

Zhonghua Liang  
zh.liang@htisec.com

Amber Zhou  
amber.lh.zhou@htisec.com

## 如何看待“库存周期”？

### 投资要点：

- **库存是“果”不是“因”。**无论从理论还是实证的角度来分析，需求变化都是库存变化的重要驱动变量。库存变化具有明显的顺周期性，并且滞后于需求与企业盈利指标的变化。因此，判断库存拐点的关键在于观察需求何时企稳回升。
- **库存周期时长：每一轮差异较大。**从历史数据来看，我国6轮库存周期的时间长度跨度较大，从27个月到47个月不等。即使本轮库存周期已经走过了40个月左右，但若据此判断即将开启补库存，可能会存在一定的误差。
- **库存水平：是否处于低位？**从过去6轮库存变化的情况来看，当工业企业产成品存货增速低于10%分位数的时候，更容易出现补库存。这是对过去经济形势下的经验总结，而当前经济面临的情况和过去或有所不同。而且，剔除价格因素或考虑到需求变化后，当前实际的库存增速可能并不低。
- **需求和库存：各行业处于什么位置？**我们可以将需求和库存结合起来，对各个行业的现状做一些了解。当前大部分上游行业仍处于主动去库阶段，中游与下游行业则较多已进入被动去库。其中汽车制造业营收改善幅度最为明显，皮革制鞋、计算机通讯等设备、化学纤维与金属制品等行业实际库存也均处于历史低位。此外，少数行业已进入主动补库阶段，如运输设备、专用设备、通用设备等，未来或有望看到景气度的持续上行。
- **风险提示：**稳增长政策不及预期。

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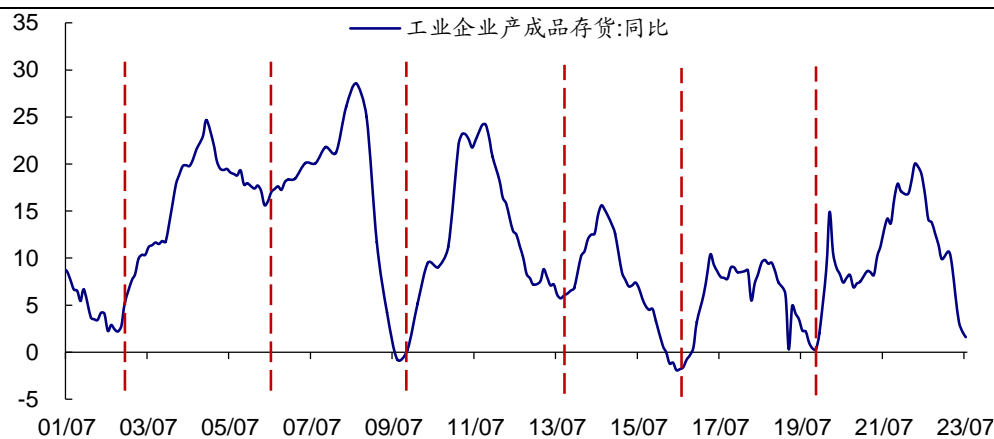
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近期，工业企业产成品存货增速回落至历史低位，引起了市场对库存周期拐点的讨论。一个关注点是，本轮库存周期已经走过了 40 个月左右，较为接近历史平均持续时长，可能即将进入新一轮补库周期；另一个关注点是本轮库存水平或已经降至低位，从历史经验来看可能开启补库。

我们认为，库存周期的时间长度具有较大的不确定性，库存的高低水平关键还是看需求，所以判断库存的拐点关键还是要看经济需求的变化。

中长期来看，我国经济具有较大的潜力和空间。从短期来看，仍然需要积极政策在需求端继续发力。

图1 当前名义库存增速回落至历史低位 (%)



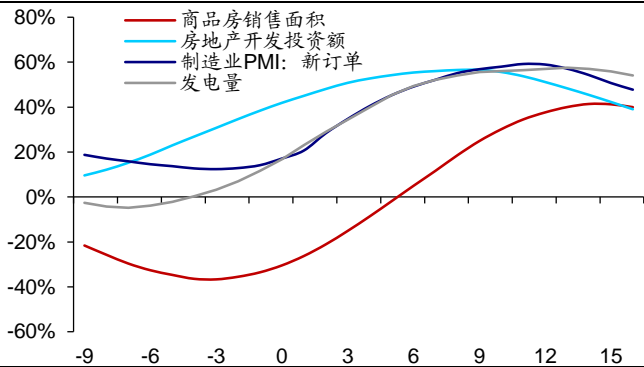
资料来源: Wind, HTI

## 1. 库存是“果”不是“因”

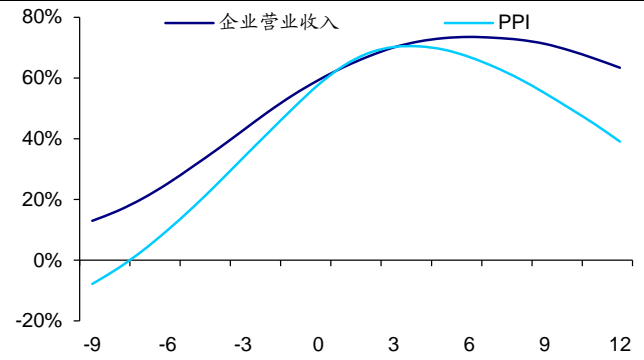
**经济需求是主导库存变化的关键变量。**当需求好转时，企业盈利改善，逐渐形成对需求持续向好的预期，从而加大生产来满足未来需求，最终体现为库存上升。而当企业认为需求走弱时，便会减少生产，库存也会相应回落。因此，库存波动具有明显的顺周期性。

**从实证的角度来分析，经济需求也是领先于库存指标的。**我们选取了需求和企业盈利两类指标，来计算这些指标在不同的领先或滞后月数时与库存的相关系数，以此判断它们和库存指标之间的领先和滞后关系。在需求指标方面，我们选取了商品房销售面积、房地产开发投资额、制造业 PMI 等；在企业盈利指标方面，我们选取了企业营业收入和 PPI。实证结果显示，需求指标确实是领先于库存变动的。

**具体来说，**需求指标中的房地产销售面积与房地产开发投资分别领先库存变动 14 个月和 10 个月左右。企业盈利指标中的 PPI 增速与企业营收增速则分别领先库存变动 3 个月和 6 个月，反映出当价格走高或者企业盈利好转时，企业对未来需求预期也会改善，从而带动库存增加。

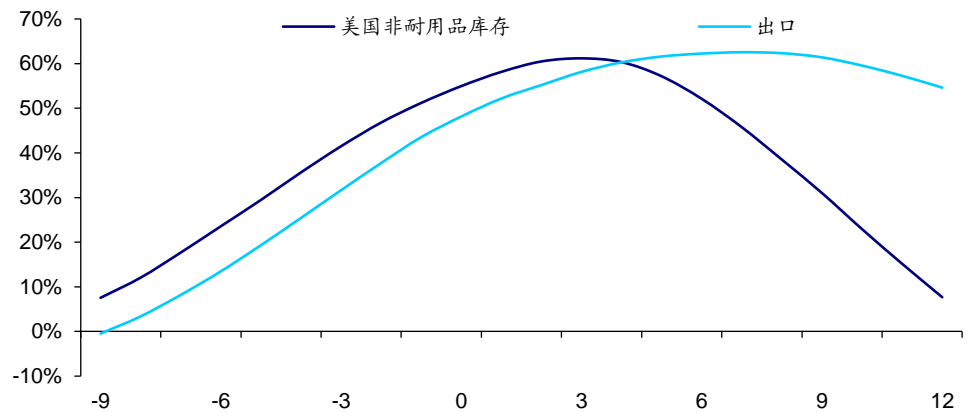
**图2 需求指标与不同领先（滞后）月份库存增速的相关系数**


资料来源: Wind, HTI。横轴表示需求指标对库存变动的领先或滞后月数, 正值表示需求指标领先库存变动 X 月; 负值表示需求指标滞后库存增速 X 月, 取相关性最高点所对应的月数来表示需求对库存的领先 (滞后) 情况, 统计区间为 2000 年 2 月-2022 年 2 月

**图3 企业经营指标与不同领先（滞后）月份库存增速相关系数**


资料来源: Wind, HTI。横轴表示企业盈利指标对库存变动的领先或滞后月数, 正值表示企业盈利指标领先库存变动 X 月; 负值表示企业盈利指标滞后库存增速 X 月, 取相关性最高点所对应的月数来表示企业盈利指标对库存的领先 (滞后) 情况, 统计区间为 2000 年 2 月-2022 年 2 月

此外, 外需指标的变化也领先于我国库存变动。我国是全球重要的生产国, 不少行业的需求比较依赖出口。例如我们发现, 美国非耐用品库存增速与我国出口增速分别领先我国库存变动 3 个月和 6 个月左右。

**图4 外需指标与不同领先（滞后）月份库存增速的相关系数**


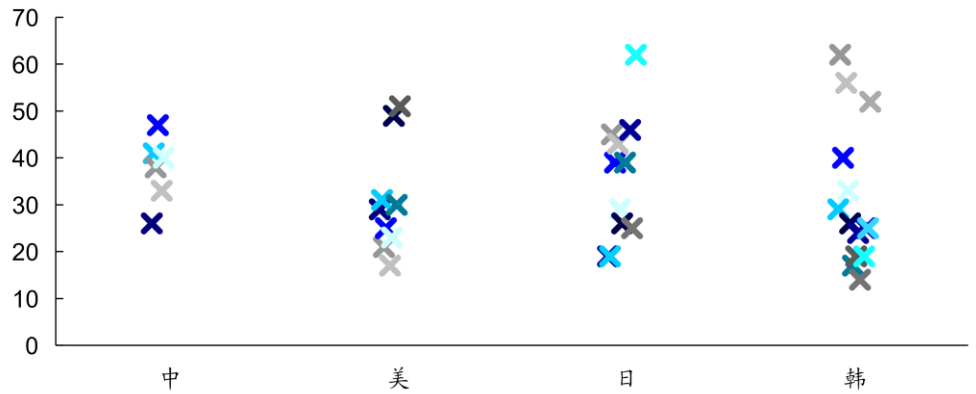
资料来源: Wind, HTI。横轴表示外需指标对库存变动的领先或滞后月数, 正值表示外需指标领先库存变动 X 月; 负值表示外需指标滞后库存增速 X 月, 取相关性最高点所对应的月数来表示外需指标对库存的领先 (滞后) 情况, 统计区间为 2000 年 2 月-2022 年 2 月

## 2. 周期时长: 每一轮周期差异较大

关于库存的一个关注点是, 通过库存周期的时间长度, 来判断是否要开始补库存。

我们总结了从 2000 年到 2019 年间的六轮库存周期的时间长度, 发现每一轮持续时间从 27 个月到 47 个月不等。周期时长均值大概是 37 个月, 但是以此来预测未来周期的时间长度可能并不准确。因为下一轮库存周期的时间长度为 37 个月的概率, 可能并没有比时间长度为 27 个月 (或 47 个月) 的概率高多少。例如, 本轮库存周期已经走过了 40 个月左右, 但据此判断即将开启补库存, 可能也会存在一定的误差。

图5 历轮库存周期持续时间（月）



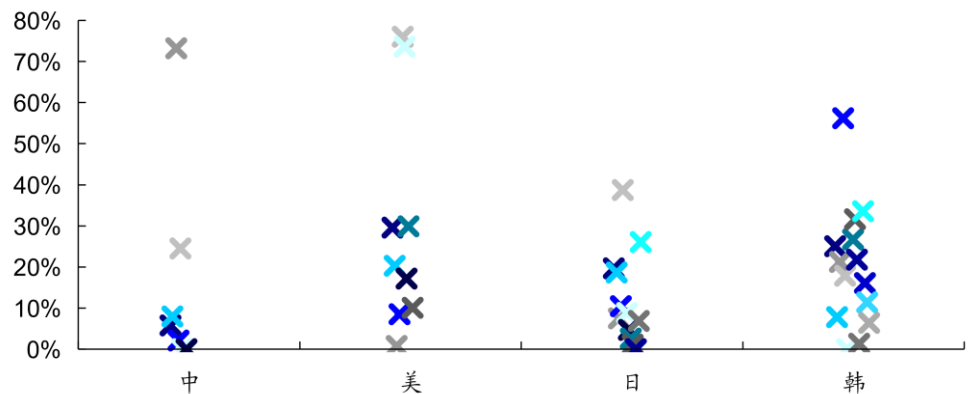
资料来源: Wind, HTI, 统计区间: 中国 (2000/05-2019/10)、美国 (1997/03-2020/09)、日本 (1979/05-2021/04)、韩国 (1981/08-2021/06)

### 3. 库存水平：是否处于低位

关于库存的另一个关注点是，库存低，就可能要补库存。但从操作层面看，判断库存是高还是低，都是比较有挑战的。

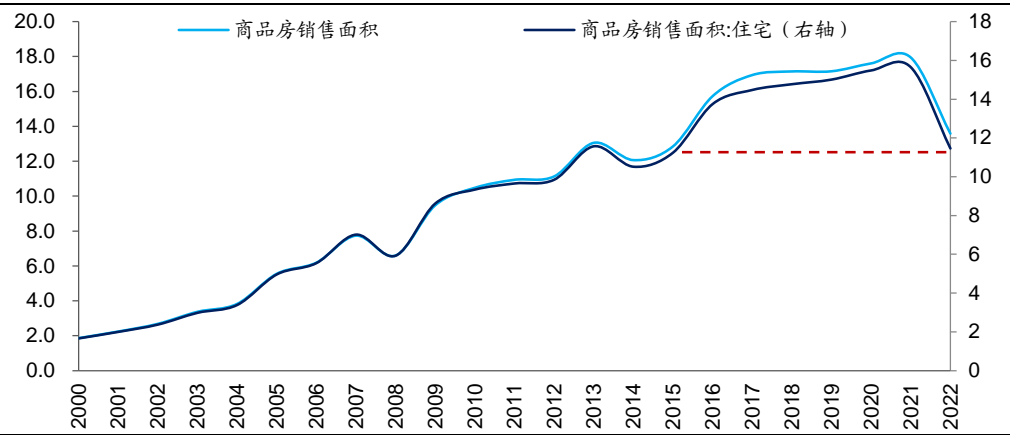
首先，从过去6轮库存周期的情况来看，当工业企业产成品存货增速低于10%分位数的时候，更容易出现补库存。但这是对过去经济形势下的经验总结，而当前经济面临的情况和过去不同。例如，2022年我国商品房销售面积已经降至2016年之前的水平，这种幅度的需求变化，需要多少库存的变化来匹配，是需要继续观察的。

图6 库存增速触底回升时所处历史分位数



资料来源: Wind, HTI, 统计区间: 中国 (2000/05-2019/10)、美国 (1997/03-2020/09)、日本 (1979/05-2021/04)、韩国 (1981/08-2021/06)

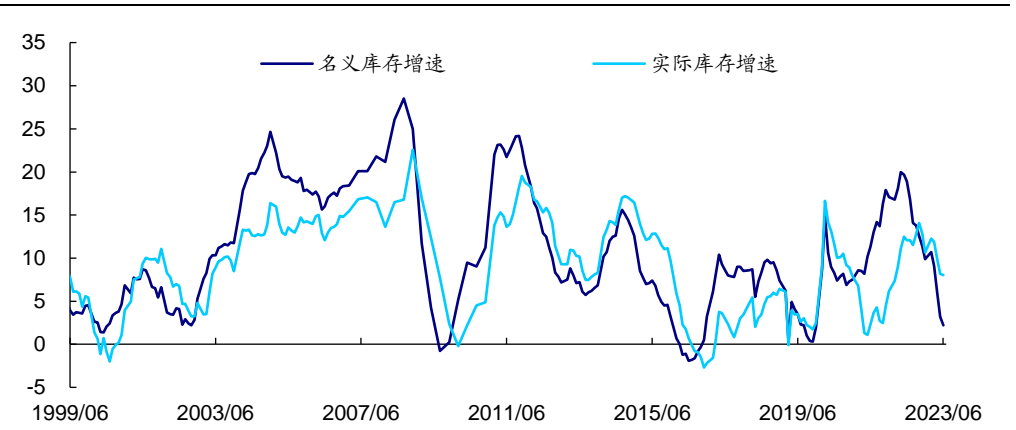
图7 我国商品房年度销售面积（亿平米）



资料来源：Wind, HTI

其次，剔除价格的因素后，实际的库存水平并不算低。截至 2023 年 7 月，名义库存增速已回落至过去 5 年的 10%分位数以下，但这一回落或很大程度受 PPI 下降影响。剔除价格因素后可以发现，当前实际库存增速并不算低，仍处于过去五年的 47%分位数。

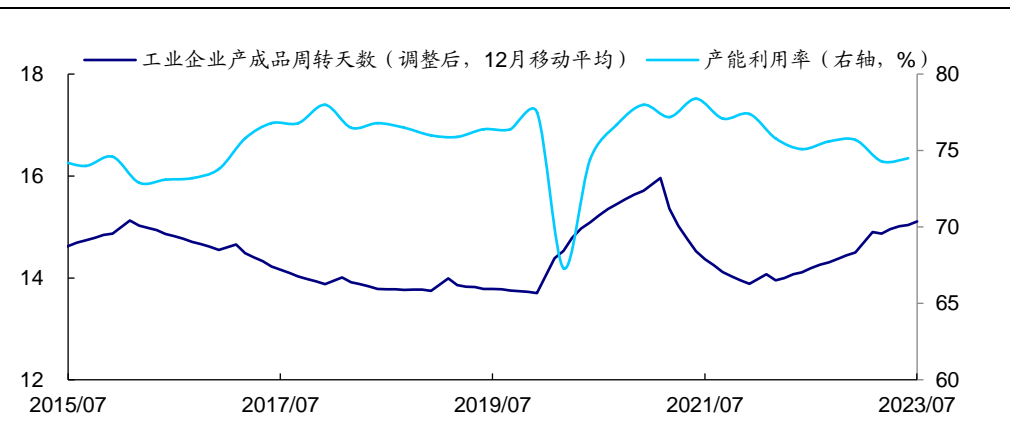
图8 剔除价格因素影响后，实际库存增速并不低（%）



资料来源：Wind, HTI

最后，判断库存的高低还需要考虑销售端的情况。2022 年之后，我国产成品周转天数呈上升趋势，截至 2023 年 6 月已处于过去五年内的 80%分位数。此外，工业企业的产能利用率仍然低于疫情前水平（2019 年 12 月为 77.5%）。和销售端对比的话，当前库存水平可能并不算太低。

图9 产成品周转天数呈上升趋势（天）



资料来源：Wind, HTI

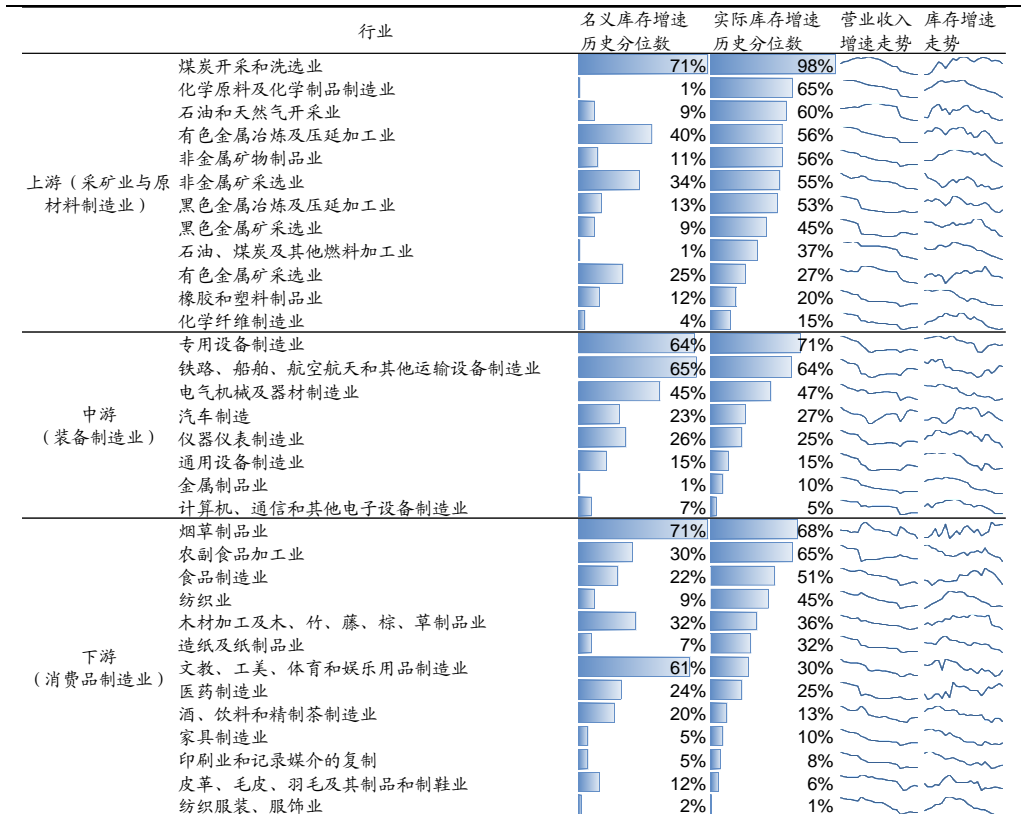


## 4. 需求和库存：各行业处于什么位置？

需求是库存的重要影响变量，我们可以将需求和库存结合起来，对各个行业的现状做一些了解。

从库存水平来看，上中下游行业存在较大分化。大多数上游行业名义库存虽然较低，但剔除价格因素后，实际库存仍处于较高历史分位数水平。相比之下，中下游的部分行业实际库存处于相对较低的历史分位数水平。如中游的计算机、通信和其他电子设备制造业、金属制品业和通用设备，下游消费品制造业中的纺织服装、皮革制鞋、印刷和家具制造业。

图10 上中下游行业库存增速情况



资料来源：Wind，HTI，统计区间 2013/07-2023/07。迷你折线图统计区间为 2021/07-2023/07

进一步的，我们引入需求指标（企业营收增速），结合需求和库存变化，将各行业的发展阶段划分为主动去库、被动去库、主动补库和被动补库四个阶段。

具体来看，主动去库阶段对应着产成品存货与营业收入的同比增速双双下滑。在这一时期，需求端往往面临下行压力，企业营收下滑，并在预期需求低迷的情况下减少生产，导致库存水平降低。

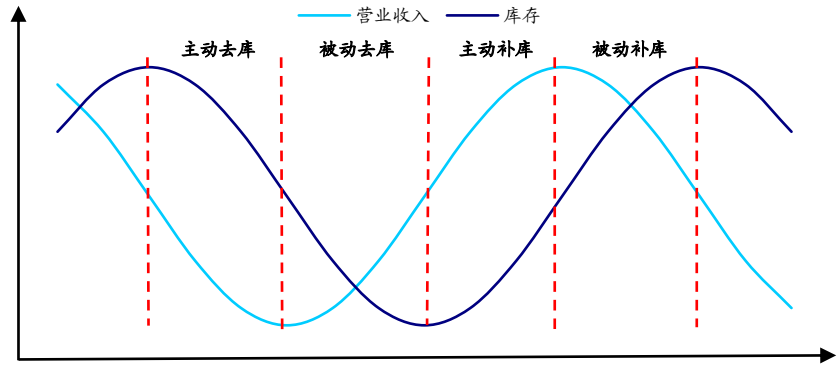
被动去库阶段表现为营业收入同比增速回升，而产成品存货增速仍在继续下滑。在这一阶段，需求端进入复苏阶段，但企业或尚未形成对未来需求持续增长的预期，生产扩张速度尚未跟上需求的回升，导致库存水平仍在回落。

主动补库阶段体现为营业收入与产成品存货增速的双双回升。在这一时期，需求端景气度明显回升，企业营收在需求持续回升的带动下继续好转，同时企业加大生产力度来满足未来的需求，带动库存水平开始回升。

被动补库阶段则对应了营业收入增速下滑和产成品存货增速的上升。在这一时期，需求端见顶回落，企业营收增速下滑，企业生产放缓幅度小于需求收缩幅度，导致库存水平仍在持续上升。



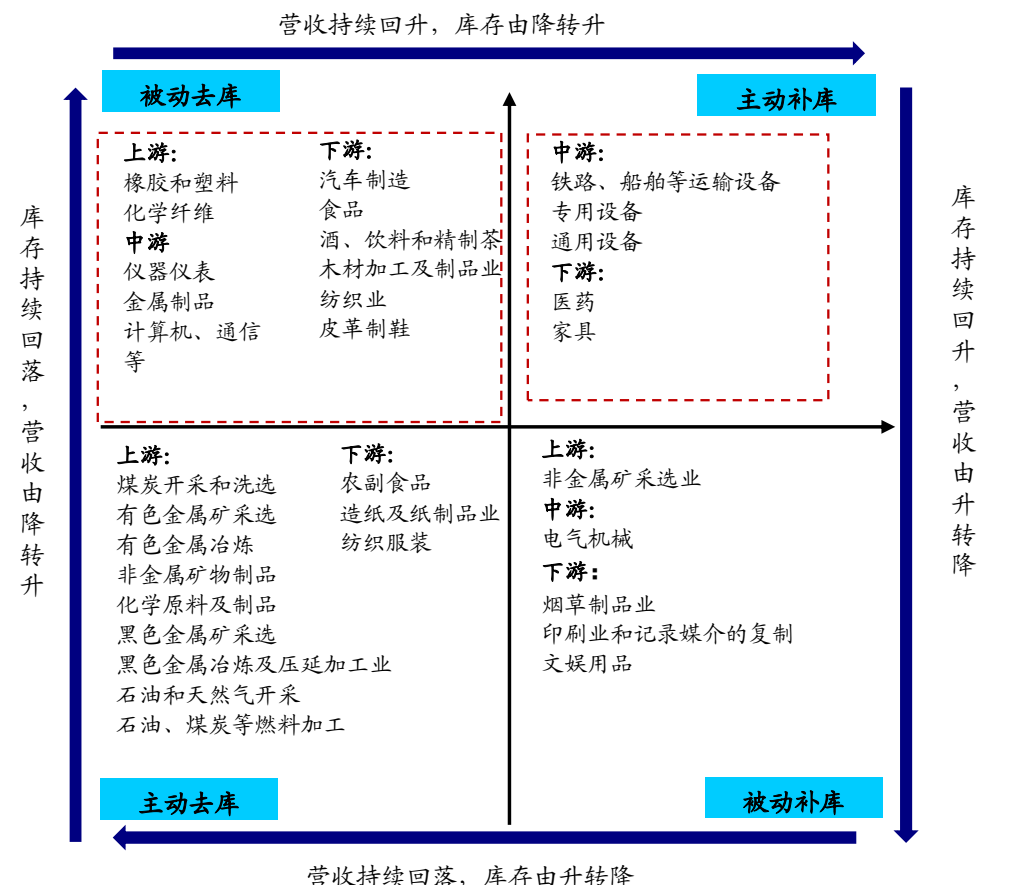
图11 库存周期划分



资料来源：HTI

结果显示，当前不同行业所处的阶段有着明显的分化。其中，大部分上游行业和少数下游行业（农副食品、造纸及纺织服装）仍处于主动去库阶段，营收与库存增速均在下降趋势，开启补库或仍需等待。

图12 按照需求和库存划分的各行业所处阶段



资料来源：Wind, HTI, 数据最新时点为 2023 年 7 月

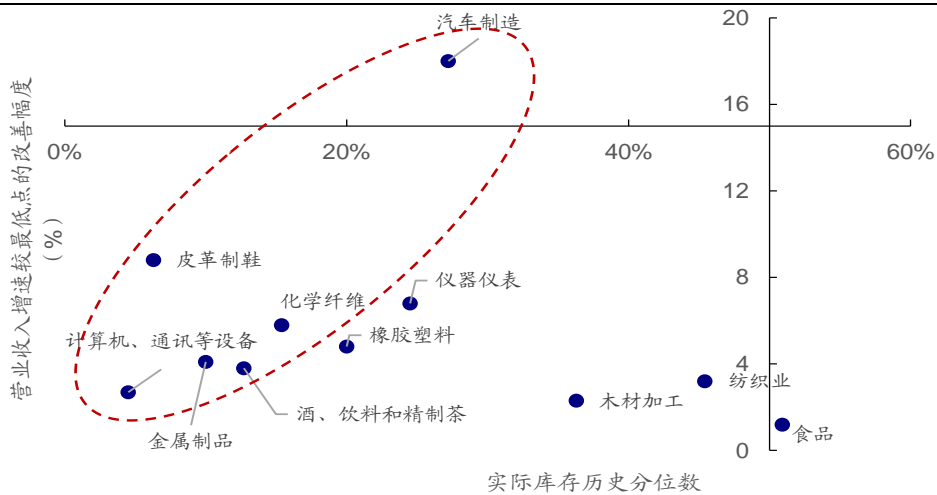
相比之下，较多中下游行业位于被动去库状态。例如中游行业中的仪器仪表、计算机和通讯设备、金属制品，以及下游行业中的汽车制造、食品、皮革制鞋等。

具体来看，被动去库的行业中汽车制造业的营收改善幅度最为明显，7月营收增速较此前最低值回升了18个百分点（2023年2月增速为-6.2%），并且实际库存水平并不算高，为历史27%分位数（统计区间为2013/07-2023/07）。此外，皮革制鞋、计算机、通讯等设备、化学纤维与金属制品等行业营收也有所改善，并且实际库存水平处于历史

20%分位数之下。

此外，部分中游与下游行业当前已经进入到主动补库阶段，营收与库存增速均出现回升迹象，如铁路、船舶等运输设备、专用设备、通用设备、医药和家具制造业，未来或有望看到景气度的持续上行。

图13 被动去库行业的营收增速恢复幅度与实际库存分位数



资料来源：Wind，HTI，数据时点为 2023 年 7 月，实际库存历史分位数统计区间为过去十年

**风险提示：**稳增长政策不及预期。

## 附录 APPENDIX

### 重要信息披露

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**中性**，未来 12-18 个月内预期相对基准指数变化不大，基准定义如下。根据 FINRA/NYSE 的评级分布规则，我们会将中性评级划入持有这一类别。

**弱于大市**，未来 12-18 个月内预期相对基准指数跌幅在 10%以上，基准定义如下

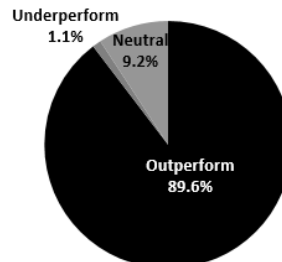
各地股票基准指数：日本 - TOPIX, 韩国 - KOSPI, 台湾 - TAIEX, 印度 - Nifty100, 美国 - SP500; 其他所有中国概念股 - MSCI China.

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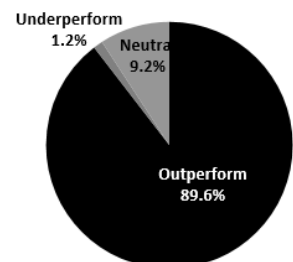
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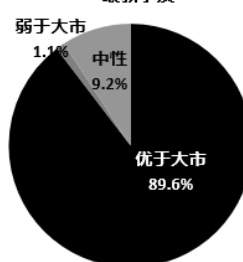
Most Recent Full Quarter



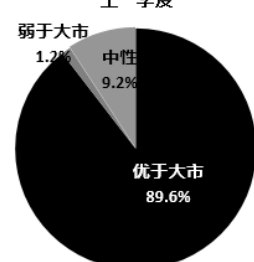
Prior Full Quarter



最新季度



上一季度



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

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

#### 截至 2023 年 6 月 30 日海通国际股票研究评级分布

	优于大市	中性 (持有)	弱于大市
海通国际股票研究覆盖率	89.6%	9.2%	1.1%
投资银行客户*	4.7%	5.6%	10.0%

\*在每个评级类别里投资银行客户所占的百分比。

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买入，未来 12-18 个月内预期相对基准指数涨幅在 10%以上，基准定义如下

中性，未来 12-18 个月内预期相对基准指数变化不大，基准定义如下。根据 FINRA/NYSE 的评级分布规则，我们会将中性评级划入持有这一类别。

卖出，未来 12-18 个月内预期相对基准指数跌幅在 10%以上，基准定义如下

各地股票基准指数：日本 – TOPIX, 韩国 – KOSPI, 台湾 – TAIEX, 印度 – Nifty100; 其他所有中国概念股 – MSCI China.

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	Outperform	Neutral (hold)	Underperform
HTI Equity Research Coverage	89.6%	9.2%	1.1%
IB clients*	4.7%	5.6%	10.0%

\*Percentage of investment banking clients in each rating category.

BUY, Neutral, and SELL in the above distribution correspond to our current ratings of Outperform, Neutral, and Underperform.

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

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

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研究机构名称: Haitong Securities India Private Limited

SEBI 研究分析师注册号: INH000002590

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

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

CIN U74140MH2011FTC224070

电话: +91 22 43156800 传真: +91 22 24216327

合规和申诉办公室联系人: Prasanna Chandwaskar ; 电话: +91 22 43156803; 电子邮箱: prasanna.chandwaskar@htisec.com

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SEBI Research Analyst Registration Number: INH000002590

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

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

CIN U74140MH2011FTC224070

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

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

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