4.76%	6.39%	5.47%	2.62%	4.32%	3.67%	-4.14%	9.06%	-0.46%	1.70%	5.32%	8.95%
2013/12/31	5.60%	14.24%	18.57%	15.64%	11.62%	13.18%	12.28%	15.36%	6.68%	13.49%	4.37%	6.54%
2014/12/31	-14.05%	-14.27%	-10.69%	-9.90%	-8.30%	-14.44%	-5.58%	-9.79%	-13.43%	-12.32%	-9.10%	-4.20%
2015/12/31	9.99%	15.98%	0.60%	12.05%	9.65%	24.10%	10.72%	12.49%	14.48%	25.50%	0.79%	11.77%
2016/12/30	0.09%	0.73%	5.89%	2.40%	-2.39%	-2.98%	-1.88%	-3.11%	4.66%	-3.55%	4.00%	4.73%
2017/12/29	17.31%	12.57%	12.01%	9.83%	15.04%	18.21%	15.40%	19.02%	17.40%	3.59%	6.05%	2.99%
2018/12/28	5.64%	8.22%	3.85%	8.30%	8.81%	9.30%	9.16%	8.20%	12.60%	13.93%	5.89%	13.00%
2019/12/31	12.02%	10.77%	3.69%	8.79%	11.26%	11.71%	12.95%	6.63%	13.35%	10.50%	7.34%	-0.48%
2020/12/31	22.52%	23.45%	13.05%	21.46%	14.13%	13.09%	25.20%	25.58%	25.26%	25.59%	2.81%	8.37%
2021/12/31	-6.03%	5.32%	2.28%	8.52%	2.52%	5.64%	5.05%	11.88%	-1.16%	5.73%	-6.12%	-0.17%
2022/7/29	-6.69%	-4.78%	-4.52%	-7.29%	-7.25%	-5.17%	-3.33%	-2.16%	-10.69%	-7.79%	-0.16%	0.66%
short_r	-1.05%	-0.97%	-1.19%	-1.27%	-1.00%	-0.69%	-0.98%	-0.86%	-0.89%	-0.79%	-0.65%	-0.60%
short_win	22.52%	22.52%	23.84%	25.83%	27.81%	33.77%	27.15%	29.14%	32.45%	29.14%	38.41%	37.09%
short_sharp	-239.21%	-242.91%	-212.20%	-207.47%	-175.86%	-124.92%	-200.80%	-145.08%	-174.55%	-148.18%	-95.28%	-103.25%
short_drwdown	-79.71%	-76.63%	-84.42%	-85.78%	-78.96%	-65.09%	-77.67%	-74.62%	-75.60%	-72.20%	-67.92%	-62.53%
short_yearly	-11.88%	-10.91%	-13.60%	-14.26%	-11.31%	-8.02%	-11.20%	-9.87%	-10.58%	-9.29%	-7.90%	-7.09%
2010/12/31	-17.98%	-12.98%	-11.47%	-14.73%	-1.60%	-7.23%	-14.14%	-11.49%	-1.41%	-2.18%	-2.32%	-11.84%
2011/12/30	-3.12%	-5.17%	-8.08%	-10.25%	-8.78%	-1.15%	-8.70%	-7.35%	-6.76%	-2.40%	-0.80%	-1.83%
2012/12/31	-9.50%	-11.32%	-9.84%	-14.29%	-7.57%	-9.48%	-7.21%	-14.93%	-6.03%	-10.99%	-6.09%	-7.70%
2013/12/31	-9.71%	-10.28%	-7.28%	0.36%	-12.97%	-10.76%	-15.45%	-14.09%	-5.17%	-13.01%	-7.20%	2.89%
2014/12/31	-0.44%	-7.01%	-12.64%	-13.92%	-5.90%	-4.49%	-1.21%	-13.55%	-7.11%	-7.01%	9.73%	-8.20%
2015/12/31	-24.63%	-28.61%	-31.15%	-35.34%	-29.80%	-17.87%	-23.87%	-31.33%	-19.14%	-18.26%	-15.17%	-1.52%
2016/12/30	-9.71%	-10.82%	-12.77%	-9.57%	-14.97%	-3.58%	-5.69%	-8.67%	-8.73%	-3.51%	-4.37%	-8.65%
2017/12/29	-10.32%	-6.99%	-8.52%	-0.37%	-3.35%	-6.35%	-11.47%	-1.42%	-9.77%	-8.90%	-12.56%	-17.14%
2018/12/28	-14.65%	-10.44%	-9.23%	-8.05%	-12.78%	-6.24%	-12.83%	-3.10%	-18.56%	-16.95%	-21.60%	-13.94%
2019/12/31	-15.89%	-9.71%	-13.55%	-17.06%	-9.01%	-9.25%	-12.64%	-9.71%	-19.34%	-6.81%	-20.16%	-7.10%
2020/12/31	-15.61%	-10.05%	-19.05%	-22.92%	-11.19%	-11.77%	-14.41%	-4.29%	-16.07%	-13.91%	-16.99%	-14.44%
2021/12/31	-11.75%	-8.76%	-16.29%	-17.46%	-17.07%	-7.00%	-4.96%	1.07%	-7.23%	-9.07%	6.60%	-2.23%
2022/7/29	-5.41%	-5.16%	-8.11%	-12.59%	-6.40%	-6.81%	-8.01%	-2.59%	-2.86%	-1.53%	-1.76%	4.01%

数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

有关分析师的申明，见本报告最后部分。其他重要信息披露见分析师申明之后部分，或请与您的投资代表联系。并阅读本证券研究报告最后一页的免责声明。

在食品饮料、周期、医药生物、TMT 行业中，firstcov 因子的表现优于 cov 因子。在食品饮料行业中优势尤为突出，多空组合年化收益提升 2%，多头组合年化收益提升 4.5%。在周期行业中，多空组合和多头组合年化收益可提升 2%。在医药生物、TMT 行业中，多空组合夏普比有所提升，最大回撤降低。

图 40: 分析师首次覆盖度因子表现 (行业市值中性化, 中证全指内不同行业)

	食品饮料				电力设备		国防军工		医药生物		家用电器		TMT		周期	
中证全指													电子, 计算机, 通信, 传媒		公用事业, 有色金属, 钢铁, 房地产, 基础化工, 石油石化, 煤炭	
回归法填补失真 行业市值中位化	cov (过去6个月 月报告数量, 取 根号)	firstcov (过去6个月首 次覆盖报告数 量, 取根号)	cov (过去6个月 月报告数量, 取 根号)	firstcov (过去6个月首 次覆盖报告数 量, 取根号)	cov (过去6个月 月报告数量, 取 根号)	firstcov (过去6个月首 次覆盖报告数 量, 取根号)	cov (过去6个月 月报告数量, 取 根号)	firstcov (过去6个月首 次覆盖报告数 量, 取根号)	cov (过去6个月 月报告数量, 取 根号)	firstcov (过去6个月首 次覆盖报告数 量, 取根号)	cov (过去6个月 月报告数量, 取 根号)	firstcov (过去6个月首 次覆盖报告数 量, 取根号)	cov (过去6个月 月报告数量, 取 根号)	firstcov (过去6个月首 次覆盖报告数 量, 取根号)	cov (过去6个月 月报告数量, 取 根号)	firstcov (过去6个月首 次覆盖报告数 量, 取根号)
IC	4.76%	3.20%	5.58%	3.98%	4.96%	4.09%	5.59%	4.06%	1.95%	0.63%	5.04%	4.05%	4.14%	3.07%		
IC_IR	0.82	0.58	1.26	0.94	0.83	0.77	1.24	0.99	0.37	0.12	1.31	1.17	1.75	1.36		
tstat	2.91	2.07	4.47	3.35	2.95	2.73	4.39	3.51	1.31	0.41	4.64	4.16	6.21	4.81		
long_short_r	0.91%	1.02%	1.55%	1.20%	1.01%	0.69%	1.33%	1.22%	0.68%	0.52%	1.53%	1.53%	1.12%	1.24%		
long_short_win	58.94%	60.93%	57.62%	60.93%	57.62%	52.98%	60.26%	62.91%	58.94%	55.63%	64.24%	69.54%	68.21%	68.87%		
long_short_sharp	0.53	0.64	1.08	0.84	0.58	0.46	1.10	1.13	0.41	0.33	1.41	1.61	1.62	1.71		
long_short_drdown	-45.27%	-37.14%	-28.41%	-28.66%	-39.57%	-39.70%	-20.20%	-12.71%	-37.58%	-45.53%	-14.99%	-11.66%	-10.54%	-9.67%		
long_short_yearly	8.94%	10.57%	17.45%	14.01%	9.81%	6.81%	15.30%	14.33%	6.68%	3.75%	18.87%	18.85%	13.92%	15.51%		
2010/12/31	23.84%	21.99%	29.31%	10.43%	29.52%	51.33%	27.74%	36.58%	13.08%	-4.64%	32.83%	34.38%	5.20%	9.89%		
2011/12/30	-2.97%	13.26%	-11.68%	-0.74%	2.37%	-15.12%	21.65%	6.96%	-19.41%	-21.96%	3.44%	6.38%	-1.09%	-1.13%		
2012/12/31	6.16%	15.08%	20.55%	18.75%	19.69%	3.33%	15.58%	24.23%	9.06%	3.56%	11.31%	11.31%	20.87%	17.81%		
2013/12/31	29.01%	34.16%	24.19%	11.15%	9.72%	14.79%	31.54%	20.28%	3.83%	19.01%	34.56%	26.82%	13.62%	16.03%		
2014/12/31	-22.52%	-12.88%	-6.33%	9.11%	-29.36%	-28.30%	-1.89%	-0.95%	-7.83%	1.57%	0.98%	11.96%	2.70%	-2.15%		
2015/12/31	8.51%	-8.12%	3.23%	-10.96%	64.88%	19.98%	20.48%	22.74%	30.88%	34.77%	53.23%	42.60%	20.25%	43.15%		
2016/12/30	15.54%	-2.91%	-0.14%	23.68%	3.83%	-6.03%	-5.58%	-2.07%	20.11%	27.79%	7.74%	1.48%	10.99%	14.20%		
2017/12/29	46.73%	60.22%	27.86%	23.86%	-1.32%	2.11%	12.89%	17.53%	44.98%	24.49%	23.64%	21.39%	30.57%	23.21%		
2018/12/28	34.58%	34.59%	10.60%	16.80%	6.01%	8.21%	27.66%	12.03%	33.01%	17.23%	27.32%	31.79%	16.94%	15.60%		
2019/12/31	17.41%	11.73%	43.55%	10.96%	-8.90%	5.19%	34.86%	28.36%	9.56%	5.19%	23.13%	20.30%	23.27%	17.03%		
2020/12/31	-2.53%	14.20%	87.06%	33.71%	26.36%	11.09%	33.64%	28.12%	4.81%	1.20%	34.72%	30.80%	28.38%	28.43%		
2021/12/31	-4.88%	-3.33%	26.86%	30.14%	36.98%	38.76%	2.42%	-0.35%	-24.24%	-21.42%	7.54%	14.97%	6.15%	16.59%		
2022/7/29	-11.82%	-15.75%	7.36%	4.19%	0.13%	5.56%	-7.71%	0.98%	-13.22%	-10.14%	-3.76%	-3.20%	3.06%	3.12%		
long_r	0.38%	0.71%	0.86%	0.74%	0.31%	0.08%	0.64%	0.40%	0.39%	0.05%	0.59%	0.34%	0.49%	0.49%		
long_win	56.29%	58.94%	56.29%	60.93%	50.99%	50.99%	58.28%	53.64%	58.28%	54.30%	59.60%	62.25%	56.95%	62.25%		
long_sharp	37.53%	75.25%	89.74%	85.44%	30.64%	8.25%	87.52%	57.51%	34.90%	5.14%	86.64%	97.61%	68.28%	86.60%		
long_drdown	-32.17%	-26.29%	-16.53%	-13.20%	-30.60%	-37.75%	-15.26%	-21.65%	-39.00%	-37.55%	-13.47%	-10.58%	-11.65%	-12.71%		
long_yearly	3.76%	8.03%	9.62%	8.64%	2.88%	0.09%	7.21%	4.31%	3.86%	-0.62%	6.70%	7.13%	3.91%	5.75%		
2010/12/31	8.85%	18.46%	26.54%	21.51%	16.26%	14.05%	11.59%	8.34%	17.31%	1.05%	14.15%	16.21%	0.28%	5.00%		
2011/12/30	4.49%	5.07%	-3.06%	-0.85%	2.78%	-11.88%	13.09%	-0.38%	-4.69%	-9.81%	1.62%	3.62%	-1.68%	-3.04%		
2012/12/31	3.48%	13.48%	11.89%	13.17%	8.59%	0.90%	6.17%	10.45%	6.79%	3.76%	6.47%	7.54%	5.97%	5.20%		
2013/12/31	14.45%	15.48%	9.32%	5.67%	-4.00%	7.23%	11.90%	9.64%	9.07%	9.42%	18.76%	13.45%	-0.49%	7.14%		
2014/12/31	-17.80%	-4.70%	-0.85%	1.57%	-21.61%	-21.55%	-1.88%	-5.74%	-9.95%	-7.23%	-6.69%	-1.01%	-4.56%	-10.60%		
2015/12/31	-4.39%	-2.97%	-3.52%	-2.66%	20.95%	1.74%	12.29%	9.05%	6.21%	4.03%	16.74%	15.79%	2.56%	7.97%		
2016/12/30	0.20%	-0.88%	-5.92%	6.96%	-3.13%	-6.58%	-0.44%	-5.30%	18.76%	11.12%	3.86%	-0.06%	1.14%	4.03%		
2017/12/29	25.42%	25.22%	20.41%	16.41%	1.81%	-8.18%	6.84%	10.65%	36.13%	17.01%	10.25%	9.00%	15.32%	16.84%		
2018/12/28	20.97%	24.74%	-2.97%	3.30%	5.10%	4.76%	12.64%	8.10%	5.26%	2.99%	8.03%	15.35%	6.61%	5.77%		
2019/12/31	5.79%	2.37%	21.06%	7.05%	-6.82%	2.31%	16.66%	16.37%	13.65%	12.67%	9.03%	7.42%	10.98%	7.68%		
2020/12/31	15.79%	39.29%	46.70%	13.90%	5.45%	-2.57%	18.32%	19.10%	3.65%	-5.22%	14.53%	12.89%	12.80%	16.61%		
2021/12/31	-11.29%	-7.54%	13.52%	22.76%	20.25%	22.09%	-4.19%	-14.76%	-20.99%	-23.49%	2.18%	3.16%	4.28%	14.38%		
2022/7/29	-7.84%	-13.17%	6.01%	3.55%	0.82%	9.50%	-4.04%	-2.54%	-18.42%	-9.76%	-7.61%	-7.93%	-1.32%	-1.00%		
short_r	-0.53%	-0.32%	-0.69%	-0.46%	-0.70%	-0.62%	-0.69%	-0.82%	-0.29%	-0.47%	-0.97%	-0.92%	-0.78%	-0.75%		
short_win	43.05%	42.38%	43.05%	43.71%	41.06%	45.70%	39.07%	34.44%	46.36%	43.05%	32.45%	25.83%	21.19%	25.17%		
short_sharp	-53.15%	-33.80%	-91.72%	-59.88%	-63.13%	-65.09%	-114.52%	-144.14%	-31.76%	-49.35%	-175.01%	-207.26%	-259.95%	-181.57%		
short_drdown	-67.43%	-53.69%	-69.42%	-61.49%	-69.99%	-66.11%	-65.93%	-71.57%	-55.06%	-66.09%	-77.47%	-75.24%	-70.00%	-68.69%		
short_yearly	-6.75%	-4.05%	-7.82%	-6.02%	-8.43%	-7.93%	-9.51%	-4.25%	-9.79%	-11.06%	-10.44%	-9.09%	-8.79%			
2010/12/31	-14.87%	-5.79%	-5.08%	7.61%	-12.24%	-26.52%	-13.88%	-21.88%	2.26%	3.60%	-14.67%	-14.37%	-4.73%	-4.53%		
2011/12/30	1.58%	-9.24%	8.78%	-1.33%	-1.32%	1.84%	-7.88%	-7.43%	14.50%	11.69%	-2.71%	-3.24%	-0.86%	-2.16%		
2012/12/31	-4.14%	-3.45%	-7.60%	-5.44%	-11.26%	-2.94%	-9.40%	-12.64%	-3.19%	-0.03%	-4.07%	-12.67%	-10.97%			
2013/12/31	-13.69%	-16.40%	-13.09%	-5.72%	-12.69%	-7.85%	-15.48%	-9.47%	3.34%	-9.93%	-13.03%	-11.37%	-12.58%	-7.96%		
2014/12/31	5.64%	8.37%	4.56%	-7.74%	5.27%	5.36%	-0.80%	-5.76%	-3.54%	-9.10%	-12.12%	-17.17%	-8.72%			
2015/12/31	-13.69%	3.11%	-7.99%	4.81%	-30.59%	-17.97%	-8.96%	-12.42%	-20.41%	-26.06%	-25.76%	-19.91%	-15.57%	-26.48%		
2016/12/30	-14.16%	0.86%	-7.48%	-15.14%	-8.95%	-1.85%	5.12%	-3.80%	-1.62%	-14.31%	-4.18%	-1.78%	-9.15%	-9.14%		
2017/12/29	-15.16%	-22.90%	-6.49%	-6.54%	2.26%	-10.85%	-5.80%	-6.13%	-6.85%	-11.14%	-10.51%	-11.99%	-5.29%			
2018/12/28	-11.05%	-7.99%	-12.75%	-12.77%	-2.39%	-4.37%	-12.28%	-3.82%	-21.87%	-12.96%	-15.78%	-13.07%	-8.97%	-8.63%		
2019/12/31	-10.31%	-9.02%	-16.44%	-3.98%	1.03%	-3.01%	-14.06%	-12.04%	1.90%	5.67%	-10.36%	-11.31%	-10.36%	-8.16%		
2020/12/31	14.63%	18.87%	-22.90%	-15.95%	-18.28%	-13.52%	-12.91%	-8.34%	-5.26%	-7.48%	-15.66%	-14.24%	-12.52%	-9.57%		
2021/12/31	-9.54%	-6.82%	-12.14%	-6.98%	-14.83%	-13.73%	-6.76%	-14.64%	3.47%	-3.57%	-5.16%	-10.57%	-2.16%	-1.94%		
2022/7/29	3.57%	2.42%	-1.74%	-0.80%	-0.06%	3.06%	2.80%	-2.71%	-6.84%	-1.04%	-4.24%	-4.35%	-3.99%			

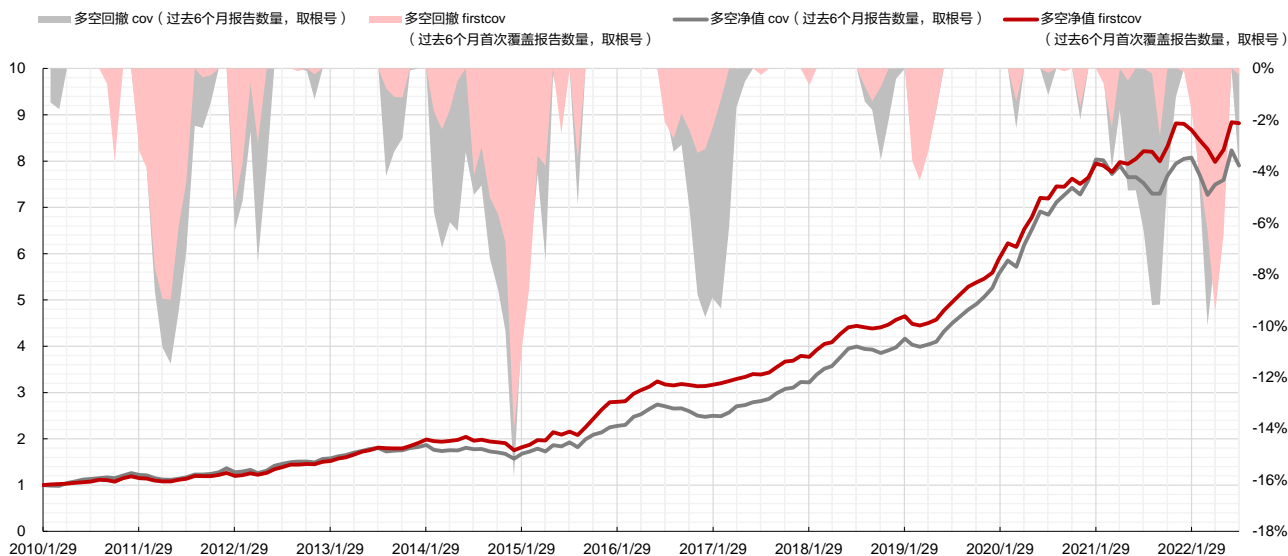
数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

有关分析师的申明，见本报告最后部分。其他重要信息披露见分析师申明之后部分，或请与您的投资代表联系。并请阅读本证券研究报告最后一页的免责申明。

（3）因子时间序列表现

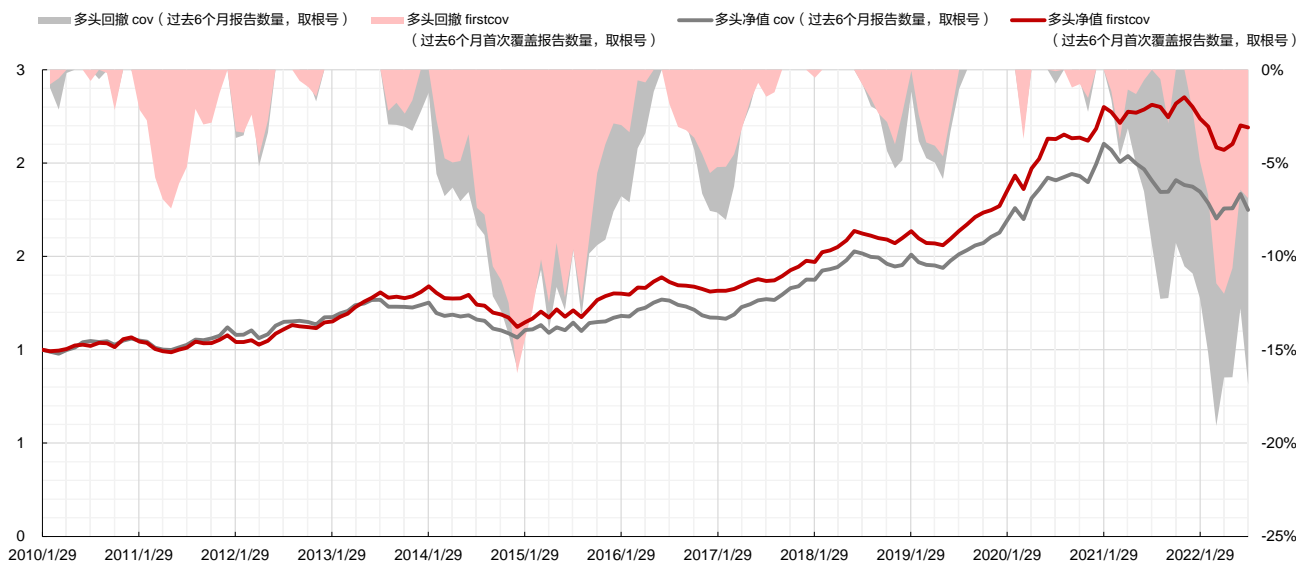
在中证全指中 firstcov 因子不管是多空组合还是多头组合，都明显优于 cov 因子。多空组合年化收益均提升 1%，多头组合收益提升 2%。组合稳定性、最大回撤也有明显降低。2021 年以来 firstcov 因子表现优势明显，2021 年单年多空组合收益 15%，多头组合收益 5.32%，远高于 cov 因子的 6%和-6%。

图 41: cov、firstcov 因子多空组合净值&回撤（中性化，中证全指）



数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

图 42: cov、firstcov 因子多头组合净值&回撤（中性化，中证全指）

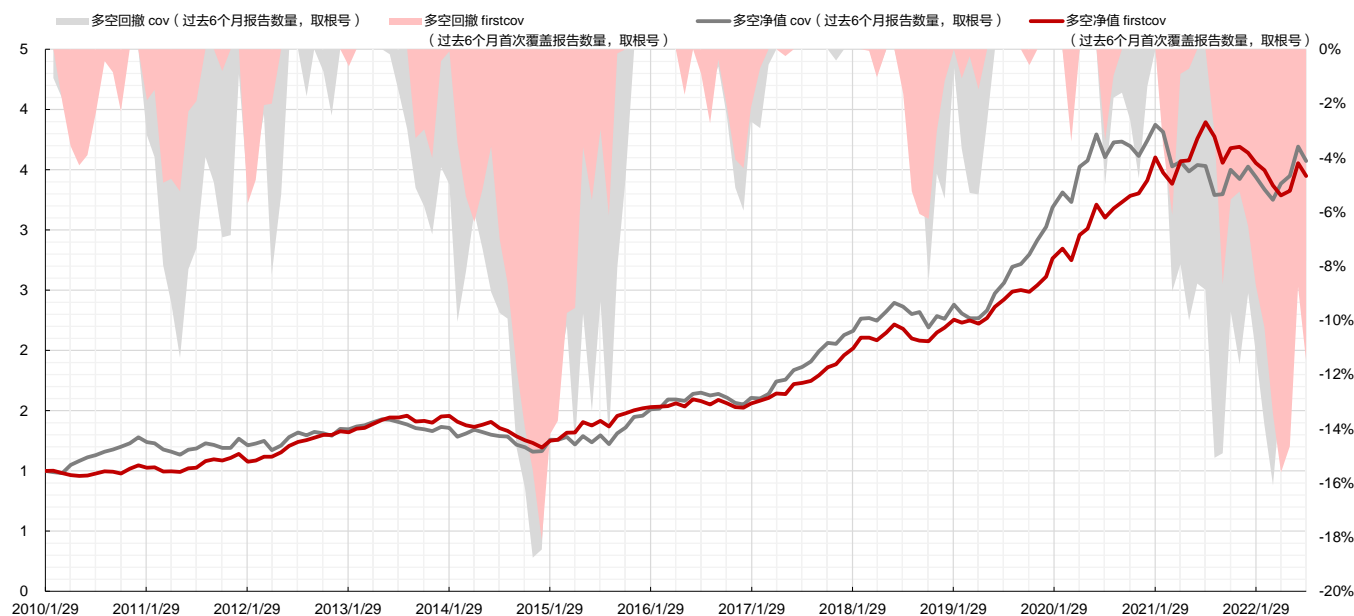


数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

有关分析师的申明，见本报告最后部分。其他重要信息披露见分析师申明之后部分，或请与您的投资代表联系。并请阅读本证券研究报告最后一页的免责申明。

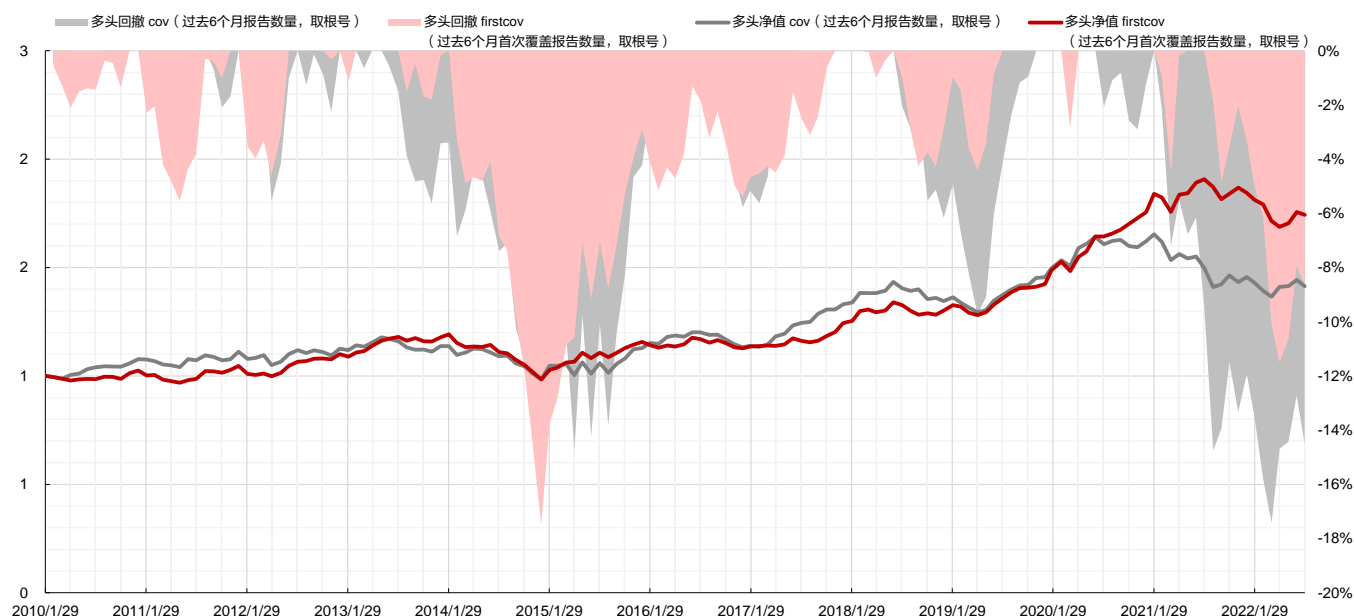
在中证 800 中 firstcov 因子多空组合稳定性略优于 cov 因子，整体差异不大，但多头组合自 2020 年开始优势明显。多头组合年化收益相比 cov 因子提升近 2%。

图 43: cov、firstcov 因子多空组合净值&回撤（中性化，中证 800）



数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

图 44: cov、firstcov 因子多头组合净值&回撤（中性化，中证 800）



数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

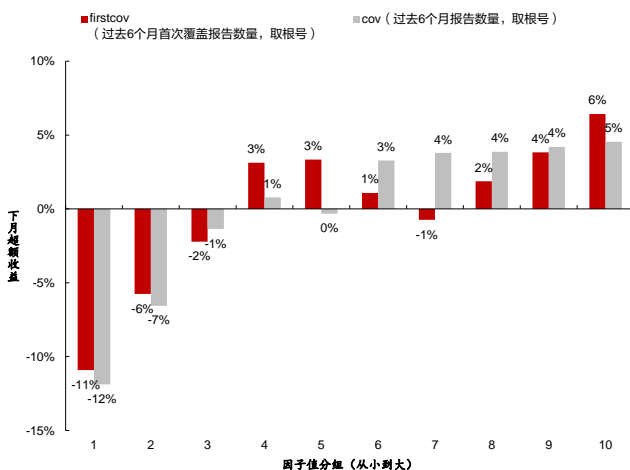
(4) 因子分组收益

在中证全指和中证 800 股票池中，firstcov 因子的多头端收益均高于 cov 因子。

在中证全指中，firstcov 因子多头端单调性较好，因子值最大的一组收益最明显，多头端年化收益 6%。而 cov 因子值最大的四组收益基本相当，年化收益均为 4% 左右，多头端单调性较差。

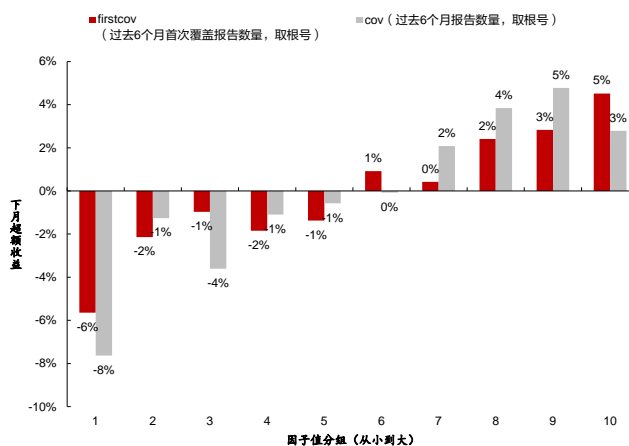
在中证 800 成分内，两个因子的分组差距更加明显。cov 因子值最大的一组并不是收益最明显的一组，因子值最大一组的年化收益仅 3%，而因子值最小一组的年化收益为-8%。firstcov 因子仍然保持较好的单调性，因子值最大一组的年化收益最高，达到 5%，多头端收益与空头端基本相当。

图 45: cov、firstcov 因子分组年化收益（中性化，中证全指，按因子值大小从低到高等分 10 组）



数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

图 46: cov、firstcov 因子分组年化收益（中性化，中证 800 内，按因子值大小从低到高等分 10 组）



数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

(5) 因子相关性

从因子原始值间的两两相关系数来看，cov 和 firstcov 因子间存在 78% 相关性，和其他常见的大类因子相关性都不高。与盈利、分析师、公司治理类因子存在 30% 左右的正相关性，与非流动性、投机类因子负相关。

图 47: cov、firstcov 因子与常见大类因子的相关性

	cov6	firstcov6	value_factor0	profit_factor0	growth_factor0	operation_factor0	liquid_factor0	lottery_factor0	analyst_factor0	mom_factor0
cov6	100%	78%	30%	45%	13%	35%	-20%	-6%	42%	16%
firstcov6	78%	100%	17%	37%	16%	24%	-19%	-10%	38%	23%
value_factor0	30%	17%	100%	46%	0%	29%	15%	20%	18%	-12%
profit_factor0	45%	37%	46%	100%	16%	25%	-9%	-5%	38%	18%
growth_factor0	13%	16%	0%	16%	100%	1%	-8%	-12%	18%	23%
operation_factor0	35%	24%	29%	25%	1%	100%	-7%	2%	19%	-1%
liquid_factor0	-20%	-19%	15%	-9%	-8%	-7%	100%	24%	-9%	-26%
lottery_factor0	-6%	-10%	20%	-5%	-12%	2%	24%	100%	1%	-18%
analyst_factor0	42%	38%	18%	38%	18%	19%	-9%	1%	100%	17%
mom_factor0	16%	23%	-12%	18%	23%	-1%	-26%	-18%	17%	100%

数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

通过常见的截面回归方法进行正交化剔除后，可以看到：1. 两因子互相正交化后的残差因子均保留了一定程度的选股效力。2. 两因子剔除其他常见因子之后，选股效果均不显著。

图 48: cov、firstcov 因子残差选股表现

中证全指 回归法填充缺失值 行业市值中性化	firstcov6_ortho_cov6	cov6 _ortho_firstcov6	firstcov6_ortho_all	cov6 _ortho_all
IC	0.82%	2.46%	0.49%	0.35%
IC_IR	64.41%	202.84%	33.53%	20.70%
tstat	227.73%	717.16%	118.54%	73.20%
long_short_r	0.53%	0.40%	0.25%	0.32%
long_short_win	62.67%	58.00%	59.33%	60.00%
long_short_sharp	93.67%	83.33%	90.73%	72.28%
long_short_drwdown	-12.87%	-15.67%	-10.42%	-16.77%
long_short_yearly	6.23%	4.70%	2.94%	3.73%
2010/12/31	6.43%	7.83%	2.20%	4.62%
2011/12/30	-0.66%	3.54%	-1.02%	1.71%
2012/12/31	10.67%	-4.07%	5.86%	4.85%
2013/12/31	12.31%	6.69%	0.42%	1.82%
2014/12/31	-2.13%	-5.78%	-8.32%	-13.04%
2015/12/31	18.65%	11.98%	10.25%	9.03%
2016/12/30	2.14%	10.53%	2.82%	-1.89%
2017/12/29	4.44%	8.14%	8.94%	11.72%
2018/12/28	7.33%	6.87%	4.24%	1.29%
2019/12/31	3.58%	14.52%	4.63%	8.70%
2020/12/31	-1.47%	8.29%	8.20%	18.78%
2021/12/31	17.35%	-6.23%	3.15%	2.08%
2022/7/29	3.22%	-0.30%	-2.76%	0.28%

数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

六、不能被机构持仓占比解释的分析师覆盖度因子

(1) 股票池的影响

三因子均是在小票中表现更好，cov_ortho_inshold 因子的表现均优于 covrank_sub_insholdrank 因子。cov_ortho_inshold 因子的主要优势在于多空组合稳定性好，夏普比高，回撤小，多头组合收益高。除创业板指之外，在其他常见宽基指数中，cov_ortho_inshold 因子相比 cov 因子回撤都有明显降低，接近减半，多空组合夏普比均有较大提升。在中证 500 和中证 800 中因子的多空组合收益也高于 cov 因子，年化收益提升 1%以上。此外，在所有分组下因子的多头组合表现均优于 cov 因子。

图 49：不能被机构持仓占比解释的分析师覆盖度因子表现（行业市值中性化，不同宽基指数）

	中证全指			中证800			沪深300			中证500			创业板指			中证1000		
回归法填充缺失值 行业市值中性化	cov (过去6个月报告数量, 取极号)	cov_ortho_inshold	covrank_sub_insholdrank	cov (过去6个月报告数量, 取极号)	cov_ortho_inshold	covrank_sub_insholdrank	cov (过去6个月报告数量, 取极号)	cov_ortho_inshold	covrank_sub_insholdrank	cov (过去6个月报告数量, 取极号)	cov_ortho_inshold	covrank_sub_insholdrank	cov (过去6个月报告数量, 取极号)	cov_ortho_inshold	covrank_sub_insholdrank	cov (过去6个月报告数量, 取极号)	cov_ortho_inshold	covrank_sub_insholdrank
IC	4.41%	3.51%	2.35%	3.44%	2.86%	2.30%	3.28%	2.60%	1.45%	3.17%	3.07%	3.17%	5.63%	3.02%	3.28%	5.12%	3.92%	2.98%
IC_IR	1.63	2.03	1.40	1.11	1.42	1.18	0.95	1.09	0.62	1.33	1.54	1.58	1.57	0.91	1.08	1.71	1.86	1.53
tstat	5.77	7.19	4.98	3.92	5.04	4.20	3.36	3.88	2.18	4.72	5.47	5.59	5.44	3.17	3.74	6.08	6.58	5.41
long_short_r	1.45%	1.25%	1.05%	0.92%	0.95%	0.80%	0.79%	0.67%	0.45%	0.75%	0.83%	0.63%	1.62%	1.27%	1.00%	1.77%	1.50%	0.95%
long_short_win	68.21%	72.19%	70.86%	58.28%	67.55%	64.90%	59.60%	59.60%	59.60%	64.24%	67.55%	62.91%	59.72%	63.19%	59.72%	72.19%	70.20%	68.21%
long_short_sharp	1.53	2.15	1.79	0.97	1.35	1.20	0.88	1.03	0.64	0.93	1.39	1.10	0.97	0.79	0.59	1.67	1.95	1.32
long_short_drdown	-15.90%	-6.30%	-9.16%	-18.76%	-11.79%	-18.27%	-25.27%	-16.91%	-23.01%	-23.72%	-12.96%	-14.63%	-26.36%	-38.15%	-36.38%	-15.95%	-12.41%	-9.24%
long_short_yearly	17.86%	15.74%	13.12%	10.65%	11.64%	9.74%	9.26%	8.18%	5.10%	8.60%	10.06%	13.76%	7.45%	18.62%	13.76%	22.25%	18.74%	11.74%
2010/12/31	29.88%	14.38%	16.98%	31.61%	11.61%	24.29%	3.06%	-0.57%	-1.55%	27.35%	13.51%	19.38%	4.68%	-6.70%	-7.98%	27.23%	22.10%	-2.35%
2011/12/30	8.43%	9.79%	11.13%	-0.92%	7.95%	3.74%	11.81%	11.48%	9.84%	1.12%	0.23%	0.35%	35.00%	5.05%	23.92%	3.82%	3.63%	7.59%
2012/12/31	14.80%	9.80%	7.81%	6.42%	8.11%	7.98%	3.15%	4.81%	5.04%	8.95%	3.14%	8.14%	40.77%	12.58%	-1.56%	17.61%	10.45%	3.33%
2013/12/31	16.62%	14.28%	23.36%	1.24%	4.42%	7.18%	-1.27%	-11.57%	-2.69%	0.46%	12.31%	7.71%	-1.92%	38.39%	19.40%	18.54%	19.32%	17.59%
2014/12/31	-14.06%	-3.46%	-3.49%	-14.75%	-5.67%	-9.96%	-18.44%	-1.23%	-16.46%	-18.48%	-3.76%	-10.72%	-5.82%	-22.60%	-23.48%	-2.37%	0.22%	5.17%
2015/12/31	43.37%	31.56%	30.54%	25.26%	20.13%	18.32%	18.73%	4.47%	6.59%	14.37%	19.13%	18.92%	22.15%	7.64%	2.17%	46.51%	35.26%	23.32%
2016/12/30	10.14%	13.91%	6.44%	6.37%	14.66%	6.73%	10.11%	12.20%	8.35%	9.10%	7.22%	5.52%	8.81%	-1.92%	4.20%	16.18%	14.82%	12.52%
2017/12/29	30.37%	26.57%	16.82%	37.15%	34.31%	22.74%	28.65%	32.11%	12.14%	28.79%	23.19%	15.92%	29.60%	33.49%	34.56%	34.28%	29.26%	20.34%
2018/12/28	23.13%	27.42%	22.35%	6.37%	19.69%	29.42%	8.16%	7.21%	12.93%	16.74%	21.32%	20.87%	48.48%	63.11%	78.39%	25.11%	24.68%	15.28%
2019/12/31	32.38%	22.63%	13.68%	33.71%	28.41%	14.24%	36.23%	23.80%	13.22%	19.92%	17.29%	7.30%	31.01%	17.91%	12.66%	37.77%	26.44%	22.12%
2020/12/31	44.11%	24.22%	19.08%	23.71%	16.75%	21.52%	36.48%	25.73%	16.14%	20.86%	14.06%	15.41%	22.12%	1.88%	54.35%	58.35%	42.95%	26.46%
2021/12/31	6.10%	9.90%	7.70%	-5.81%	-5.85%	-10.52%	-7.98%	-0.20%	6.01%	-5.95%	-0.70%	-3.21%	-13.88%	27.27%	-29.72%	13.18%	12.71%	5.49%
2022/7/29	-1.78%	3.25%	-2.13%	1.33%	-0.73%	-4.16%	2.12%	1.38%	0.20%	-1.36%	5.13%	-4.91%	23.41%	18.97%	1.88%	1.04%	5.21%	-4.78%
long_r	0.40%	0.42%	0.52%	0.27%	0.43%	0.37%	0.30%	0.31%	0.14%	0.34%	0.39%	0.22%	0.62%	0.64%	0.43%	0.59%	0.69%	0.44%
long_win	56.29%	59.60%	68.87%	56.95%	56.95%	62.25%	60.26%	58.28%	56.95%	58.28%	60.26%	58.28%	56.94%	56.25%	52.78%	57.62%	64.24%	66.89%
long_sharp	62.85%	81.89%	136.26%	42.85%	86.51%	94.92%	54.28%	76.09%	31.95%	70.48%	106.75%	73.86%	59.93%	64.38%	45.20%	87.70%	115.92%	103.96%
long_drdown	-19.07%	-13.13%	-6.21%	-17.42%	-16.00%	-7.71%	-17.98%	-9.47%	-11.37%	-14.29%	-10.49%	-7.94%	-20.74%	-18.52%	-21.75%	-11.64%	-11.17%	-6.85%
long_yearly	4.54%	4.91%	6.18%	2.79%	5.06%	4.31%	3.39%	3.79%	1.47%	3.91%	4.56%	2.61%	7.19%	7.24%	4.70%	6.91%	8.29%	5.36%
2010/12/31	7.30%	3.41%	8.69%	10.66%	5.23%	12.39%	-3.08%	-5.67%	-5.21%	14.02%	7.68%	10.17%	-5.36%	-8.90%	-16.36%	13.98%	13.13%	-3.42%
2011/12/30	5.67%	3.20%	8.13%	3.15%	4.17%	3.41%	8.60%	5.99%	4.64%	0.92%	0.86%	-0.01%	21.66%	-3.80%	1.75%	-0.32%	-2.92%	5.65%
2012/12/31	4.76%	3.12%	2.43%	1.25%	4.26%	4.22%	2.92%	7.10%	2.17%	1.88%	0.55%	3.41%	21.87%	14.81%	1.37%	5.52%	3.68%	0.85%
2013/12/31	5.60%	7.38%	14.71%	1.09%	1.86%	6.03%	0.49%	-3.66%	4.04%	0.64%	6.00%	0.59%	3.18%	35.58%	33.34%	7.94%	15.08%	10.88%
2014/12/31	-14.05%	-8.91%	-2.51%	-13.47%	-8.44%	-2.69%	-14.60%	-5.13%	-8.85%	-11.92%	-1.23%	-0.95%	-7.51%	-10.60%	-12.68%	-9.01%	-7.18%	0.59%
2015/12/31	9.99%	6.92%	16.64%	14.59%	15.85%	13.36%	15.14%	10.88%	10.94%	10.51%	10.17%	10.60%	6.75%	2.06%	9.76%	12.48%	10.61%	2.86%
2016/12/30	0.09%	1.82%	1.29%	0.35%	4.59%	1.27%	0.23%	2.06%	0.15%	3.07%	2.41%	1.39%	3.36%	1.67%	4.11%	3.72%	2.03%	6.15%
2017/12/29	17.31%	18.11%	7.38%	17.52%	18.28%	8.89%	8.36%	13.20%	-1.86%	14.53%	12.61%	4.23%	19.21%	27.86%	29.41%	16.61%	17.61%	12.22%
2018/12/28	5.64%	8.18%	7.40%	1.12%	9.19%	12.79%	1.86%	4.16%	5.90%	7.14%	9.92%	6.60%	10.94%	2.37%	26.17%	5.53%	4.62%	2.31%
2019/12/31	12.02%	10.41%	5.21%	8.20%	12.01%	0.04%	13.88%	9.22%	4.56%	9.19%	8.85%	1.15%	5.71%	3.28%	-5.66%	12.04%	9.48%	6.07%
2020/12/31	22.52%	20.14%	5.94%	11.39%	13.94%	1.34%	17.28%	14.70%	-0.68%	12.99%	8.13%	1.22%	6.27%	12.63%	9.31%	24.97%	33.15%	13.03%
2021/12/31	-6.03%	-2.44%	8.44%	-10.20%	-10.55%	-0.80%	-2.31%	-4.01%	4.69%	-6.95%	-5.03%	-0.82%	-9.79%	6.77%	-11.21%	0.89%	7.83%	11.78%
2022/7/29	-6.69%	-5.22%	-2.58%	-2.90%	-2.29%	-2.37%	-0.62%	0.68%	1.16%	-1.28%	-0.84%	-3.73%	12.69%	15.64%	-0.03%	-2.32%	3.54%	-1.48%
short_r	-1.05%	-0.83%	-0.53%	-0.65%	-0.52%	-0.43%	-0.48%	-0.36%	-0.31%	-0.40%	-0.44%	-0.41%	-1.00%	-0.63%	-0.57%	-1.18%	-0.80%	-0.52%
short_win	22.52%	20.53%	31.79%	38.41%	34.44%	42.38%	36.42%	41.06%	38.41%	36.42%	31.13%	33.77%	36.11%	38.89%	44.44%	19.87%	29.14%	34.44%
short_sharp	-239.21%	-221.13%	-160.74%	-141.73%	-122.05%	-78.68%	-94.29%	-85.24%	-64.91%	-102.54%	-123.73%	-102.92%	-95.97%	-55.45%	-47.79%	-224.61%	-178.19%	-111.64%
short_drdown	-79.71%	-71.98%	-58.06%	-63.86%	-56.70%	-58.51%	-55.21%	-43.92%	-43.27%	-47.15%	-49.57%	-50.64%	-78.11%	-66.11%	-67.71%	-83.58%	-70.41%	-61.12%
2010/12/31	-11.88%	-9.62%	-6.41%	-7.63%	-6.23%	-5.38%	-5.92%	-4.38%	-3.82%	-4.72%	-5.27%	-4.81%	-11.58%	-7.71%	-6.90%	-13.33%	-9.20%	-6.14%
2011/12/30	-17.98%	-9.84%	-7.32%	-16.51%	-6.20%	-10.13%	-6.04%	-5.26%	-3.91%	-10.81%	-5.44%	-7.96%	-9.75%	-3.01%	-9.87%	-11.17%	-7.73%	-1.43%
2012/12/31	-3.12%	-6.16%	-2.97%	3.54%	-3.75%	-0.81%	-3.32%	-5.24%	-5.08%	-0.61%	0.43%	-0.61%	-10.77%	-9.43%	-18.68%	-4.72%	-6.50%	-2.12%
2013/12/31	-9.50%	-6.20%	-5.30%	-5.36%	-3.70%	-3.86%	-0.63%	1.99%	-3.11%	-7.00%	-2.64%	-4.59%	-14.64%	0.41%	1.55%	-11.02%	-6.30%	-2.58%
2014/12/31	-9.71%	-6.14%	-7.20%	-0.18%	-2.54%	-1.12%	1.55%	8.68%	6.62%	-0.03%	-5.75%	-6.77%	2.59%	-3.31%	10.42%	-9.70%	-3.65%	-6.06%
2015/12/31	-0.44%	-5.70%	0.79%	1.21%	-3.02%	7.81%	4.25%	-4.20%	8.62%	7.76%	2.55%	10.78%	-2.04%	12.20%	12.07%	-7.14%	-7.51%	-5.05%
2016/12/30	-24.63%	-19.43%	-11.28%	-9.10%	-4.30%	-4.60%	-3.59%	5.86%	3.59%	-4.21%	-7.92%	-7.47%	-16.82%	-10.81%	0.48%	-25.17%	-19.41%	-17.39%
2017/12/29	-9.71%	-10.96%	-5.02%	-5.92%	-9.09%	-5.30%	-9.42%	-9.42%	-7.89%	-5.81%	-4.65%	-4.04%	-5.89%	-0.74%	-0.41%	-11.48%	-11.53%	-5.88%
2018/12/28	-10.32%	-6.86%	-8.27%	-14.85%	-12.32%	-11.51%	-16.37%	-14.79%	-12.73%	-11.41%	-8.84%	-10.23%	-9.22%	-4.73%	-4.68%	-13.62%	-9.32%	-6.97%
2019/12/31	-14.65%	-15.46%	-12.49%	-5.43%	-9.05%	-13.20%	-6.14%	-3.08%	-6.50%	-8.47%	-9.58%	-12.04%	-27.68%	-39.08%	-32.14%	-16.11%	-16.47%	-11.48%
2020/12/31	-15.89%	-10.26%	-7.79%	-19.86%	-13.11%	-13.52%	-17.29%	-12.40%	-8.42%	-9.49%	-7.51%	-6.36%	-20.68%	-13.39%	-17.96%	-19.29%	-13.73%	-13.90%
2021/12/31	-15.61%	-3.56%	-11.36%	-10.92%	-3.02%	-16.96%	-14.96%	-9.30%	-14.89%	-7.05%	-5.50%	-12.59%	-16.88%	7.38%	-32.13%	-21.95%	-7.48%	-11.55%
2022/7/29	-11.75%	-11.50%	0.61%	-5.19%	-5.53%	10.00%	5.34%	-4.09%	-1.46%	-1.40%	-5.21%	1.85%	1.03%	-18.43%	20.97%	-11.72%	-5.10%	5.57%
2022/7/29	-5.41%	-8.18%	-0.53%	-4.64%	-1.61%	1.60%	-3.27%	-0.74%	0.78%	-0.18%	-5.86%	1.08%	-9.20%	-3.46%	-2.94%	-3.78%	-1.67%	3.16%

数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

两因子均在高机构持仓占比的股票池中表现较差，但在高持仓分组中 cov_ortho_inshold 因子的优势更加明显。在 3-5 组中 cov_ortho_inshold 因子的多空组合年化收益均有所提升。此外，在所有分组下 cov_ortho_inshold 因子的多头组合表现均优于 cov 因子。

图 50：不能被机构持仓占比解释的分析师覆盖度因子表现（行业市值中性化，中证全指内不同机构持仓分组）

	0 (中证全指)		1 (低机构持仓占比)		2		3		4		5 (高机构持仓占比)	
回归法填充缺失值	cov (过去6个月报告数量, 取根号)	cov_ortho_inshold	cov (过去6个月报告数量, 取根号)	cov_ortho_inshold	cov (过去6个月报告数量, 取根号)	cov_ortho_inshold	cov (过去6个月报告数量, 取根号)	cov_ortho_inshold	cov (过去6个月报告数量, 取根号)	cov_ortho_inshold	cov (过去6个月报告数量, 取根号)	cov_ortho_inshold
行业市值中性化												
IC	4.41%	3.51%	4.74%	3.05%	3.66%	3.63%	3.39%	3.40%	3.24%	3.24%	3.06%	2.83%
IC_IR	1.63	2.03	1.93	1.37	1.64	1.63	1.43	1.44	1.32	1.39	1.19	1.51
tstat	5.77	7.19	6.86	4.85	5.83	5.80	5.08	5.11	4.69	4.93	4.23	5.35
long_short_r	1.45%	1.25%	1.59%	1.23%	1.40%	1.37%	1.57%	1.61%	1.35%	1.43%	0.80%	0.78%
long_short_win	68.21%	72.19%	70.20%	63.58%	66.23%	68.21%	69.54%	72.19%	62.91%	66.89%	58.94%	60.26%
long_short_sharp	1.53	2.15	1.59	1.30	1.51	1.52	1.74	1.77	1.44	1.56	0.75	0.95
long_short_drdown	-15.90%	-6.30%	-12.63%	-17.05%	-10.83%	-9.28%	-9.91%	-13.35%	-14.72%	-13.76%	-27.26%	-15.74%
long_short_yearly	17.86%	15.74%	19.85%	15.32%	17.01%	16.74%	19.67%	20.36%	17.18%	18.05%	9.35%	9.61%
2010/12/31	29.88%	14.38%	18.30%	0.57%	8.77%	8.31%	29.75%	27.95%	-0.07%	11.04%	1.60%	-9.61%
2011/12/30	8.43%	9.79%	11.96%	2.26%	4.54%	3.25%	14.52%	15.78%	14.30%	18.44%	0.84%	1.97%
2012/12/31	14.80%	9.80%	15.92%	17.79%	12.29%	12.90%	2.51%	3.70%	5.27%	3.22%	11.41%	12.83%
2013/12/31	16.62%	14.28%	26.90%	39.18%	27.64%	26.71%	31.66%	33.12%	12.26%	8.29%	11.76%	1.25%
2014/12/31	-14.06%	-3.46%	1.88%	5.76%	-3.26%	-1.85%	-4.52%	-8.96%	-7.22%	-9.06%	-18.34%	-4.69%
2015/12/31	32.38%	22.63%	42.05%	57.57%	52.65%	48.50%	42.52%	45.26%	40.07%	49.60%	15.46%	10.70%
2016/12/30	10.14%	13.91%	20.94%	13.73%	14.18%	14.55%	3.54%	6.27%	13.18%	15.23%	8.40%	10.44%
2017/12/29	30.37%	26.57%	21.79%	16.72%	18.66%	15.77%	29.71%	29.38%	29.62%	25.74%	20.46%	23.91%
2018/12/28	23.13%	27.42%	14.07%	13.08%	24.26%	19.81%	24.62%	23.93%	37.14%	39.35%	33.65%	29.06%
2019/12/31	32.38%	22.63%	19.33%	17.05%	21.61%	20.76%	28.25%	25.91%	39.26%	37.68%	32.72%	14.83%
2020/12/31	44.11%	24.22%	38.53%	25.69%	27.02%	26.74%	44.93%	50.32%	48.09%	44.33%	22.53%	15.41%
2021/12/31	6.10%	9.90%	21.79%	2.24%	22.43%	27.79%	10.35%	12.57%	5.77%	11.27%	-12.61%	6.65%
2022/7/29	-1.78%	3.25%	3.63%	-7.46%	-1.11%	0.29%	4.88%	6.32%	-8.32%	-11.17%	1.01%	9.63%
long_r	0.40%	0.42%	0.40%	0.43%	0.41%	0.40%	0.59%	0.65%	0.46%	0.52%	0.15%	0.27%
long_win	56.29%	59.60%	59.60%	60.26%	56.95%	57.62%	62.91%	67.55%	58.94%	58.28%	55.63%	58.94%
long_sharp	62.85%	81.89%	55.64%	65.86%	66.52%	65.26%	96.88%	106.64%	71.61%	80.77%	28.07%	51.50%
long_drdown	-19.07%	-13.13%	-14.68%	-14.95%	-11.87%	-11.77%	-9.63%	-11.98%	-17.45%	-17.84%	-18.20%	-12.17%
long_yearly	4.54%	4.91%	4.36%	4.98%	4.52%	4.44%	6.98%	7.83%	5.46%	6.08%	1.72%	3.26%
2010/12/31	7.30%	3.41%	5.94%	5.94%	7.82%	8.17%	11.91%	15.02%	-1.13%	3.70%	-0.14%	-5.41%
2011/12/30	5.67%	3.20%	3.70%	-0.41%	-4.29%	-6.40%	5.16%	5.91%	7.03%	8.66%	0.66%	0.36%
2012/12/31	4.76%	3.12%	5.47%	10.68%	4.32%	4.20%	-4.14%	-2.62%	-0.46%	0.53%	5.32%	12.57%
2013/12/31	5.60%	7.38%	18.57%	23.20%	11.62%	13.50%	12.28%	15.34%	6.68%	4.22%	4.37%	1.27%
2014/12/31	-14.05%	-8.91%	-10.69%	-4.29%	-8.30%	-7.93%	-5.58%	-8.19%	-13.43%	-12.79%	-9.10%	-5.25%
2015/12/31	9.99%	6.92%	0.60%	-1.63%	9.65%	9.56%	10.72%	9.99%	14.48%	19.93%	0.79%	5.61%
2016/12/30	0.09%	1.82%	5.89%	2.21%	-2.39%	-3.56%	-1.88%	-1.39%	4.66%	4.99%	4.00%	3.49%
2017/12/29	17.31%	18.11%	12.01%	8.40%	15.04%	12.84%	15.40%	15.79%	17.40%	15.35%	6.05%	8.97%
2018/12/28	5.64%	8.18%	3.85%	8.45%	8.81%	6.46%	9.16%	8.37%	12.60%	14.01%	5.89%	8.28%
2019/12/31	12.02%	10.41%	3.69%	5.67%	11.26%	10.90%	12.95%	13.72%	13.35%	14.04%	7.34%	1.37%
2020/12/31	22.52%	20.14%	13.05%	14.80%	14.13%	14.62%	25.20%	27.64%	25.26%	21.71%	2.81%	13.66%
2021/12/31	-6.03%	-2.44%	2.28%	-2.78%	2.52%	7.32%	5.05%	7.10%	-1.16%	1.13%	-6.12%	-7.31%
2022/7/29	-6.69%	-5.22%	-4.52%	-4.28%	-7.25%	-7.57%	-3.33%	-2.74%	-10.69%	-12.11%	-0.16%	3.93%
short_r	-1.05%	-0.83%	-1.19%	-0.80%	-1.00%	-0.97%	-0.98%	-0.96%	-0.89%	-0.91%	-0.65%	-0.51%
short_win	22.52%	20.53%	23.84%	36.42%	27.81%	27.15%	27.15%	26.49%	32.45%	31.79%	38.41%	39.07%
short_sharp	-239.21%	-221.13%	-212.20%	-137.93%	-175.86%	-175.78%	-200.80%	-196.31%	-174.55%	-176.56%	-95.28%	-91.75%
short_drdown	-79.71%	-71.98%	-84.42%	-75.55%	-78.96%	-78.29%	-77.67%	-77.07%	-75.60%	-76.36%	-67.92%	-59.49%
short_yearly	-11.88%	-9.62%	-13.60%	-9.59%	-11.31%	-11.13%	-11.20%	-11.02%	-10.58%	-10.71%	-7.90%	-6.30%
2010/12/31	-17.98%	-9.84%	-11.47%	4.84%	-1.60%	-0.75%	-14.14%	-10.38%	-1.41%	-7.07%	-2.32%	4.33%
2011/12/30	-3.12%	-6.16%	-8.08%	-3.36%	-8.78%	-9.71%	-8.70%	-9.07%	-6.76%	-8.75%	-0.80%	-2.13%
2012/12/31	-9.50%	-6.20%	-9.84%	-6.55%	-7.57%	-8.11%	-7.21%	-6.83%	-6.03%	-3.13%	-6.09%	-0.48%
2013/12/31	-9.71%	-6.14%	-7.28%	-12.35%	-12.97%	-10.73%	-15.45%	-14.18%	-5.17%	-3.90%	-7.20%	-0.19%
2014/12/31	-0.44%	-5.70%	-12.64%	-9.90%	-5.90%	-6.78%	-1.21%	0.68%	-7.11%	-4.48%	9.73%	-1.01%
2015/12/31	-24.63%	-19.43%	-31.15%	-39.28%	-29.80%	-27.54%	-23.87%	-25.79%	-19.14%	-20.90%	-15.17%	-6.22%
2016/12/30	-9.71%	-10.96%	-12.77%	-10.56%	-14.97%	-16.35%	-5.69%	-7.71%	-8.73%	-9.97%	-4.37%	-6.54%
2017/12/29	-10.32%	-6.86%	-8.52%	-7.51%	-3.35%	-2.83%	-11.47%	-10.90%	-9.77%	-8.51%	-12.56%	-12.63%
2018/12/28	-14.65%	-15.46%	-9.23%	-4.54%	-12.78%	-11.39%	-12.83%	-13.01%	-18.56%	-18.87%	-21.60%	-16.64%
2019/12/31	-15.89%	-10.26%	-13.55%	-10.20%	-9.01%	-8.64%	-12.64%	-10.43%	-19.34%	-17.87%	-20.16%	-11.89%
2020/12/31	-15.61%	-3.56%	-19.05%	-9.08%	-11.19%	-10.74%	-14.41%	-15.89%	-16.07%	-16.29%	-16.99%	-2.09%
2021/12/31	-11.75%	-11.50%	-16.29%	-5.25%	-17.07%	-16.90%	-4.96%	-5.08%	-7.23%	-9.57%	6.60%	-14.02%
2022/7/29	-5.41%	-8.18%	-8.11%	3.41%	-6.40%	-8.01%	-8.01%	-8.69%	-2.86%	-1.27%	-1.76%	-5.20%

数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

有关分析师的申明，见本报告最后部分。其他重要信息披露见分析师申明之后部分，或请与您的投资代表联系。并阅读本证券研究报告最后一页的免责声明。

在食品饮料、电力设备、周期行业中， $cov_ortho_inshold$ 因子的表现优于 cov 因子。在食品饮料行业中优势尤为突出，多空组合年化收益提升 6%，多头组合年化收益提升 3%。在电力设备和周期行业中，多空组合和多头组合的夏普比有所提高，最大回撤降低。

图 51：不能被机构持仓占比解释的分析师覆盖度因子表现（行业市值中性化，中证全指内不同行业）

中证全指 回归法填充缺失值 行业市值中性化	食品饮料		电力设备		国防军工		医药生物		家用电器		TMT 电子,计算机,通信,传媒		周期 公用事业,有色金属,钢铁,房地产,基础化工,石油石化,煤炭	
	cov (过去6个月报告数量, 取根号)	cov_ortho_inshold	cov (过去6个月报告数量, 取根号)	cov_ortho_inshold	cov (过去6个月报告数量, 取根号)	cov_ortho_inshold	cov (过去6个月报告数量, 取根号)	cov_ortho_inshold	cov (过去6个月报告数量, 取根号)	cov_ortho_inshold	cov (过去6个月报告数量, 取根号)	cov_ortho_inshold	cov (过去6个月报告数量, 取根号)	cov_ortho_inshold
IC	4.76%	4.91%	5.58%	4.31%	4.96%	4.17%	5.59%	3.56%	1.95%	0.79%	5.04%	2.93%	4.14%	3.53%
IC_IR	0.82	1.12	1.26	1.24	0.83	0.84	1.24	1.24	0.37	0.15	1.31	1.19	1.75	1.80
tstat	2.91	3.97	4.47	4.41	2.95	2.96	4.39	4.41	1.31	0.54	4.64	4.24	6.21	6.39
long_short_r	0.91%	1.28%	1.55%	1.33%	1.01%	0.51%	1.33%	0.69%	0.68%	0.08%	1.56%	0.99%	1.12%	1.02%
long_short_win	58.94%	62.91%	57.62%	62.25%	57.62%	53.64%	60.26%	62.91%	58.94%	51.66%	64.24%	62.91%	68.21%	70.20%
long_short_sharp	0.53	1.02	1.08	1.17	0.58	0.35	1.10	0.92	0.41	0.05	1.41	1.34	1.62	1.66
long_short_drwindown	-45.27%	-24.93%	-28.41%	-24.81%	-39.57%	-39.55%	-20.20%	-8.66%	-37.58%	-55.92%	-14.99%	-11.12%	-10.54%	-6.73%
long_short_yearly	8.94%	15.14%	17.45%	15.84%	9.81%	4.67%	15.30%	8.03%	6.68%	-1.10%	18.87%	12.03%	13.92%	12.70%
2010/12/31	23.84%	34.16%	29.31%	12.99%	29.52%	-35.08%	27.74%	2.95%	13.08%	-8.88%	32.83%	16.26%	5.20%	4.73%
2011/12/30	-2.97%	31.03%	-11.68%	8.85%	2.37%	8.12%	21.65%	6.33%	-19.41%	-11.81%	3.44%	2.45%	-1.09%	4.67%
2012/12/31	6.16%	42.91%	20.55%	9.57%	19.69%	26.32%	15.58%	12.48%	9.06%	1.84%	11.31%	3.27%	20.87%	15.83%
2013/12/31	29.01%	5.62%	24.19%	13.63%	9.72%	32.18%	31.54%	12.70%	3.83%	0.62%	34.56%	8.70%	13.62%	12.95%
2014/12/31	-22.52%	-5.91%	-6.33%	11.28%	-29.36%	-13.59%	-1.89%	2.78%	-7.83%	-18.62%	0.98%	-0.72%	2.70%	0.34%
2015/12/31	8.51%	-6.27%	3.23%	-3.92%	64.88%	22.19%	20.48%	1.20%	30.88%	-19.80%	53.23%	22.24%	20.25%	22.39%
2016/12/30	15.54%	15.32%	-0.14%	4.81%	3.83%	-12.21%	-5.58%	4.62%	20.11%	8.29%	7.74%	2.78%	10.99%	14.42%
2017/12/29	46.73%	41.46%	27.86%	23.83%	-1.32%	1.62%	12.89%	8.15%	44.98%	27.34%	23.64%	16.58%	30.57%	26.41%
2018/12/28	34.58%	14.38%	10.60%	17.41%	6.01%	9.95%	27.66%	18.08%	33.01%	24.05%	27.32%	22.69%	16.94%	20.93%
2019/12/31	17.41%	14.94%	43.55%	27.34%	-8.90%	-7.47%	34.86%	10.64%	9.56%	13.32%	23.13%	22.04%	23.27%	15.74%
2020/12/31	-2.53%	9.16%	87.06%	47.67%	26.36%	4.37%	33.64%	18.45%	4.81%	17.56%	34.72%	29.77%	28.38%	17.24%
2021/12/31	-4.88%	2.29%	26.86%	31.49%	36.98%	42.86%	2.42%	5.21%	-24.24%	-26.00%	7.54%	9.44%	6.15%	2.78%
2022/7/29	-11.82%	5.97%	7.36%	6.32%	0.13%	6.19%	-7.71%	0.65%	-13.22%	1.09%	-3.76%	2.59%	3.06%	4.60%
long_r	0.38%	0.58%	0.86%	0.72%	0.31%	0.20%	0.64%	0.34%	0.39%	-0.05%	0.59%	0.34%	0.34%	0.35%
long_win	56.29%	58.94%	56.29%	60.26%	50.99%	53.64%	58.28%	60.26%	58.28%	53.64%	59.60%	55.63%	56.95%	59.60%
long_sharp	37.53%	69.37%	89.74%	89.99%	30.64%	22.47%	87.52%	59.31%	34.90%	-4.51%	86.64%	62.18%	68.28%	78.00%
long_drwindown	-32.17%	-23.26%	-16.53%	-13.09%	-30.60%	-27.65%	-15.26%	-16.48%	-39.00%	-41.19%	-13.47%	-14.57%	-11.65%	-10.44%
long_yearly	3.76%	6.75%	9.62%	8.19%	2.88%	2.05%	7.21%	3.96%	3.86%	-1.72%	6.70%	3.88%	3.91%	4.17%
2010/12/31	8.85%	11.78%	26.54%	10.07%	16.26%	-18.79%	11.59%	0.80%	17.31%	2.57%	14.15%	4.95%	0.28%	1.81%
2011/12/30	4.49%	18.09%	-3.06%	3.40%	2.78%	15.28%	13.09%	0.15%	-4.69%	-10.10%	1.62%	-2.15%	-1.68%	-0.07%
2012/12/31	3.48%	17.04%	11.89%	9.96%	8.59%	15.95%	6.17%	5.57%	6.79%	-2.80%	6.47%	2.88%	5.97%	3.53%
2013/12/31	14.45%	1.73%	9.32%	6.95%	-4.00%	19.30%	11.90%	13.95%	9.07%	5.29%	18.76%	2.74%	-0.49%	3.58%
2014/12/31	-17.80%	-10.53%	-0.85%	0.54%	-21.61%	-3.00%	-1.88%	-2.36%	-9.95%	-19.19%	-6.69%	-4.31%	-4.56%	-3.51%
2015/12/31	-4.39%	-3.15%	-3.52%	2.65%	20.95%	4.34%	12.29%	0.89%	6.21%	-12.07%	16.74%	4.89%	2.56%	-0.90%
2016/12/30	0.20%	2.23%	-5.92%	-0.71%	-3.13%	-6.84%	-0.44%	5.11%	18.76%	11.13%	3.86%	-0.79%	1.14%	3.44%
2017/12/29	25.42%	24.98%	20.41%	17.97%	1.81%	-5.06%	6.84%	6.23%	36.13%	25.84%	10.25%	10.44%	15.32%	17.52%
2018/12/28	20.97%	8.36%	-2.97%	0.18%	5.10%	5.98%	12.64%	11.96%	5.26%	0.81%	8.03%	9.96%	6.61%	8.06%
2019/12/31	5.79%	11.55%	21.06%	13.17%	-6.82%	-11.56%	16.66%	4.07%	13.65%	11.73%	9.03%	10.22%	10.98%	9.15%
2020/12/31	15.79%	16.48%	46.70%	25.59%	5.45%	-0.49%	18.32%	17.57%	3.65%	8.46%	14.53%	15.84%	12.80%	11.43%
2021/12/31	-11.29%	-7.06%	13.52%	19.09%	20.25%	14.72%	-4.19%	-10.07%	-20.99%	-21.79%	2.18%	3.03%	4.28%	-0.72%
2022/7/29	-7.84%	-0.86%	6.01%	1.60%	0.82%	1.70%	-4.04%	-1.40%	-18.42%	-7.62%	-7.61%	-5.26%	-1.32%	1.16%
short_r	-0.53%	-0.70%	-0.69%	-0.61%	-0.70%	-0.31%	-0.69%	-0.35%	-0.29%	-0.13%	-0.97%	-0.65%	-0.78%	-0.67%
short_win	43.05%	36.42%	43.05%	34.44%	41.06%	40.40%	39.07%	39.07%	46.36%	44.37%	32.45%	33.77%	21.19%	23.84%
short_sharp	-53.15%	-86.78%	-91.72%	-93.82%	-64.31%	-32.00%	-114.52%	-69.25%	-31.76%	-15.51%	-175.01%	-151.93%	-259.95%	-207.27%
short_drwindown	-67.43%	-66.94%	-69.42%	-64.24%	-69.99%	-56.10%	-65.93%	-43.40%	-55.06%	-41.83%	-77.47%	-63.33%	-70.00%	-64.21%
short_yearly	-6.75%	-8.38%	-7.82%	-7.39%	-8.43%	-4.11%	-7.93%	-4.12%	-4.25%	-1.93%	-11.06%	-7.62%	-9.09%	-7.82%
2010/12/31	-14.87%	-18.02%	-5.08%	-3.66%	-12.24%	21.20%	-13.88%	-2.70%	2.26%	11.47%	-14.67%	-9.96%	-4.73%	-2.85%
2011/12/30	1.58%	-11.55%	8.78%	-5.38%	-1.32%	3.49%	-7.88%	-6.05%	14.50%	-0.40%	-2.71%	-4.79%	-0.86%	-4.75%
2012/12/31	-4.14%	-19.39%	-7.60%	0.03%	-11.26%	-9.51%	-9.40%	-6.72%	-3.19%	-5.33%	-5.57%	-0.69%	-12.67%	-10.85%
2013/12/31	-13.69%	-4.96%	-13.09%	-6.14%	-12.69%	-11.80%	-15.48%	0.54%	3.34%	4.15%	-13.03%	-5.66%	-12.58%	-8.45%
2014/12/31	5.64%	-5.51%	4.56%	-10.41%	5.27%	9.63%	-0.80%	-5.40%	-3.54%	-0.88%	-8.46%	-3.82%	-7.17%	-3.87%
2015/12/31	-13.69%	1.83%	-7.99%	4.45%	-30.59%	-16.20%	-8.96%	-0.72%	-20.41%	3.51%	-25.76%	-15.24%	-15.57%	-19.98%
2016/12/30	-14.16%	-12.95%	-7.48%	-6.26%	-8.95%	4.86%	5.12%	0.26%	-1.62%	1.78%	-4.18%	-3.68%	-9.15%	-9.85%
2017/12/29	-15.16%	-12.09%	-6.49%	-5.35%	2.26%	-7.36%	-5.80%	-1.99%	-6.85%	-1.50%	-11.14%	-5.43%	-11.99%	-7.29%
2018/12/28	-11.05%	-6.08%	-12.75%	-15.16%	-2.39%	-4.44%	-12.28%	-5.43%	-21.87%	-19.69%	-15.78%	-10.86%	-8.97%	-10.95%
2019/12/31	-10.31%	-3.43%	-16.44%	-11.65%	1.03%	-4.62%	-14.06%	-6.26%	1.90%	-2.77%	-12.04%	-10.13%	-10.36%	-5.89%
2020/12/31	14.63%	5.31%	-22.90%	-15.73%	-18.28%	-6.21%	-12.91%	-1.13%	-5.26%	-9.21%	-15.66%	-11.18%	-12.52%	-5.09%
2021/12/31	-9.54%	-10.22%	-12.14%	-10.79%	-14.83%	-21.09%	-6.76%	-14.69%	3.47%	5.23%	-5.16%	-6.12%	-2.16%	-3.69%
2022/7/29	3.57%	-6.62%	-1.74%	-4.58%	-0.06%	-4.52%	2.80%	-2.16%	-6.84%	-9.00%	-4.24%	-7.72%	-4.35%	-3.29%

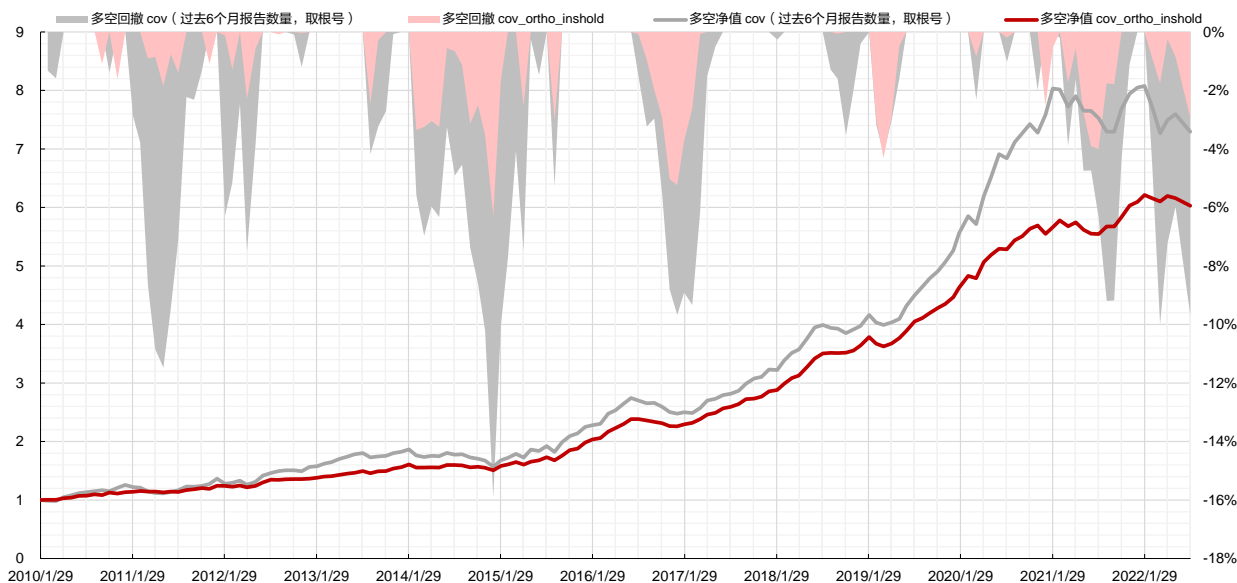
数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

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（2）因子时间序列表现

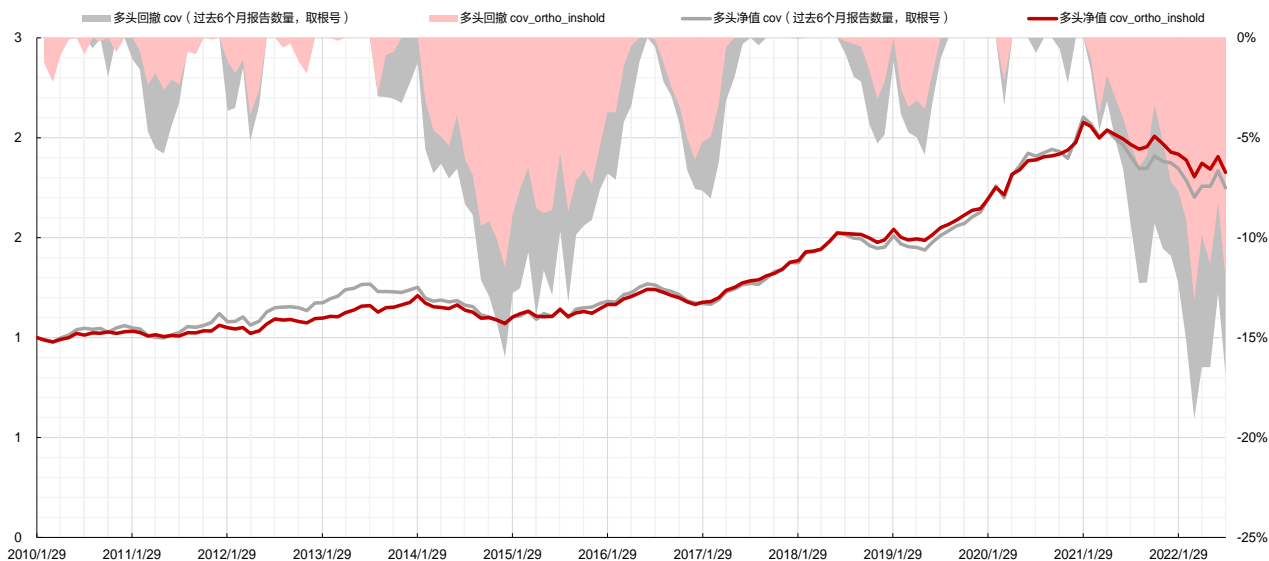
在中证全指中，**cov_ortho_inshold** 因子多空组合收益低于 **cov** 因子，但稳定性显著提高，最大回撤明显降低。2021 年开始因子多空组合表现明显占优，2021 年多空组合收益 10%，高于 **cov** 因子的 6%，2022 年前 7 个月多空组合收益 3%，高于 **cov** 因子的 -2%。多头组合收益略高于 **cov** 因子，最大回撤相比 **cov** 因子也有明显降低。

图 52: cov、cov_ortho_inshold 因子多空组合净值&回撤（中性化，中证全指）



数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

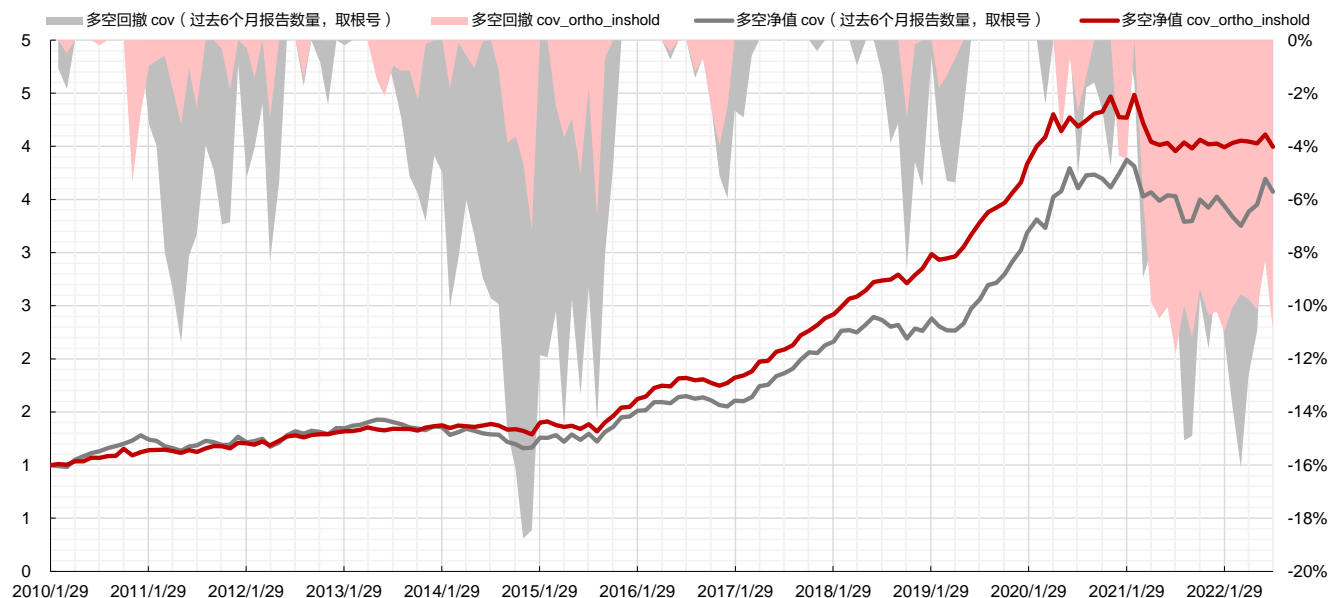
图 53: cov、cov_ortho_inshold 因子多头组合净值&回撤（中性化，中证全指）



数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

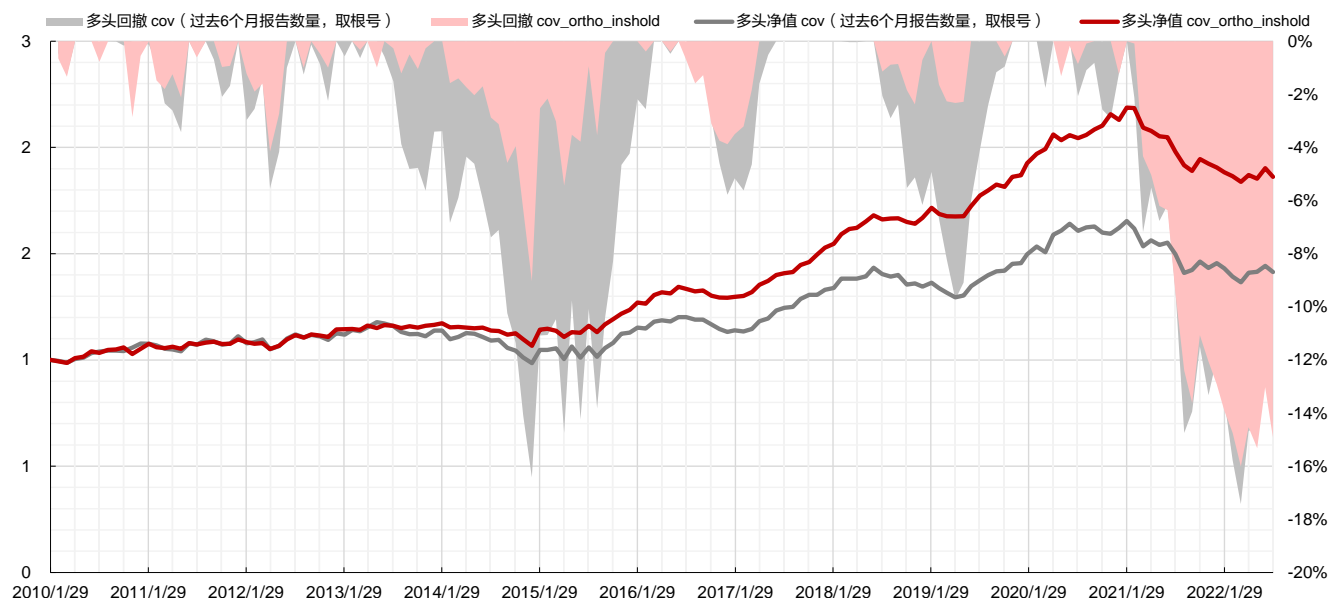
在中证 800 中 $cov_ortho_inshold$ 因子表现明显优于 cov 因子，多空组合年化收益相比 cov 因子提升 1%，多头组合年化收益提升 2%，组合稳定性也有明显提高，最大回撤显著降低。

图 54: cov 、 $cov_ortho_inshold$ 因子多空组合净值&回撤（中性化，中证 800）



数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

图 55: cov 、 $cov_ortho_inshold$ 因子多头组合净值&回撤（中性化，中证 800）



数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

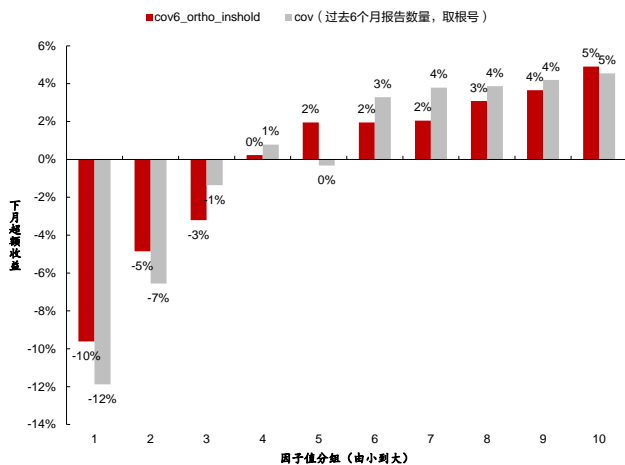
(3) 因子分组收益

在中证全指和中证 800 股票池中，cov_ortho_inshold 因子的多头端收益均高于 cov 因子。

在中证全指中，cov_ortho_inshold 因子多头端单调性较好，因子值最大的一组收益最明显，多头端年化收益 5%。而 cov 因子值最大的四组收益基本相当，年化收益均为 4%左右，多头端单调性较差。

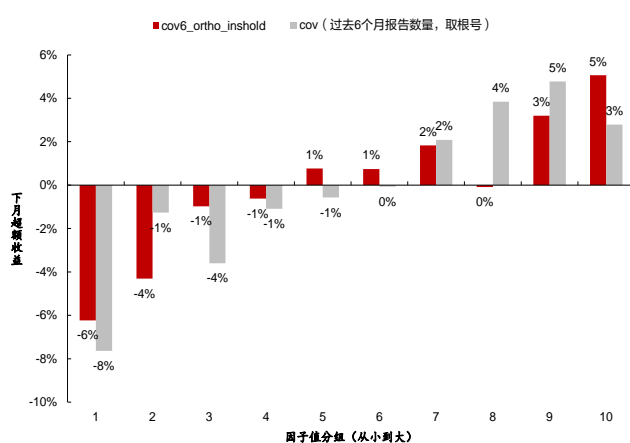
在中证 800 成分内，两个因子的分组差距更加明显。cov 因子值最大的一组并不是收益最明显的一组，因子值最大一组的年化收益仅 3%，而因子值最小一组的年化收益为-8%。cov_ortho_inshold 因子值最大一组的年化收益最高，达到 5%，多头端收益与空头端基本相当。

图 56: cov、cov_ortho_inshold 因子分组年化收益（中性化，中证全指，按因子值大小从低到高等分 10 组）



数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

图 57: cov、cov_ortho_inshold 因子分组年化收益（中性化，中证 800 内，按因子值大小从低到高等分 10 组）



数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

(4) 因子相关性

从因子原始值间的两两相关系数来看，cov 和 cov_ortho_inshold 因子间存在 82%相关性，和其他常见的大类因子相关性都不高。与盈利、分析师、估值、公司治理类因子存在 30%左右的正相关性，与非流动性、投机类因子负相关。

图 58: cov、cov_ortho_inshold 因子与常见大类因子的相关性

	cov6	cov6_ortho_inshold	value_factor0	profit_factor0	growth_factor0	operation_factor0	liquid_factor0	lottery_factor0	analyst_factor0	mom_factor0
cov6	100%	82%	30%	45%	13%	35%	-20%	-6%	42%	16%
cov6_ortho_inshold	82%	100%	29%	31%	10%	27%	-14%	-3%	29%	13%
value_factor0	30%	29%	100%	46%	0%	29%	15%	20%	18%	-12%
profit_factor0	45%	31%	46%	100%	16%	25%	-9%	-5%	38%	18%
growth_factor0	13%	10%	0%	16%	100%	1%	-8%	-12%	18%	23%
operation_factor0	35%	27%	29%	25%	1%	100%	-7%	2%	19%	-1%
liquid_factor0	-20%	-14%	15%	-9%	-8%	-7%	100%	24%	-9%	-26%
lottery_factor0	-6%	-3%	20%	-5%	-12%	2%	24%	100%	1%	-18%
analyst_factor0	42%	29%	18%	38%	18%	19%	-9%	1%	100%	17%
mom_factor0	16%	13%	-12%	18%	23%	-1%	-26%	-18%	17%	100%

数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

通过常见的截面回归方法进行正交化剔除后，可以看到：1. 两因子互相正交化后的残差因子均保留了一定程度的选股效力。2. 两因子剔除其他常见因子之后，选股效果均不显著。

图 59: cov、cov_ortho_inshold 因子残差选股表现

中证全指 回归法填充缺失值 行业市值中性化	cov_ortho_inshold_ortho_cov6	cov6_ortho_cov_ortho_inshold	cov_ortho_inshold_ortho_all	cov6_ortho_all
IC	0.59%	2.26%	0.45%	0.35%
IC_IR	45.28%	124.68%	31.44%	20.70%
tstat	160.08%	440.82%	111.16%	73.20%
long_short_r	0.30%	0.49%	0.37%	0.32%
long_short_win	60.00%	58.00%	64.67%	60.00%
long_short_sharp	52.35%	61.24%	110.88%	72.28%
long_short_drwdown	-8.09%	-14.89%	-5.69%	-16.77%
long_short_yearly	3.48%	5.37%	4.44%	3.73%
2010/12/31	-6.41%	22.52%	2.45%	4.62%
2011/12/30	3.89%	1.18%	-1.70%	1.71%
2012/12/31	1.02%	11.77%	6.14%	4.85%
2013/12/31	4.53%	15.73%	3.00%	1.82%
2014/12/31	3.45%	-14.45%	-0.97%	-13.04%
2015/12/31	0.17%	18.04%	8.76%	9.03%
2016/12/30	3.82%	-0.03%	0.40%	-1.89%
2017/12/29	3.87%	9.51%	13.96%	11.72%
2018/12/28	14.38%	-1.40%	1.09%	1.29%
2019/12/31	2.72%	10.82%	8.19%	8.70%
2020/12/31	0.38%	11.43%	6.03%	18.78%
2021/12/31	5.69%	-3.49%	6.02%	2.08%
2022/7/29	5.82%	-6.03%	3.24%	0.28%

数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

七、总结

分析师覆盖度因子反映了分析师群体对其时间精力的分配，基本面好、未来机会多、预期收益高的股票会有更多的分析师选择覆盖，因而分析师覆盖度因子可能包含不同于基本面和技术面的增量信息。

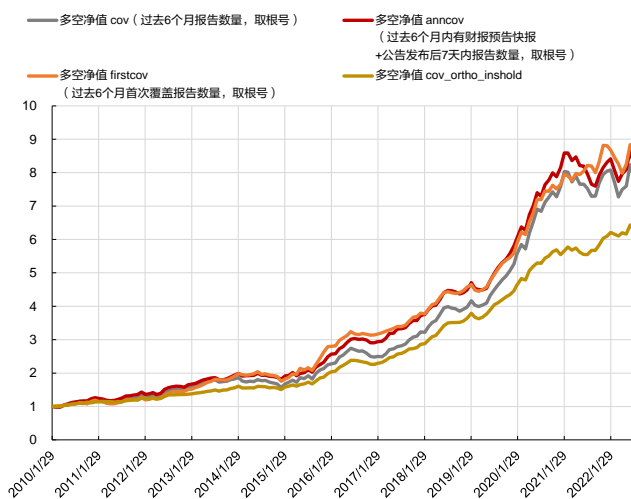
常规的分析师覆盖因子在中证全指中虽然 IC 均值较高，但稳定性较差，多头端表现不佳。21 年开始因子收益出现较大回撤，多空组合 2021 年和 2022 年单年收益为 6%和-2%。因子多头端表现更差，最近两年收益均在-6%左右。在中证 800 中因子整体表现更弱。

经过三种方案改进后的分析师覆盖因子效果均有不同程度的提高。

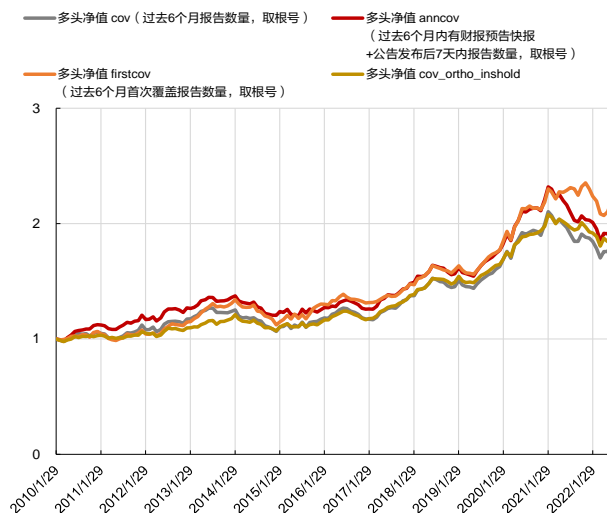
公告后分析师覆盖度因子（anncov）在大票和机构重仓股中优势更明显。在创业板指和沪深 300 中 anncov 因子的效果最好，多空组合年化收益相比 cov 因子均能提升近 2%。在中证 500 中 anncov 因子的多空组合年化收益提升 1.2%。在食品饮料、电力设备、国防军工、医药生物、周期等热门行业中均优于 cov 因子。因子多头端表现在各股票池中均占优。

分析师首次覆盖度因子（firstcov）在小票和低机构持仓组中优势更明显。在中证 500 和中证全指内中 firstcov 因子的优势最明显，多空组合年化收益能提升 1%，多头组合年化收益能提升 2%。在中证全指中因子多空组合年化收益相比 cov 因子能提升 1%，多头组合提升 2%。2021 年以来因子表现优势明显，最近两年相比 cov 因子单年收益提升 10%。在食品饮料和周期行业中表现优于 cov 因子。因子多头端表现在各股票池中均占优。

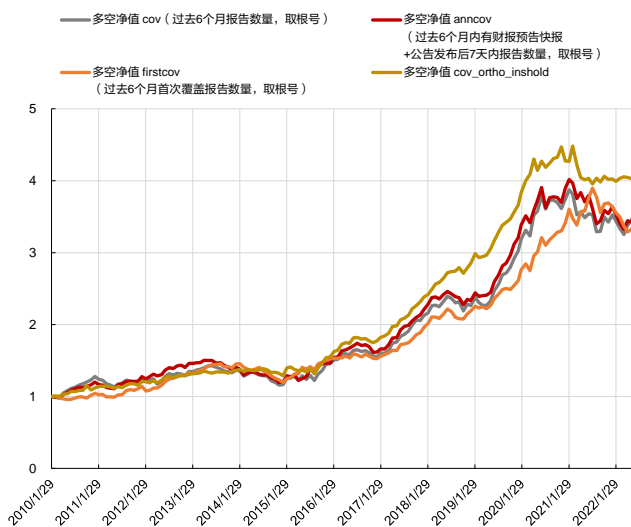
不能被机构持仓占比解释的分析师覆盖度因子（cov_ortho_inshold）的优势在于多空组合稳定性好，夏普比高，回撤小，多头组合收益高。除创业板指之外，在其他常见宽基指数中，cov_ortho_inshold 因子相比 cov 因子回撤都有明显降低，接近减半，多空组合夏普比均有较大提升。中证全指中 2021 年开始因子多空组合表现明显占优，近两年相比 cov 因子单年收益提升 5%。在高持仓分组中因子优势更加明显。在食品饮料、电力设备、周期行业中，因子表现优于 cov 因子。

图 60：分析师覆盖类因子多空组合净值（行业市值中性化，中证全指）


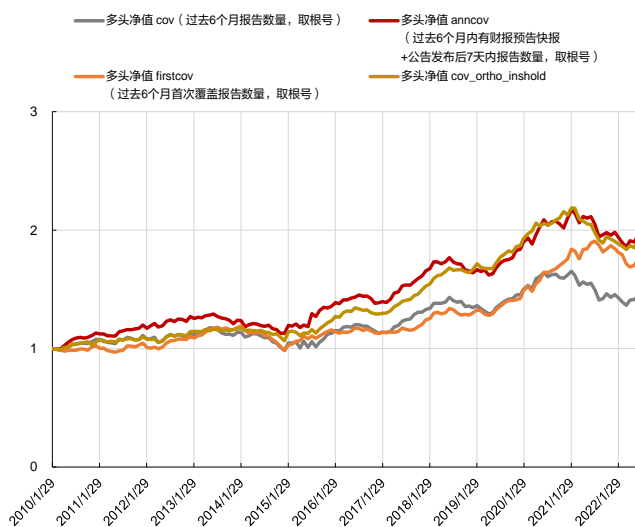
数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

图 61：分析师覆盖类因子多头组合净值（行业市值中性化，中证全指）


数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

图 62：分析师覆盖类因子多空组合净值（行业市值中性化，中证 800 成分内）


数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

图 63：分析师覆盖类因子多头组合净值（行业市值中性化，中证 800 成分内）


数据来源：东方证券研究所 & 朝阳永续 & Wind 资讯

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地址：上海市中山南路 318 号东方国际金融广场 26 楼

电话：021-63325888

传真：021-63326786

网址：www.dfzq.com.cn