

# 货币：如何创造、如何观测？——海通宏观分析框架

Money: How is it Created, and How to Measure? --Haitong Macro Analysis Framework

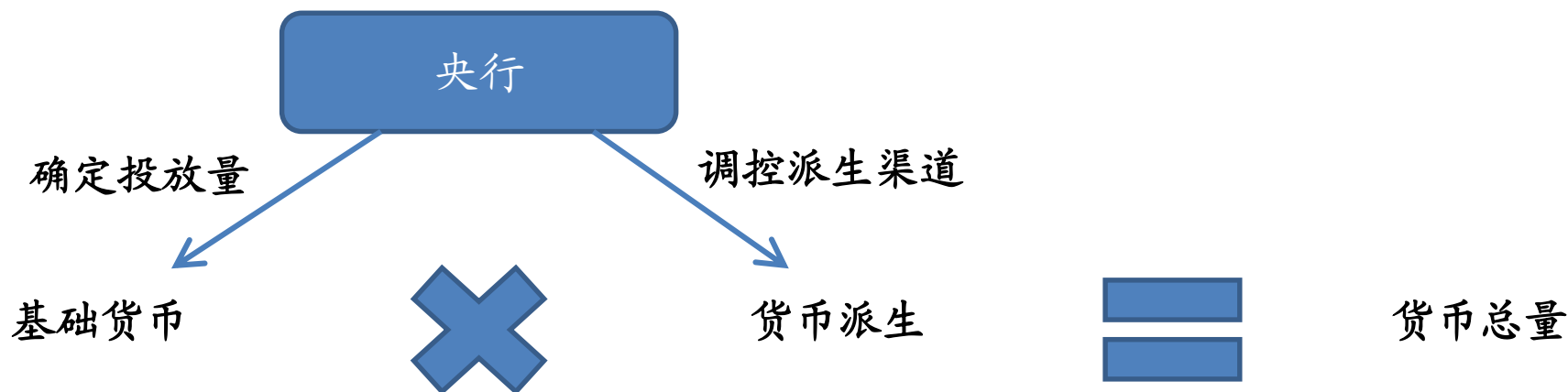
梁中华 Zhonghua Liang [zh.liang@htisec.com](mailto:zh.liang@htisec.com)

Amber Zhou [amber.lh.zhou@htisec.com](mailto:amber.lh.zhou@htisec.com)

2022年8月17日

1. 中央銀行：总量调控
2. 如何观测狭义流动性？
3. 商業銀行：信用创造
4. 如何观测广义流动性？
5. 流动性的传导与影响

- 流动性是什么，是如何创造的？流动性其实就是货币的代称，而货币的创造其实分成两个层面：
- 首先，货币是由央行提供的，央行投放的货币叫做基础货币。比如央行OMO/SLF/MLF，都是央行投放基础货币的手段。央行的地位特殊，是银行的银行，因此央行的基础货币主要投向金融机构，并不和实体经济直接打交道。这是货币派生的第一层，就是狭义流动性。
- 商业银行拿到央行提供的基础货币之后，可以用这笔钱来给实体经济发放贷款，而客户拿到钱之后又会把钱存回到商业银行，而商业银行拿到客户存款之后，先要缴纳一部分准备金给央行，剩下的又可以继续发放贷款。这样货币就会越来越多，商业银行创造的货币叫做信用货币。而介于基础货币和广义货币之间的传导效应，通常称之为货币乘数，代表了商业银行的创造货币的能力。这是货币派生的第二步，这一层影响的是广义流动性。

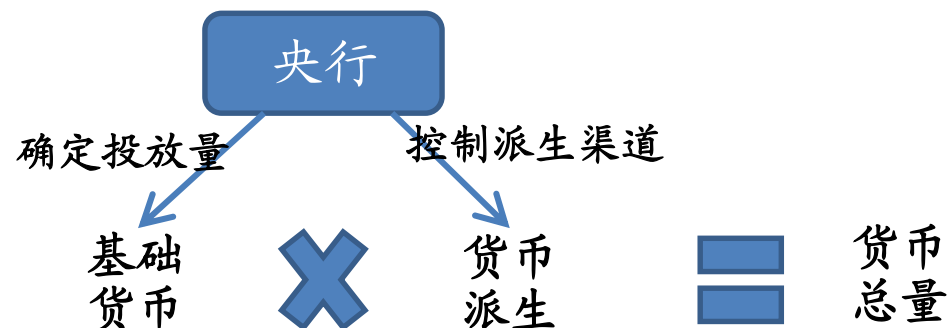


资料来源：HTI

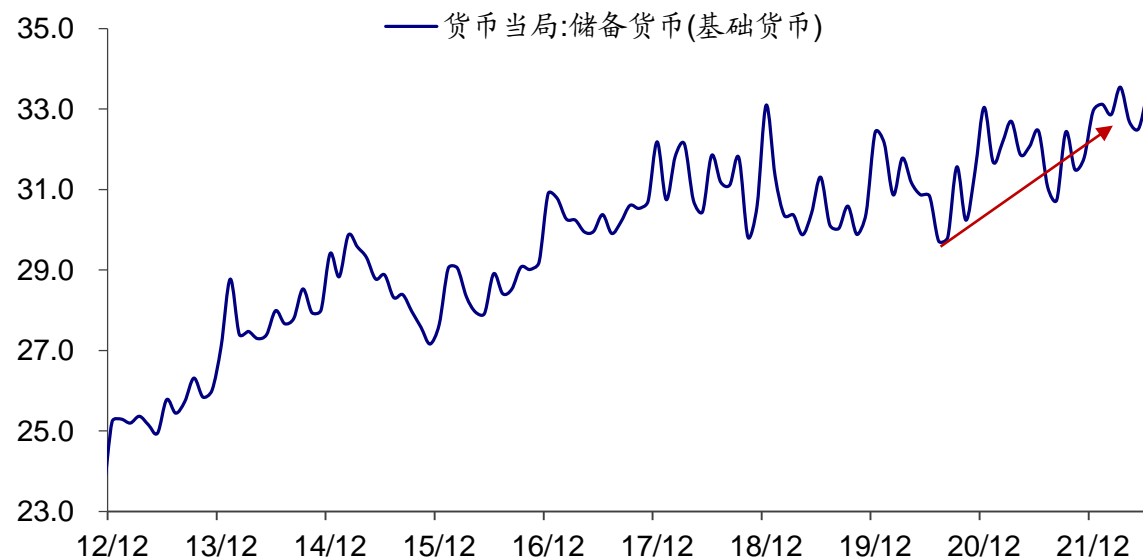
For full disclosure of risks, valuation methodologies and target price formation on all HTI rated stocks, please refer to the latest full report on our website at [equities.htisec.com](http://equities.htisec.com)

# 数量调控：基础货币和准备金率

央行控制货币总量有两大手段，一个是控制基础货币的数量，一个是控制货币乘数，最主要的是存款准备金率，还可以通过价格调节和信贷政策影响信贷的需求和供给。

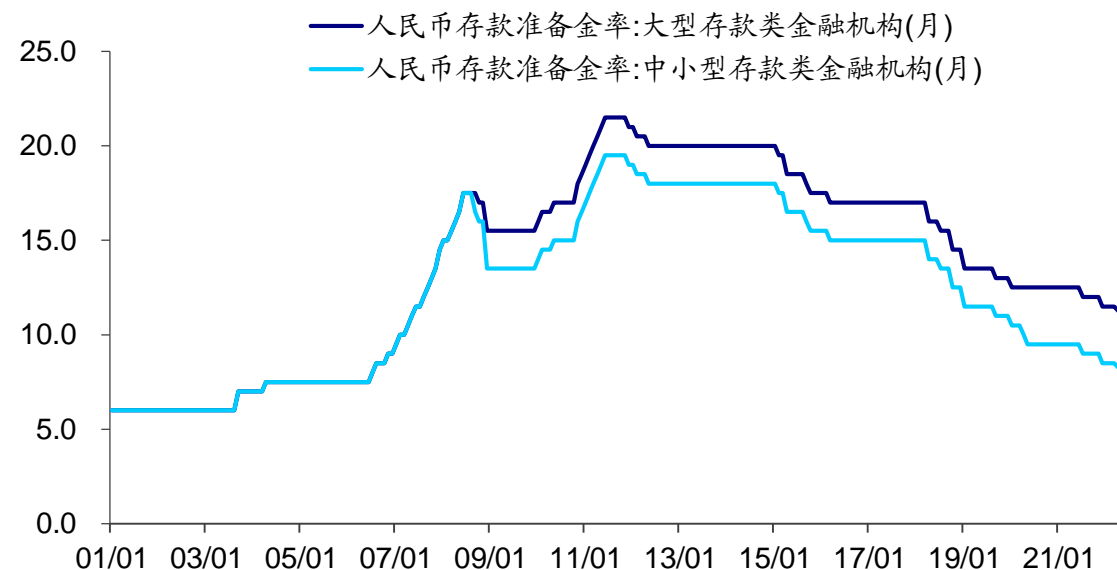


## 央行基础货币总量（万亿元）



资料来源：WIND，HTI

## 法定准备金率（%）



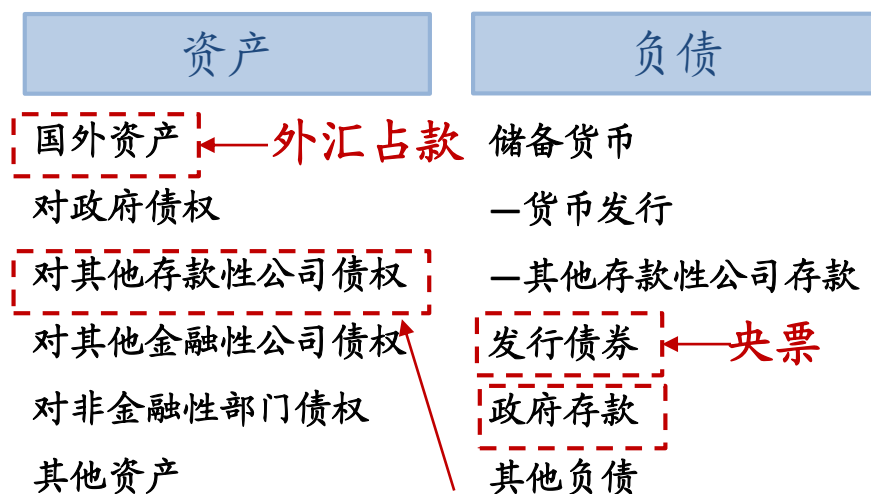
For full disclosure of risks, valuation methodologies and target price formation on all HTI rated stocks, please refer to the latest full report on our website at [equities.htisec.com](http://equities.htisec.com)

# 央行资产：外占和对存款性公司债权

基础货币在央行资产负债表的负债端，因此央行通过调整自身资产负债表，来影响基础货币供给，资产增加或负债减少都会增加基础货币。

- 在资产端，外汇占款和对存款性公司的债权是央行扩表最主要的方式，近20年来两者的变动占到央行资产端变动的接近90%。其中前者是被动的，后者是主动的。
- 不过两者在资产端的占比发生过较大转变，外汇占款占比从2013年的83%降低到2021年的54%，而同期对其他存款性公司债权占比从4%提升至33%，也就是说央行投放模式发生调整。

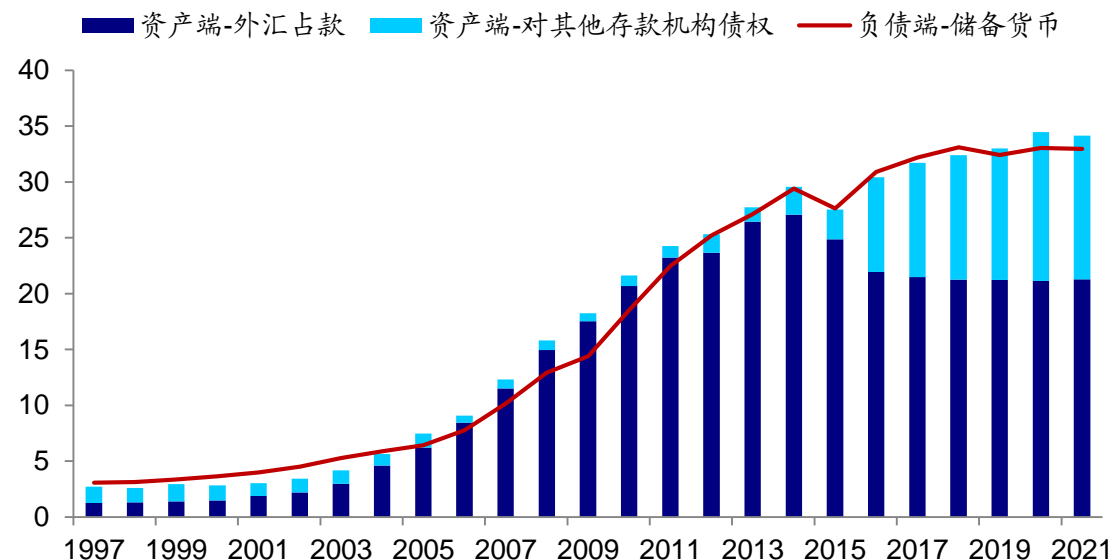
## 中央银行资产负债表



再贷款、逆回购、MLF、  
TMLF、SLF、PSL、SLO、TLF

资料来源：WIND，HTI

## 储备货币、外汇占款、对其他存款机构债权 (万亿元)

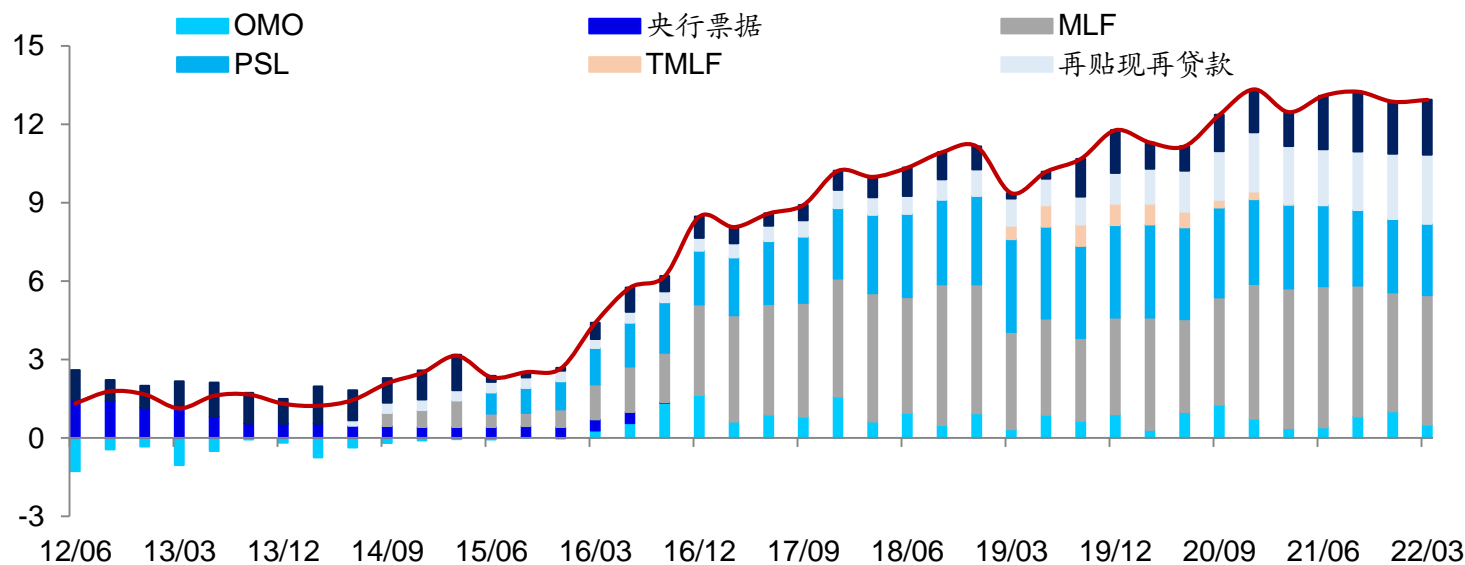


For full disclosure of risks, valuation methodologies and target price formation on all HTI rated stocks, please refer to the latest full report on our website at [equities.htisec.com](http://equities.htisec.com)

# 央行基础货币投放三阶段

- 2000年以前，再贷款是央行投放基础货币最主要的渠道，占到基础货币供应总量的70%-90%。
- 2001年-2014年，随着我国加入WTO，我国经常账户和金融账户双顺差带来大量外汇流入，强制结汇制度下企业大量结汇使得央行被动投放基础货币，外汇占款取代再贷款成为基础货币的主要贡献者。
- 2014年以后，国际收支顺差收窄、藏汇于民增加，外汇占款转而收缩。为了弥补经济增长所需要的基础货币缺口，央行创设了多种货币政策操作工具（MLF、PSL、SLF等），扩大基础货币的主动投放。从余额占比来看，MLF、PSL加上再贴现再贷款的规模占到80%左右。

央行主要投放工具和其他存款机构债权规模（万亿元）



资料来源：WIND，HTI

For full disclosure of risks, valuation methodologies and target price formation on all HTI rated stocks, please refer to the latest full report on our website at [equities.htisec.com](http://equities.htisec.com)

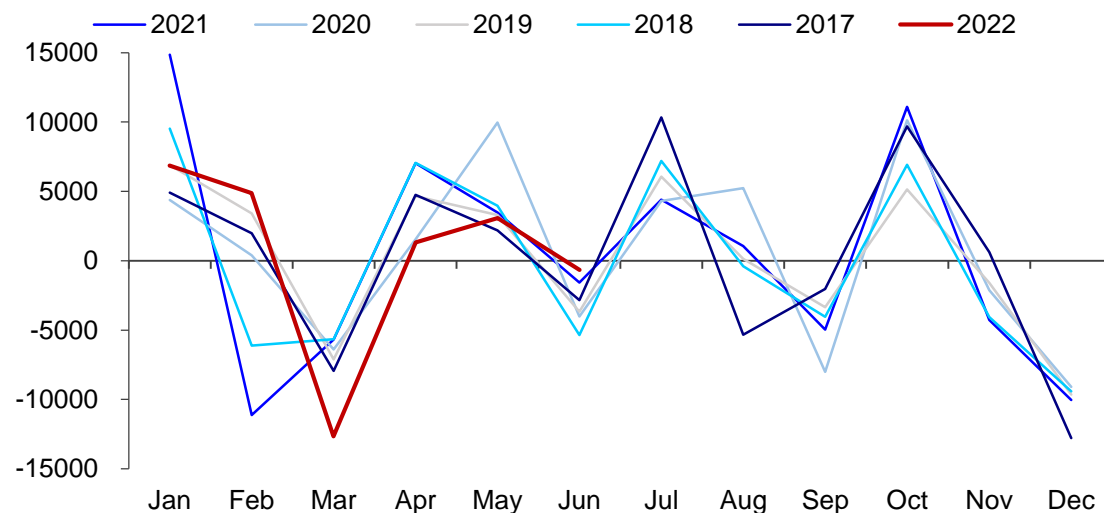


# 央行负债：央票和政府存款

负债端除了基础货币以外，最主要的科目就是央票的发行（计入债券发行）和政府存款。

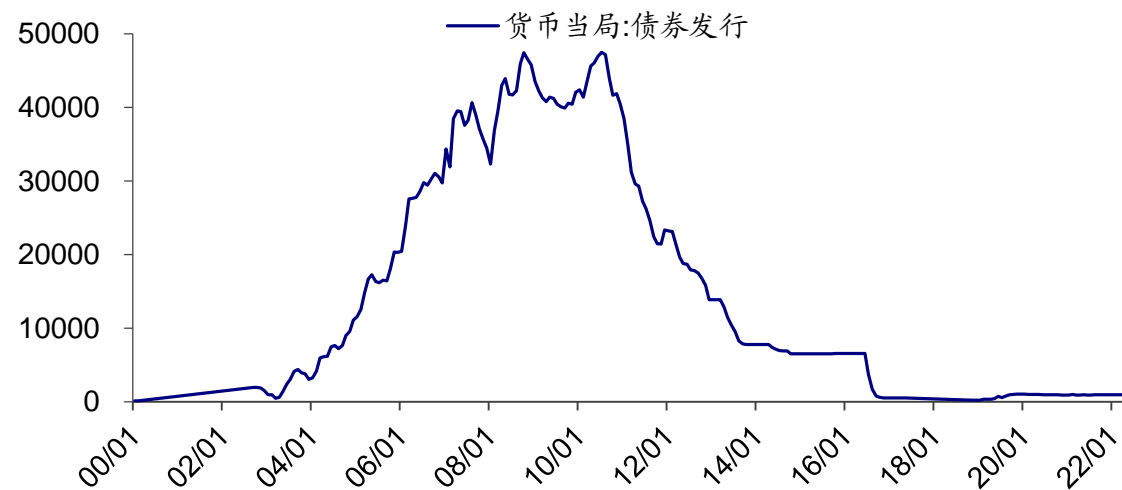
- **政府存款季节性波动。**我国财政通常年初季初收，年末季末放，均会造成资金面的波动，不过政府存款的波动造成的影响相对短期。
- **央票发行曾是回收流动性的重要方式。**由于外汇占款形式投放的基础货币属于被动投放，可能会出现投放超过实际需求的情况，因此央行需要通过必要手段来控制整体的流动性。央票发行就是央行回收部分基础货币的重要方式，到2008年时央票规模最高一度扩大至4.6万亿元。此后，随着外汇占款在2014、2015年逐步缩量，央票回笼货币的必要性大幅下降，直至2017年6月央票余额降至0。

央行口径政府存款变化（亿元）



资料来源：WIND，海通证券研究所

央票发行存量（亿元）



For full disclosure of risks, valuation methodologies and target price formation on all HTI rated stocks, please refer to the latest full report on our website at [equities.htisec.com](http://equities.htisec.com)

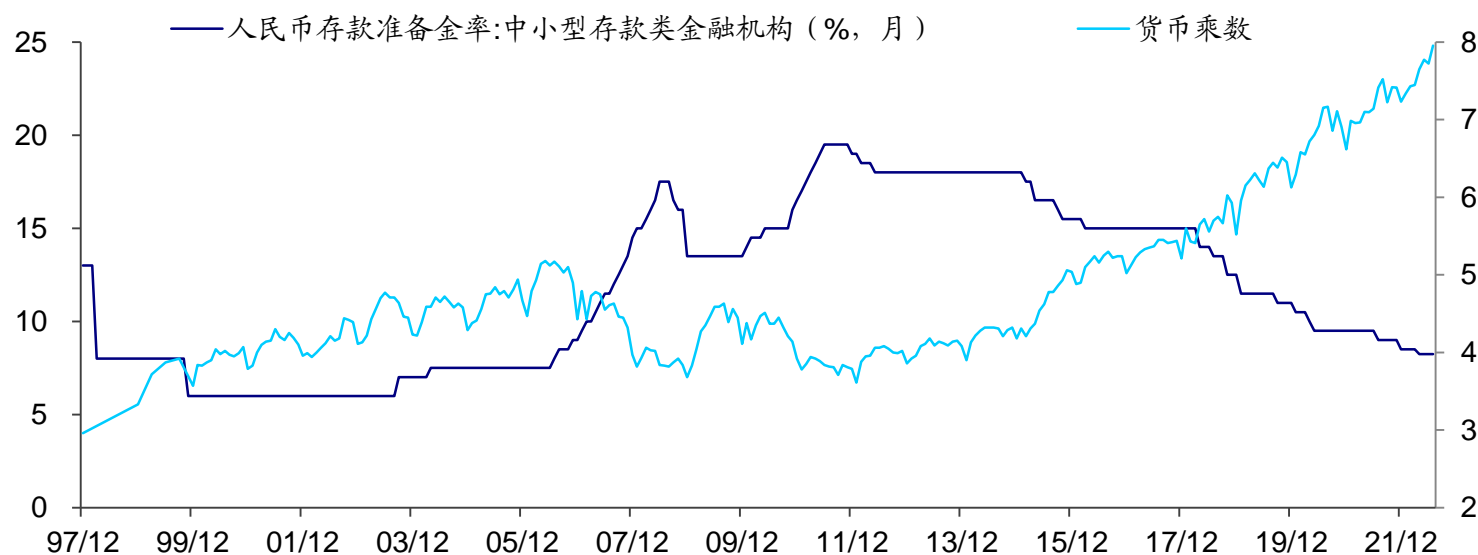
# 准备金率：影响货币乘数

央行控制货币乘数最主要的方式是调整存款准备金率。

2013年以前，准备金率整体是提高的，在外汇占款大量提供基础货币的情况下，准备金率的提高可以控制货币乘数。因此货币乘数整体也偏低，只在2008年金融危机期间有所抬升。

而13年以后，准备金率持续调降。尽管通过各种货币政策工具进行了主动投放，但2014年以后基础货币同比增速仍然慢于M2增速，这意味着基础货币投放无法满足经济增长需要的货币。所以，央行多次连续调降存款准备金率，释放之前冻结的大量基础货币，通过提高货币乘数来扩大信用创造。

## 中国货币乘数变化情况



资料来源：WIND，HTI

For full disclosure of risks, valuation methodologies and target price formation on all HTI rated stocks, please refer to the latest full report on our website at [equities.htisec.com](http://equities.htisec.com)

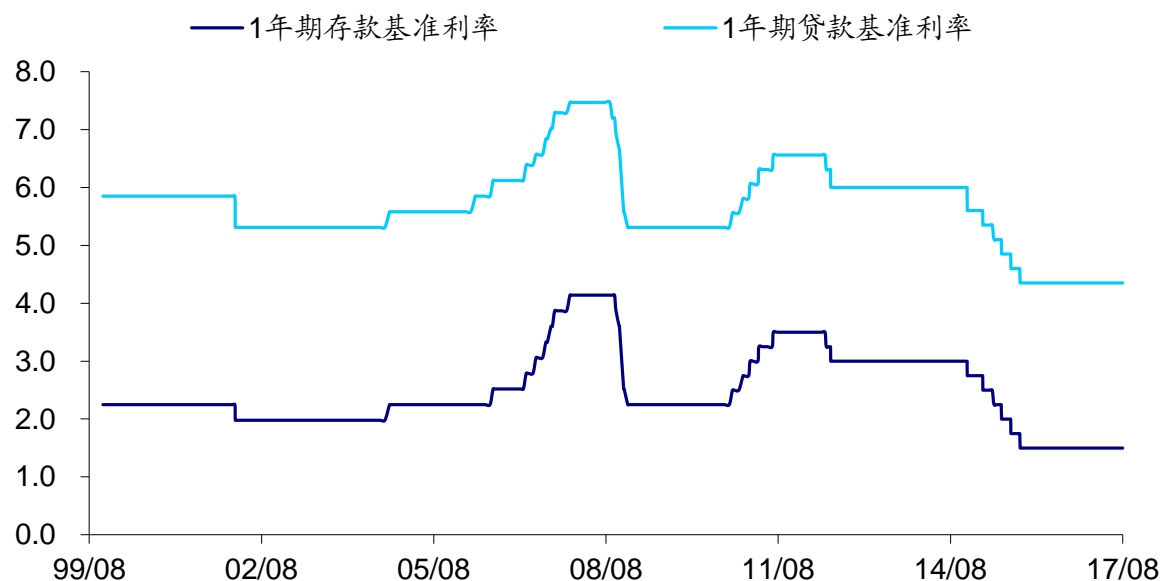


# 央行的利率政策

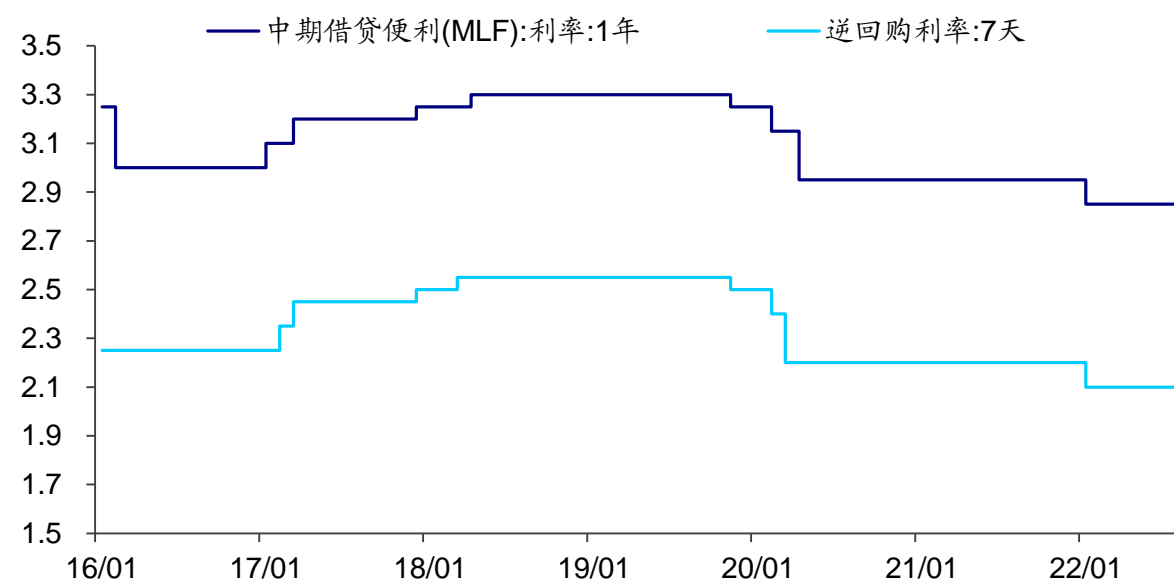
除了调控货币数量外，央行还会直接指导和影响资金价格。在2015年之前，央行通过调整存贷款基准利率进行价格调节。

但随着利率市场化的不断推进，基准利率对市场利率的指导作用逐渐减弱，“利率走廊+政策利率”的利率调控模式则逐步成型。不过在实际运作中，由于利率走廊的宽度较大，我国央行的逆回购、MLF利率实际上成为不同期限的目标政策利率。除此以外，中国央行也有准备金利率，但影响非常有限。

## 存贷款基准利率变动(%)



## 逆回购利率和MLF利率走势(%)



资料来源: WIND, HTI

For full disclosure of risks, valuation methodologies and target price formation on all HTI rated stocks, please refer to the latest full report on our website at [equities.htisec.com](http://equities.htisec.com)

# 央行价格的传导机制

要降低实体经济的融资成本，最重要的还是降低金融机构的负债端成本。因为单纯下调LPR、压降金融机构利差的空间其实有限，而且利率不断市场化的情况下，银行发放贷款的利率是基于负债端成本考虑的市场化的结果，如果负债端成本不降，即使LPR定价标准下调了，银行可以调整上浮的比例。

而要降低金融机构的负债端成本，最重要的“降息”就是降低短端资金利率。金融机构负债主要分为企业居民部门存款和来自其他金融机构的同业负债。同业负债的成本和银行间利率走势密切相关。存款利率短期不易调整，要降低金融机构负债端成本，边际上能降的就是短端资金利率，就需要下调更具指导意义的逆回购操作利率。因此，降低逆回购利率为代表的银行间资金利率才是我国最重要的“降息”。

信贷政策大致包含四方面：

一是与货币**信贷总量**扩张有关，通过政策措施影响货币乘数和货币流动性。比如，规定汽车和住房贷款的首付比例等等；

二是**限制**性的信贷政策。通过“窗口指导”或引导商业银行通过调整授信额度、调整信贷风险评级和风险溢价等方式，限制信贷资金向某些产业、行业及地区过度投放；

三是配合国家产业政策，通过贷款贴息等多种手段，引导信贷资金向国家政策需要**鼓励和扶持**的地区及行业流动，以扶持这些地区和行业的经济发展；

四是制定信贷**法律法规**，引导、规范和促进金融创新，防范信贷风险。

疫情之后，结构性政策工具运用增加，包括增加支农支小再贷款、再贴现额度，接连创设普惠小微贷款支持工具、碳减排支持工具和支持煤炭清洁高效利用专项再贷款、科技创新再贷款、普惠养老专项再贷款、交通物流专项再贷款等。在经济发展向高质量转变的过程中，结构性政策工具的运用或将更为频繁和重要。

1. 中央銀行：总量调控
2. 如何观测狭义流动性？
3. 商業銀行：信用创造
4. 如何观测广义流动性？
5. 流动性的传导与影响

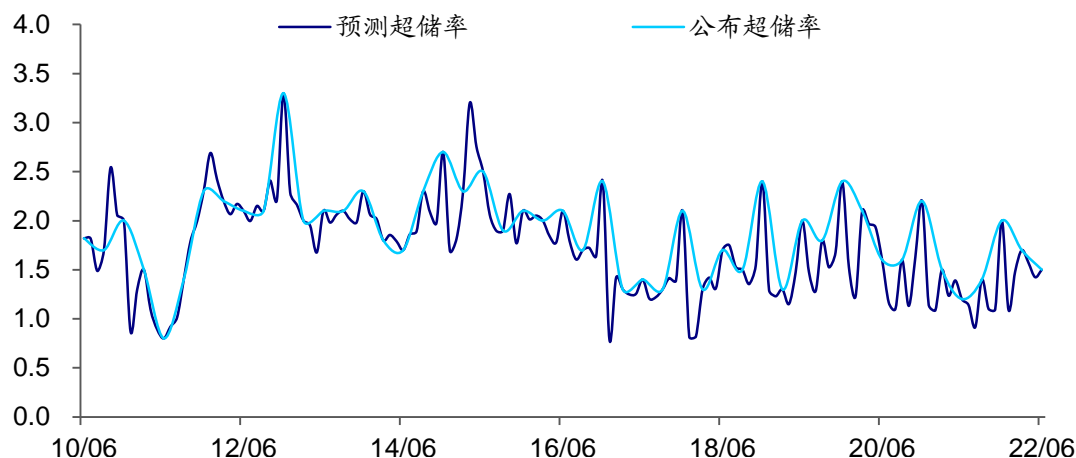
# 如何观测狭义流动性？

数量方面，超储率是核心指标。对于银行而言，其所有资金在购买资产、上缴央行准备金之后，真正剩余的部分是存放于央行的超储资产，对应的是其超额储备率。

主要三大因素影响超储率走势：一是央行公开市场操作，以及准备金率调整等；二是外汇占款；三是财政放款；前者信息每周央行都会公开，而后两者信息更新比较慢，但影响同样不可忽视。比如今年4、5月两月央行公开市场操作分别净回笼7100亿、100亿货币，而外汇占款基本保持稳定，同时4、5两月的财政净放款分别减少1300亿和3000亿，是4、5两月超储率下降的主因。6月央行公开市场净投放4000亿，再加上财政存款下降600多亿，所以6月超储率回升。

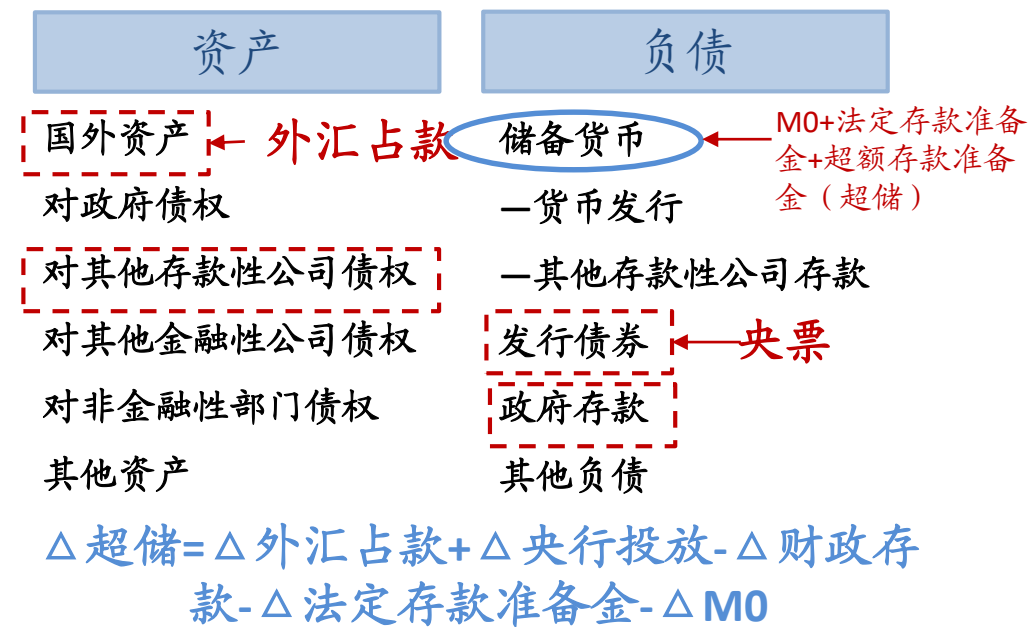
不过超储率季节性特征明显，而且是一个滞后指标。

## 超储率变化（%）



资料来源：WIND，HTI测算

For full disclosure of risks, valuation methodologies and target price formation on all HTI rated stocks, please refer to the latest full report on our website at [equities.htisec.com](http://equities.htisec.com)

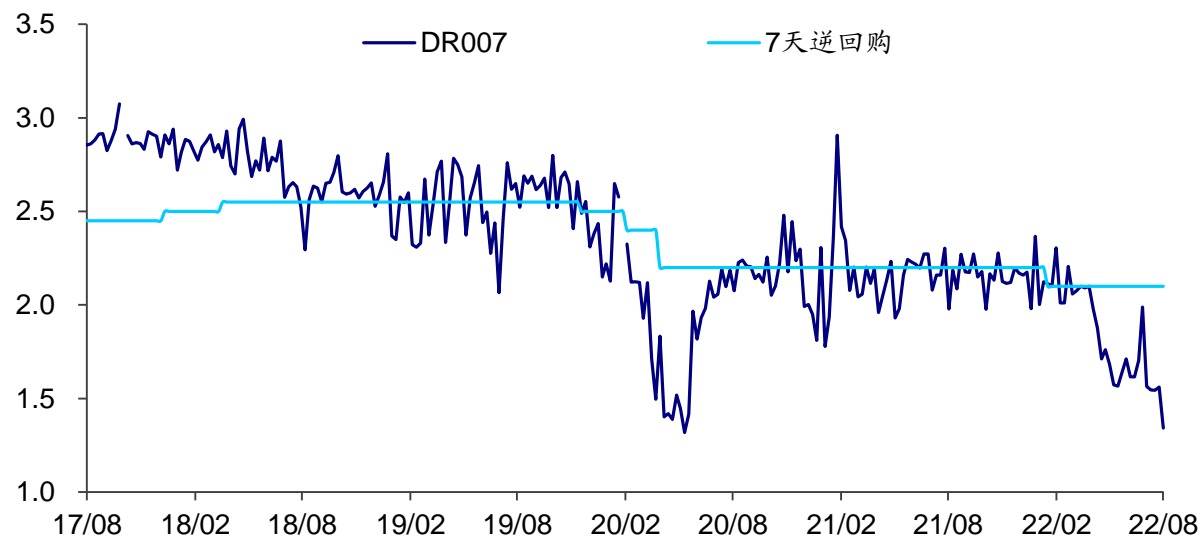


# 如何观测狭义流动性？

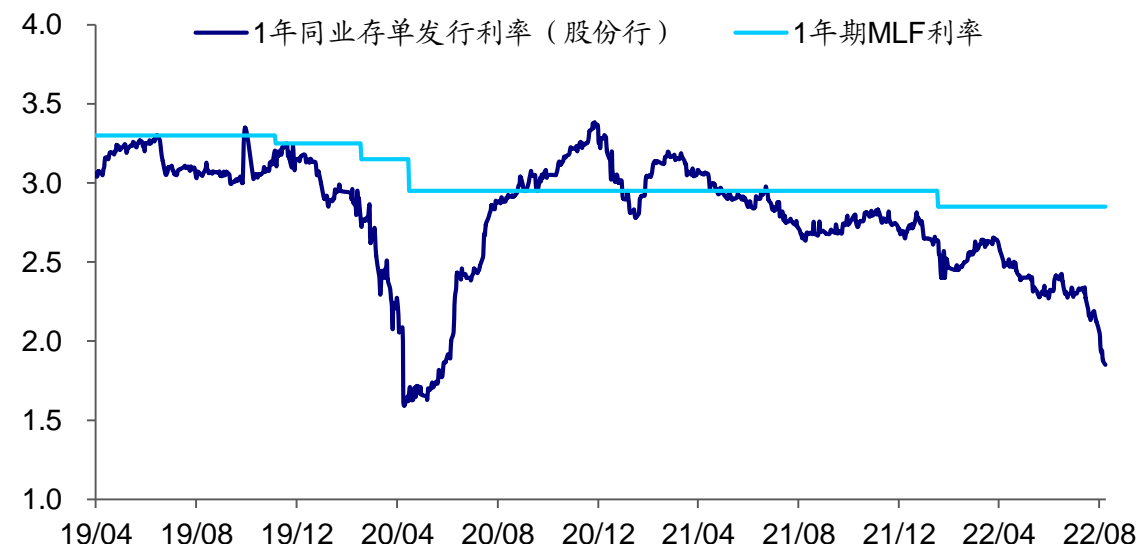
价格方面，核心的指标是质押式回购加权利率，主要观察DR007和R007，DR指的是银行之间的资金价格，R则是银行和非银金融机构的资金价格。

中期市场利率，可以观察同业存单发行利率，受银行对中长期资金的需求与获取成本的影响。与资金利率的相关性比较高，当然也受到金融监管政策的影响。

## DR007与7天逆回购利率（%）



## 同业存单和MLF利率走势（%）



资料来源：WIND，HTI

For full disclosure of risks, valuation methodologies and target price formation on all HTI rated stocks, please refer to the latest full report on our website at [equities.htisec.com](http://equities.htisec.com)

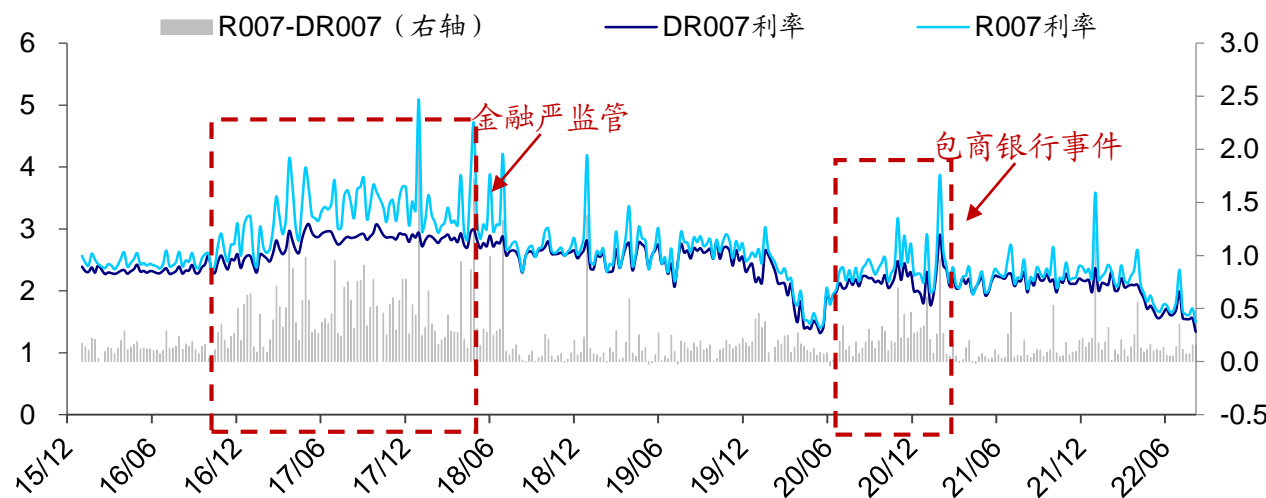


# 结构性因素

**结构方面**，随着主要的投放方式从外汇占款转向主动的公开市场投放，流动性呈现分层的结构，体现在R和DR的利差。处于流动性顶端的是央行，其提供流动性给金融机构，而金融机构则负责提供流动性给实体经济。比如说央行全面降准，就是释放流动性给所有的商业银行，商业银行得到资金之后就可以增加信贷投放。

在央行的日常操作中，通常是在公开市场提供流动性给大中型商业银行，而大中型商业银行再把资金融出给中小银行和非银行金融机构。也就是说，如果把流动性看做是一条河，那么央行是流动性的源头，而大中型商业银行是流动性的上游，而中小银行和非银行金融机构处于流动性的中下游。如果是在正常的情况下，在央行释放流动性之后，资金会从源头向上中下游依次流动。但是如果发生极端情况，比如说资金淤积在上游，而在中下游发生资金紧缺，就有可能导致流动性的结构性紧张。

## R007和DR007利率（%）



资料来源：WIND，HTI

For full disclosure of risks, valuation methodologies and target price formation on all HTI rated stocks, please refer to the latest full report on our website at [equities.htisec.com](http://equities.htisec.com)

# 为什么价比量重要？

随着基础货币投放方式发生变化，我国的货币政策调控框架已经从数量型转向了价格型。2014年之前，由于基础货币主要来源于外汇占款的被动投放，央行更多的是被动回收流动性，因此量的调控更容易实施。随着基础货币的投放方式由被动转变成主动，央行可以更加精准的调控银行间市场的流动性。而利率作为资金的价格，其变化趋势反映了资金的供求关系，央行可以通过主动操作量的多少，影响资金供给、进而影响资金价格。所以利率逐渐成为了央行货币政策操作的目标。

而且回顾来看，近年我们的超储率基本保持在偏低位运行。通过下调超额准备金利率、完善流动性管理和短期利率调控框架等措施，金融机构的超额准备金需求已经进一步降低。所以虽然超储率的中枢下降，但货币市场利率运行反而更加平稳。因而央行反复强调，**判断流动性松紧时，只需关注市场利率，无需过度关注“数量”。**

1. 中央銀行：总量调控
2. 如何观测狭义流动性？
3. 商業銀行：信用创造
4. 如何观测广义流动性？
5. 流动性的传导与影响

# 商业银行是信用创造的主体

银行业通过存款、金融负债等途径吸收资金，通过贷款、债券和同业等途径投放资金，通过赚取息差获益。在这一过程中，信用货币被创造出来，在基础货币的基础上实现“乘数”效应。

商业银行货币派生的途径主要分为五种：传统信贷、向非银行类企业购买债券、购买外汇、同业业务以及影子银行。

## 其他存款性公司资产负债表

资产	负债
国外资产	对非金融机构及住户负债
储备资产	对中央银行负债
对政府债权	对其他存款性公司负债
对中央银行债权	对其他金融性公司负债
对其他存款性公司债权	国外负债
对其他金融机构债权	债券发行
对非金融机构债权	实收资本
对其他居民部门债权	其他负债
其他资产	

资料来源：HTI

For full disclosure of risks, valuation methodologies and target price formation on all HTI rated stocks, please refer to the latest full report on our website at [equities.htisec.com](http://equities.htisec.com)

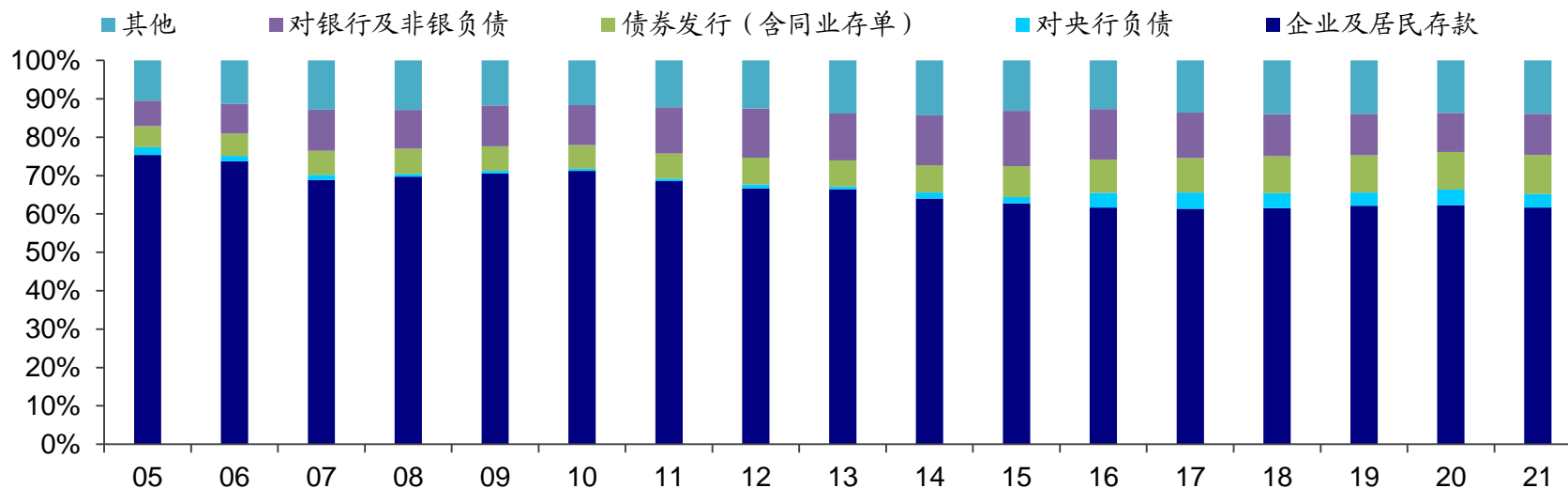
# 负债端：同业业务

从商业银行负债端看，传统的贷款投放占比持续下滑，同业业务及央行公开投放的影响增加。

同业业务的扩张，一方面体现为，对银行和非银负债的占比从2010年的10.4%开始扩张，到2015年达到高点14.4%，包括前期银行间同业拆借等交易增加，而后货币基金类业务迅速发展，居民存款“搬家”，对非银的负债明显扩张；另一方面，债券发行从不足7%升至9%以上，主要是2013年以后商业银行大量发行同业存单以扩张主动负债。

2014年以来，公开市场投放替代外汇占款成为央行基础货币的主要投放渠道，就表现为负债端中对央行负债的占比从2013年的0.8%扩张到2021年的3.4%。

## 其他存款性公司负债端变化



资料来源：WIND，HTI

For full disclosure of risks, valuation methodologies and target price formation on all HTI rated stocks, please refer to the latest full report on our website at [equities.htisec.com](http://equities.htisec.com)

# 资产端：同业资产、居民杠杆

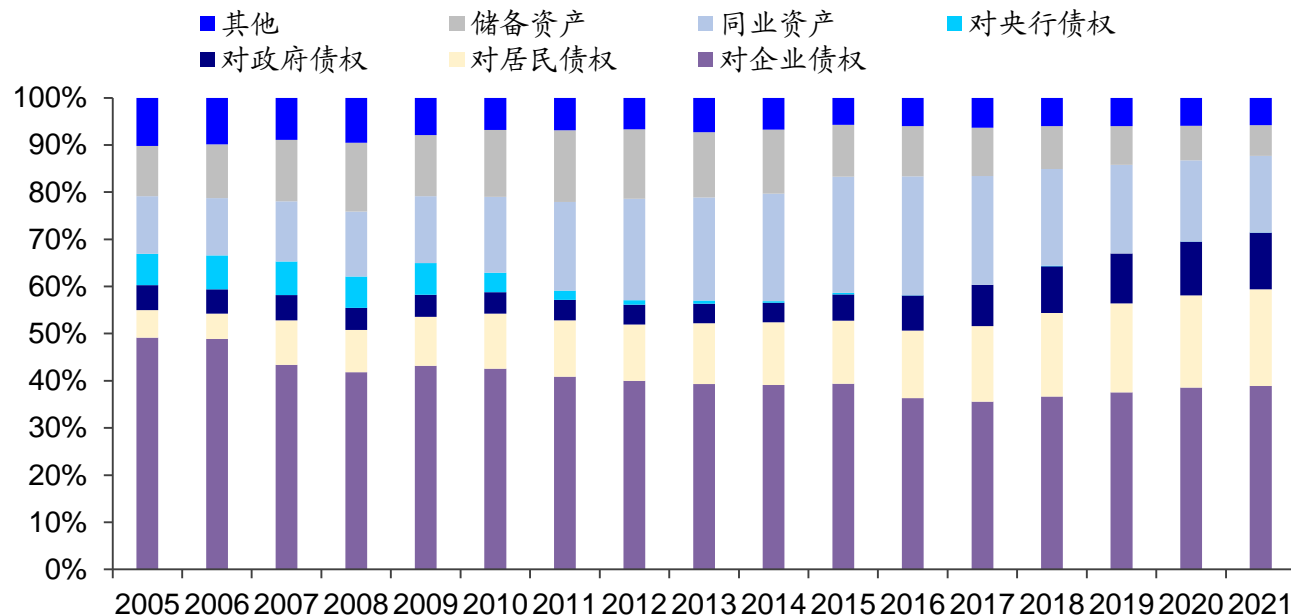
从资产端看，同业资产经历扩张而后收缩，居民部门加杠杆趋势明显。

对实体部门债权的占比在近十年持续抬升，其中截至2021年，对政府和对居民部门债权分别较2011年提高7.7bp和8.6bp。

随着金融创新推进，包括影子银行高速增长，同业资产从2010年开始经历迅速扩张，占比从16%提升到25%以上。而后由于监管不断收紧，尤其是2018年资管新规的推出，使得对同业债权重新压缩，当前已回到16%水平。对应到金融机构信贷收支表，股权及其他投资一项就集中体现了同业投资的情况，包括银行对信托、资管计划和理财等产品的投资。相比于债券投资的占比稳定增长，股权及其他投资则经历了迅速攀升而后重新回落的过程。

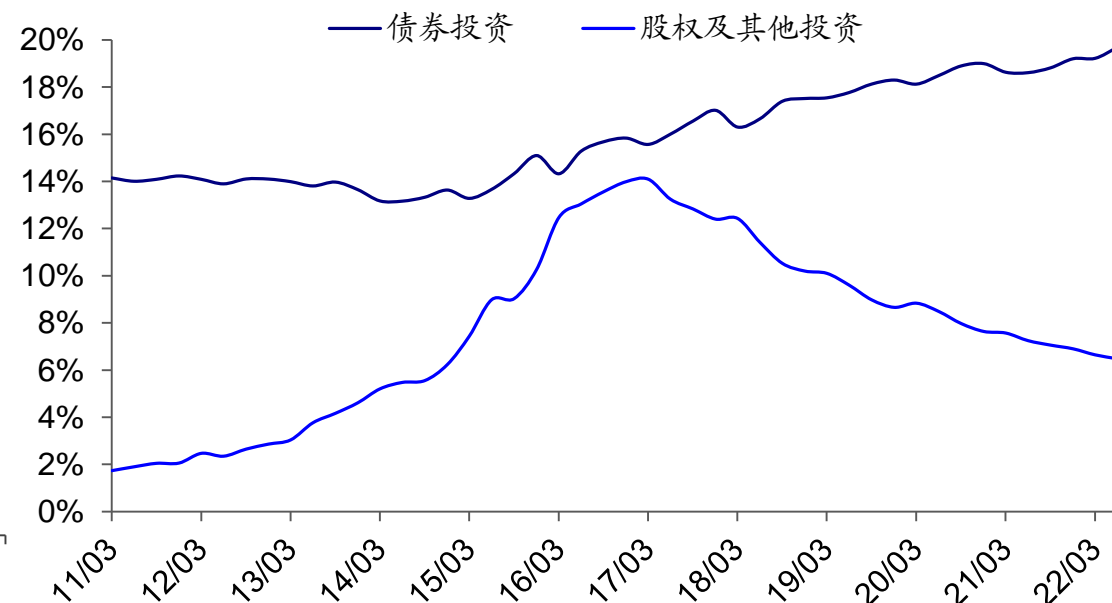
储备资产在2013年以后趋势性收缩，对应着准备金率的持续调降、超储率也走向低位。

## 其他存款性公司资产端变化



资料来源：WIND，HTI

## 债券投资和股权及其他投资占比



For full disclosure of risks, valuation methodologies and target price formation on all HTI rated stocks, please refer to the latest full report on our website at [equities.htisec.com](http://equities.htisec.com)

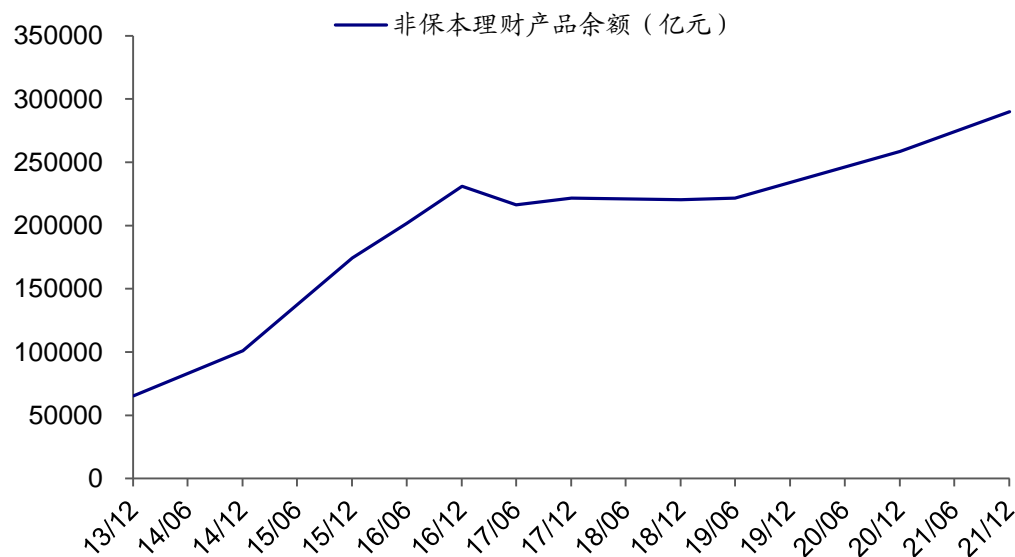


# 表外业务大发展

从表外业务看，2016年以前表外理财也经历快速发展。从2013年底到2016年底，非保本理财规模增长了2.5倍。

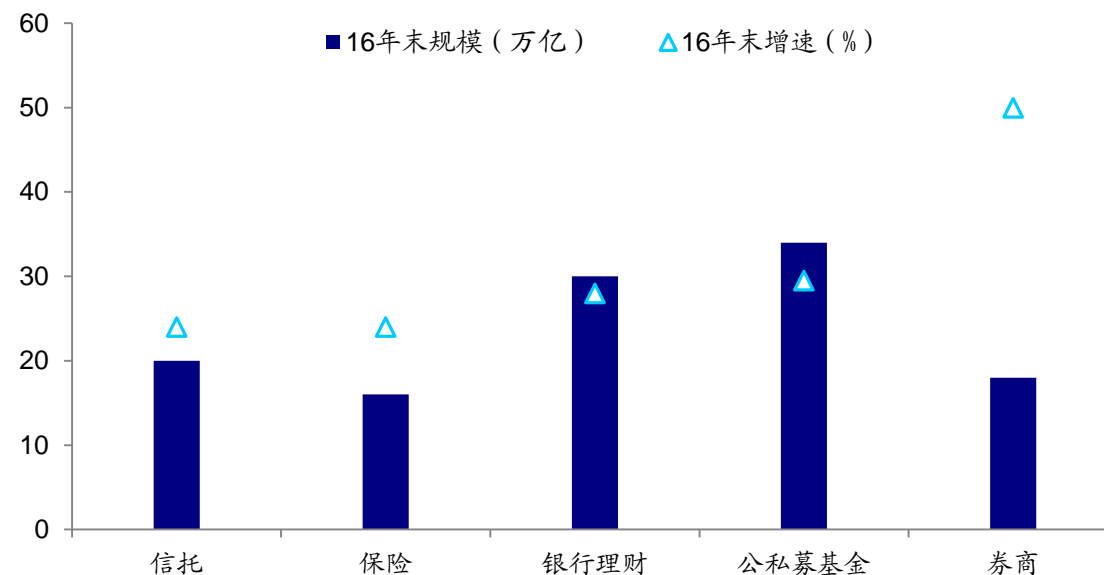
同一时期，受益于通道业务的迅速发展，我国的每个金融行业增速都很快，比如2016年每个行业的规模增速都在20%以上，到2016年底信托行业规模超过20万亿，券商资管接近20万亿，基金子公司超过10万亿。

## 非保本理财产品余额（亿元）



资料来源：WIND，HTI

## 2016年末非银金融行业规模及增速



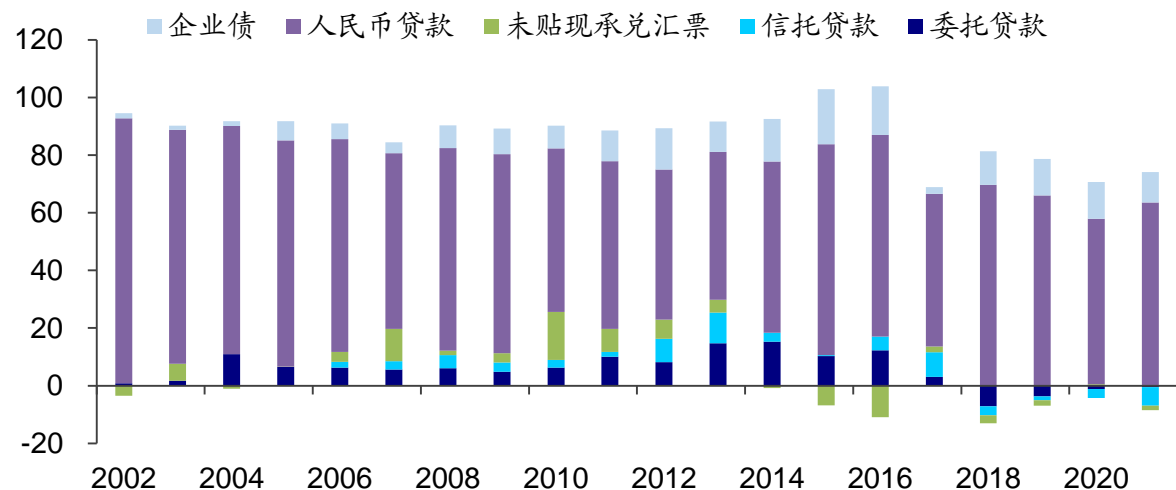
相对应的，银行信用扩张方式的变化也带来了实体融资结构的变化。

以2010年为分界，此前社融中人民币贷款的占比多数时候都在较高水平。而2010年以后，非标融资，包括信托贷款、委托贷款和未贴现汇票三项的规模迅速增长，并对传统贷款形成挤压。这与银行表外业务快速发展投资非标是相对应的。而直到资管新规推出，严监管下信托、委托贷款连续负增长。

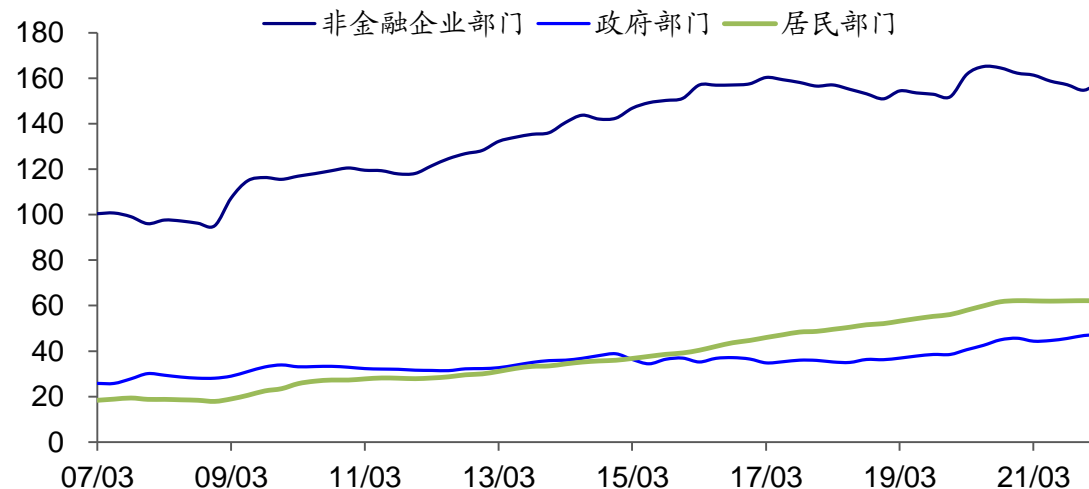
此外，企业债融资的占比也在持续增加，与表内外理财资金推动债券市场发展有关。

非标和企业债的迅速扩容，助推了企业部门杠杆率从2010年3月的117%一直上行到2017年3月的160%。

## 社融分项的占比 (%)



## 部门杠杆率的变化 (%)



资料来源: WIND, HTI

For full disclosure of risks, valuation methodologies and target price formation on all HTI rated stocks, please refer to the latest full report on our website at [equities.htisec.com](http://equities.htisec.com)

- 首先，广义流动性直接受到银行超储的约束，超储的规模决定了派生货币的上限；
- 其次，银行的信用扩张还有受监管体系制约，比如MPA考核等；
- 除了供给端的影响因素外，对广义流动性来说，实体融资需求也很重要，与产业发展、经济景气程度等多种因素相关。

1. 中央銀行：总量调控
2. 如何观测狭义流动性？
3. 商業銀行：信用创造
4. 如何观测广义流动性？
5. 流动性的传导与影响

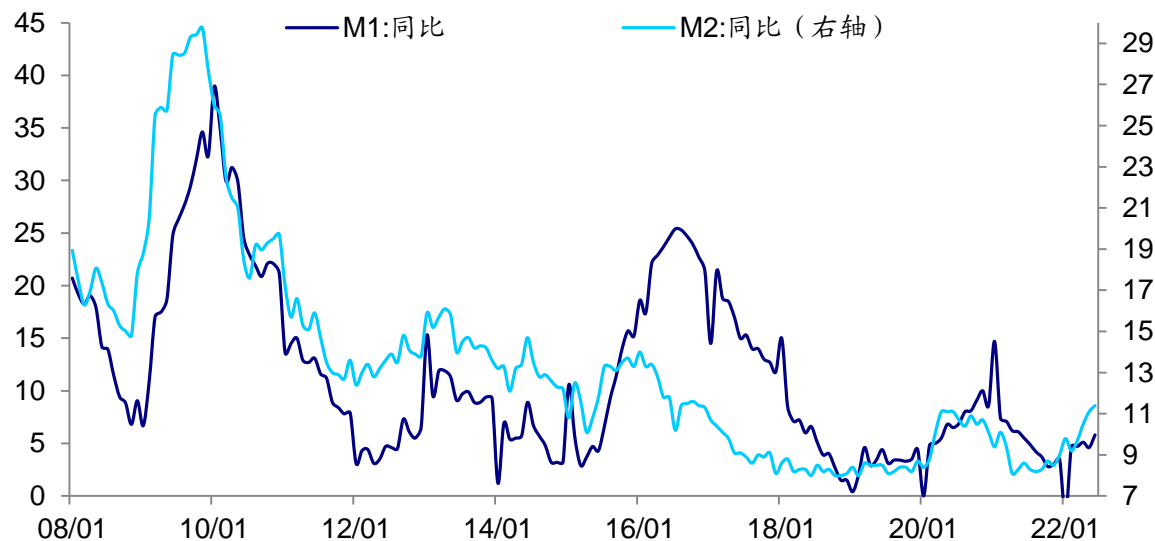
# 如何观测广义流动性？

量方面主要看社融或M2增速、信贷额度等。

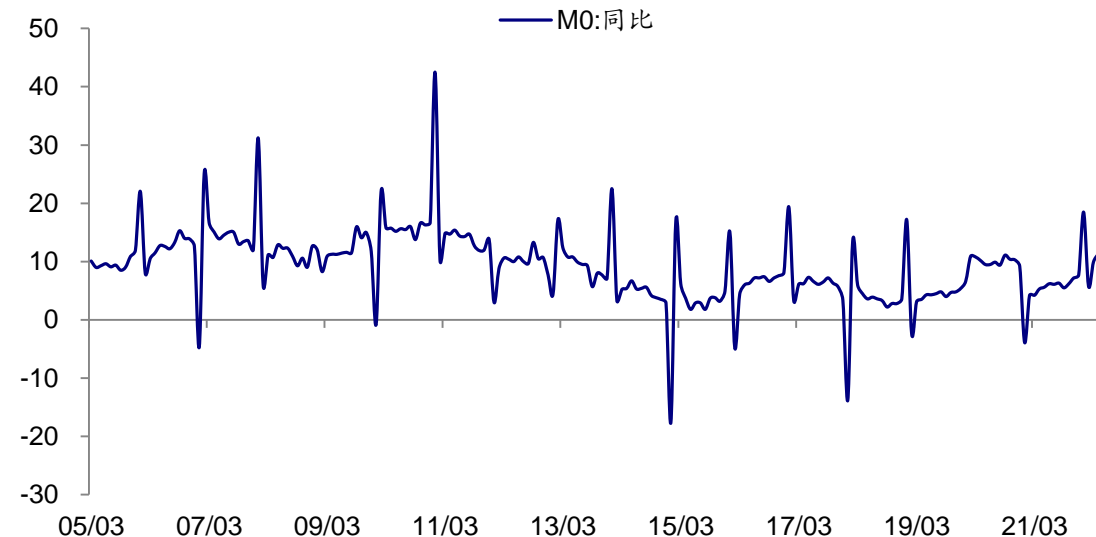
货币的总量即是衡量实体和非银金融部门持有的所有流动性较高的资产的总和。所以根据货币的流动性程度，我国的货币统计包括三个层次，第一层是流动中的现金（M0）；第二层加上单位活期存款（M1）；第三层加上单位定期、储蓄存款，居民存款，和非银同业存款（M2）。

M2=流通中货币(M0)+单位活期存款+单位定期存款+城乡居民储蓄存款+其他存款

## M1和M2增速（%）



## M0增速（%）



资料来源：WIND，HTI

For full disclosure of risks, valuation methodologies and target price formation on all HTI rated stocks, please refer to the latest full report on our website at [equities.htisec.com](http://equities.htisec.com)

# 社融与M2增速剪刀差

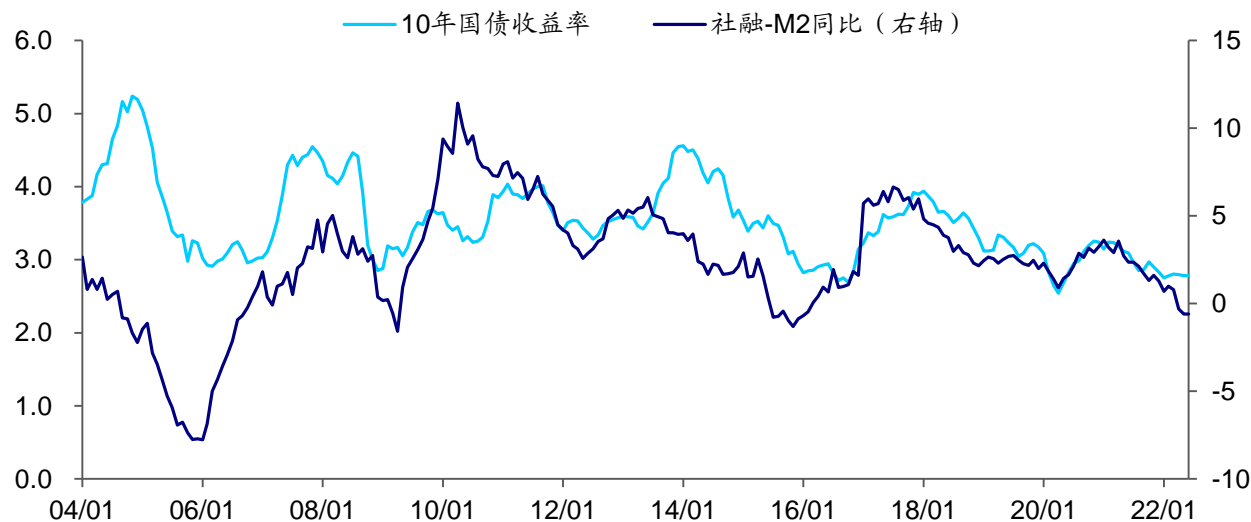
社融体现的是金融机构（银行和非银）创造的总资产，M2体现的是银行体系负债端。

外汇占款增加和财政的投放拉动M2，但不影响社融。近年外汇占款波动很小，财政投放只是短期影响。

所以社融-M2的趋势可以体现非银金融机构对实体部门的支持力度。具体来说，银行购买非银机构的资管等金融产品将派生M2，如果非银机构从银行体系拿到钱后没有投入到实体经济，则会产生资金空转，此时M2增长而社融规模不变，社融-M2增速差缩窄。

社融-M2剪刀差与10Y国债利率走势较为一致。近一年社融-M2增速差收窄一定程度反映了“资金空转”或者是流动性在银行间市场淤积。

## 社融-M2剪刀差与10年期国债利率（%）



资料来源：WIND，HTI

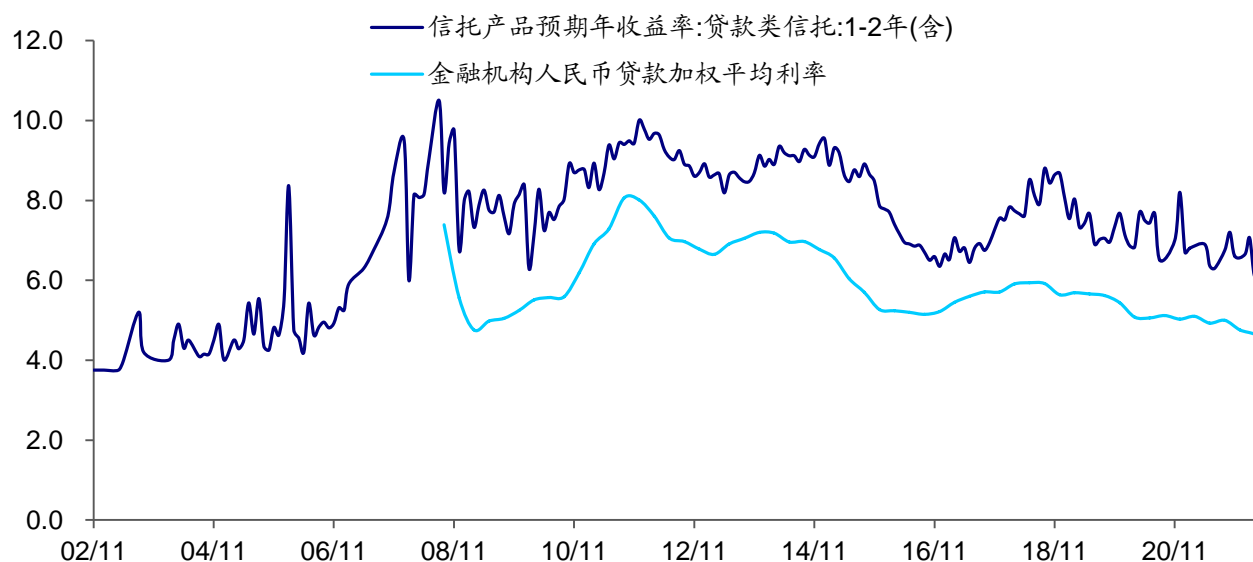
For full disclosure of risks, valuation methodologies and target price formation on all HTI rated stocks, please refer to the latest full report on our website at [equities.htisec.com](http://equities.htisec.com)



# 如何观测广义流动性？

价格方面，主要关注信贷利率。不过央行季度频率公布贷款加权平均利率。另外，还可以看票据利率（对应融资需求）和贷款类信托产品收益率等。

## 贷款加权平均利率与贷款类信托预期收益率（%）



资料来源：WIND，HTI

For full disclosure of risks, valuation methodologies and target price formation on all HTI rated stocks, please refer to the latest full report on our website at [equities.htisec.com](http://equities.htisec.com)

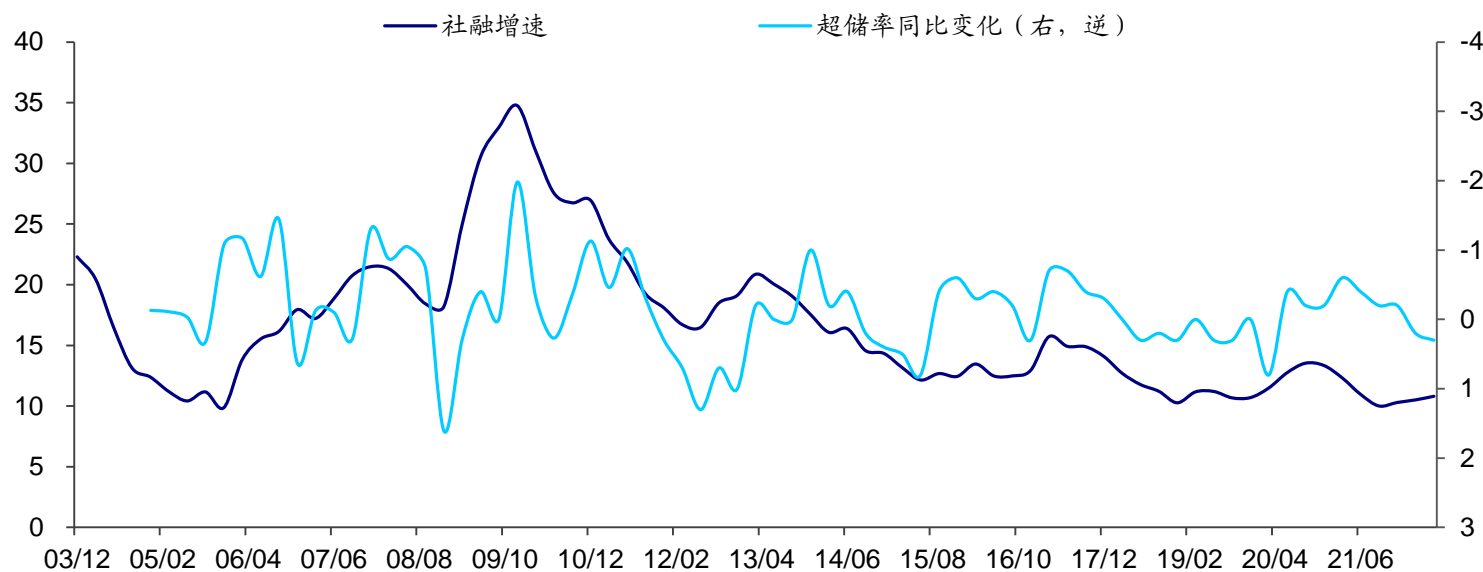
1. 中央銀行：总量调控
2. 如何观测狭义流动性？
3. 商業銀行：信用创造
4. 如何观测广义流动性？
5. 流动性的传导与影响

# 狭义和广义流动性的传导

静态情况下，也就是央行不投放基础货币时，狭义流动性和广义流动性理论上是反向变动的，因为广义流动性扩张，信贷投放增加，需要银行缴纳更多法定存款准备金消耗狭义流动性。

而动态场景下，狭义流动性是广义流动性变化的基础。央行投放基础货币，超储增加，银行能够进一步扩张信用，派生更多存款，带来广义流动性的扩张。所以狭义流动性和广义流动性越是同步，意味着央行货币政策的传导越顺畅，政策效率越高。

## 社会融资规模同比与超储率同比 (%)



资料来源：WIND，HTI

For full disclosure of risks, valuation methodologies and target price formation on all HTI rated stocks, please refer to the latest full report on our website at [equities.htisec.com](http://equities.htisec.com)

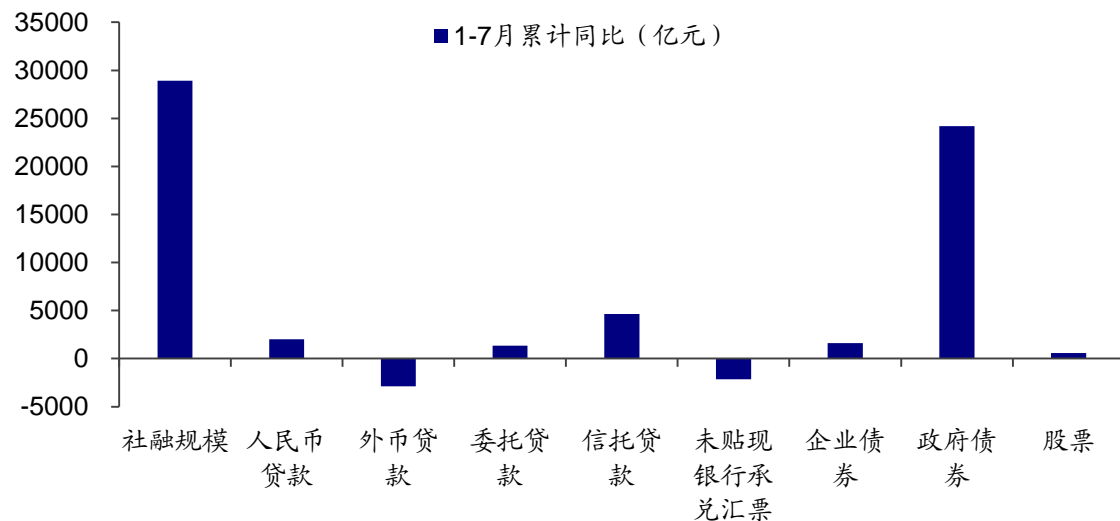
# 当前广义流动性怎样？

从社融角度看，社融总量表现好，但结构仍弱。

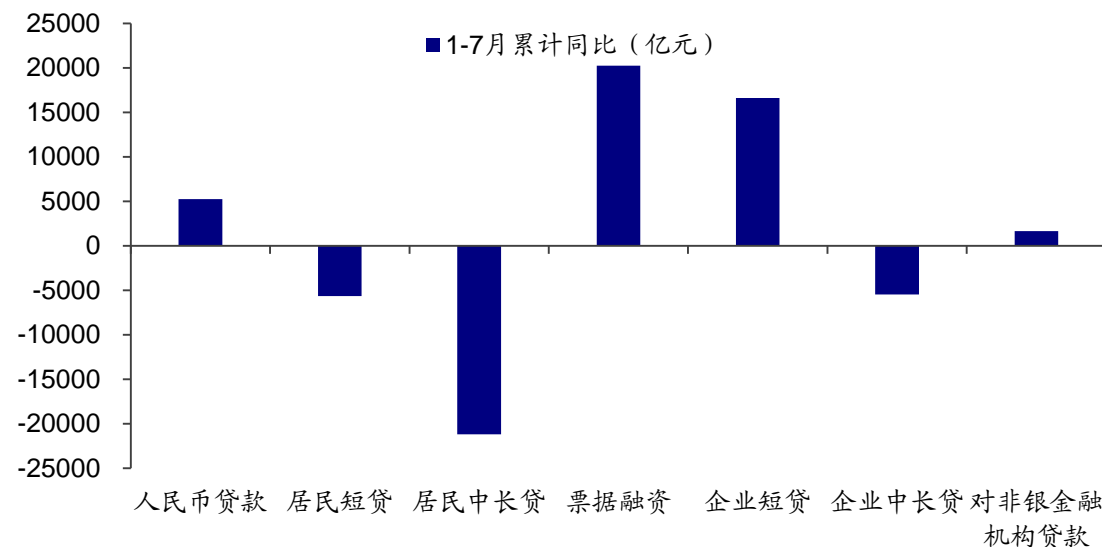
我国社融存量增速从去年10月的10.0%上升至今年7月10.7%。分结构看，今年1-7月累计新增社融同比去年高出2.89万亿元，其中2.4万亿都来自政府债券的贡献，人民币贷款同比仅多增2000亿元。

信贷扩张也主要受逆周期政策推动，比如票据融资、企业短贷同比大幅多增，而1-7月，顺周期的新增企业中长贷、居民中长贷还是同比负增的。总体来看，融资需求偏弱，仍有待政策发力。

## 1-7月新增社融累计同比（亿元）



## 1-7月新增人民币信贷同比（亿元）



资料来源：WIND，HTI

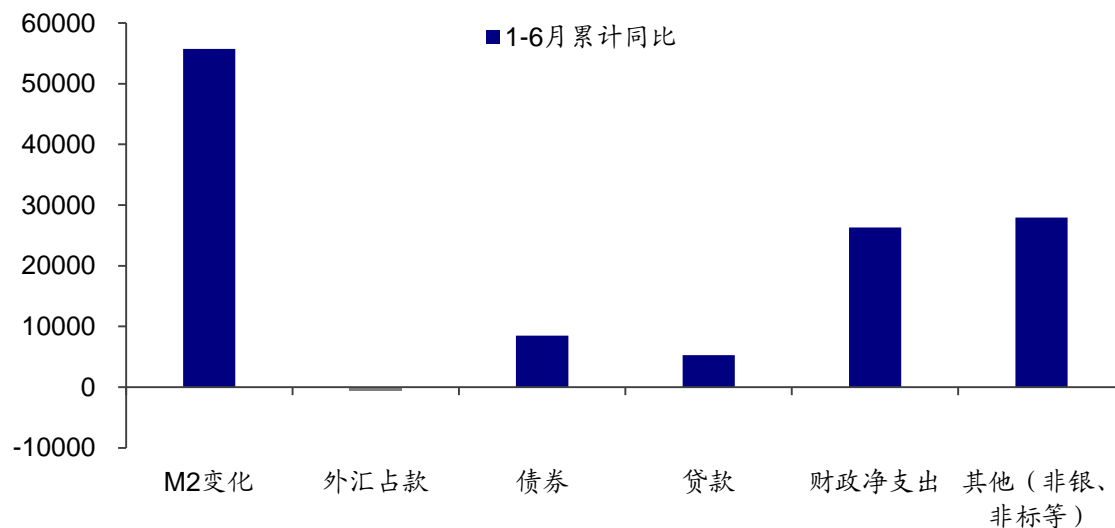
For full disclosure of risks, valuation methodologies and target price formation on all HTI rated stocks, please refer to the latest full report on our website at [equities.htisec.com](http://equities.htisec.com)

# 当前广义流动性怎样？

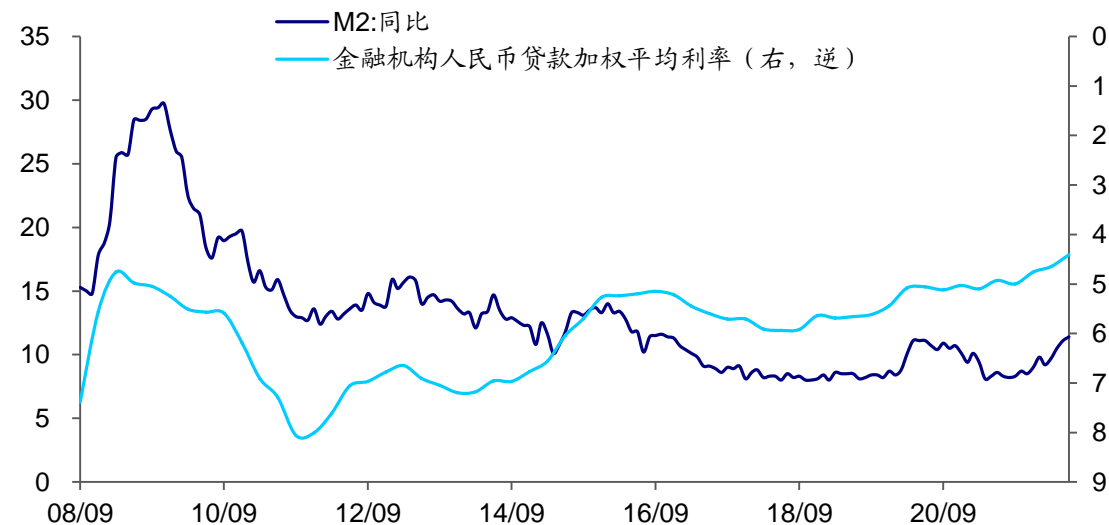
另一广义指标M2的总量也较快扩张，同比增速从去年底的9%上行至7月的12%。而根据M2的资金来源看，派生的主要动力来自财政发力（专项债前移、留抵退税）和银行购买资管产品等，而对实体的贷款投放力度明显较弱。

另外，从价格角度，贷款加权平均利率在今年出现较快回落。

## 1-6月M2增量的来源结构（亿元）



## M2同比和贷款利率（%）



资料来源：WIND，HTI

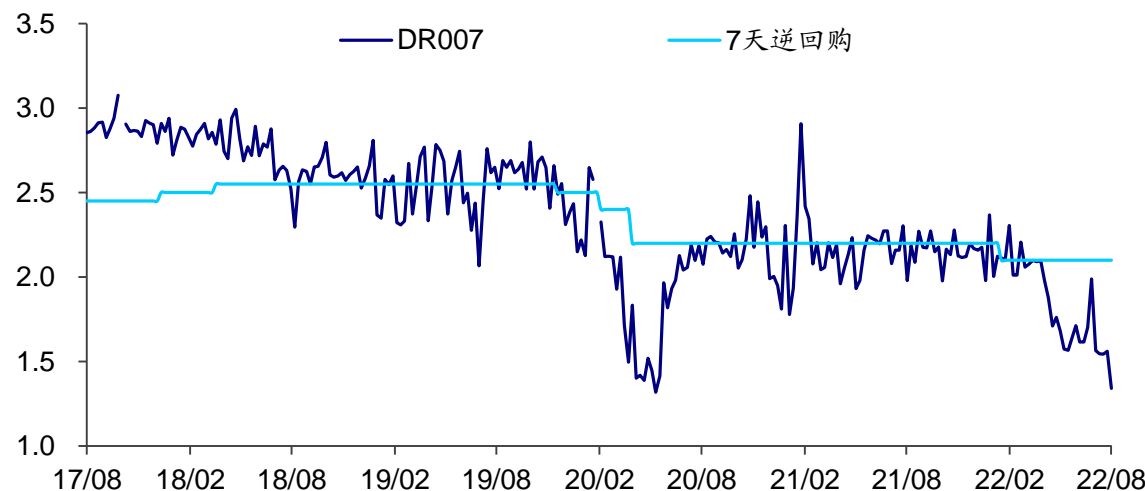
For full disclosure of risks, valuation methodologies and target price formation on all HTI rated stocks, please refer to the latest full report on our website at [equities.htisec.com](http://equities.htisec.com)

# 当前狭义流动性怎样？

二季度资金面持续宽松，后续DR007或逐步回升并趋近逆回购利率。

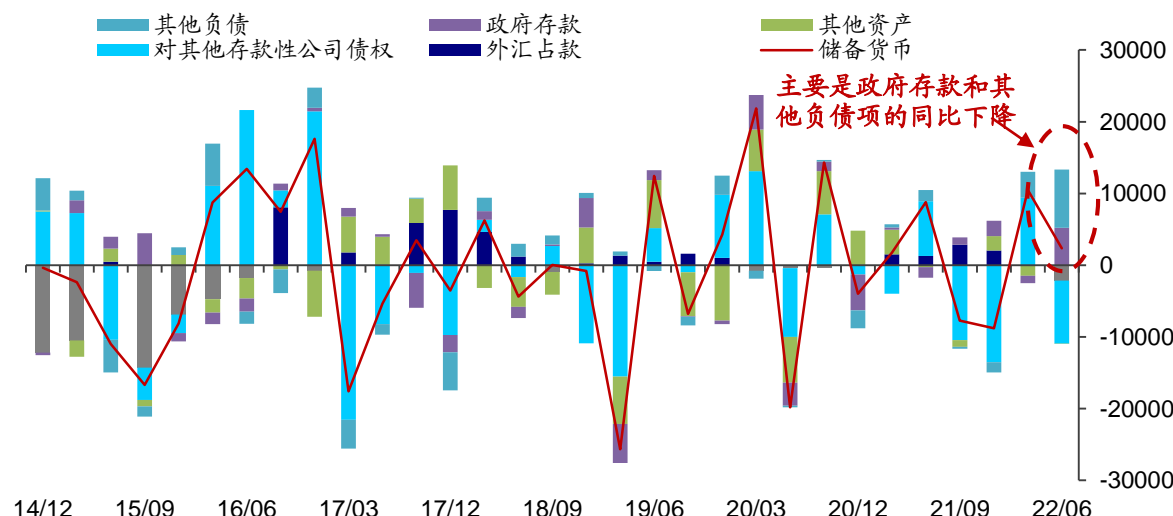
今年4月以来，资金面持续宽松，DR007保持在1.6%水平，8月进一步回落到1.4%左右。我们认为，宽松的资金主要是前期央行通过上缴财政利润（其他负债项）、降准等操作投放较多流动性，而实体融资需求较弱，广义货币创造偏慢，所以资金淤积银行间，央行缺乏有效的流动性回笼工具。不过我们认为，当前资金宽松是被动因素主导，而偏低的银行间资金利率并非常态，预计资金利率仍将缓慢回到接近逆回购利率水平，7月份以来，央行已经在减少资金的净投放，预计效果或逐步体现。

## 7天逆回购与DR007利率（%）



资料来源：WIND，HTI

## 央行资产负债表分项同比变化（亿元）



For full disclosure of risks, valuation methodologies and target price formation on all HTI rated stocks, please refer to the latest full report on our website at [equities.htisec.com](http://equities.htisec.com)

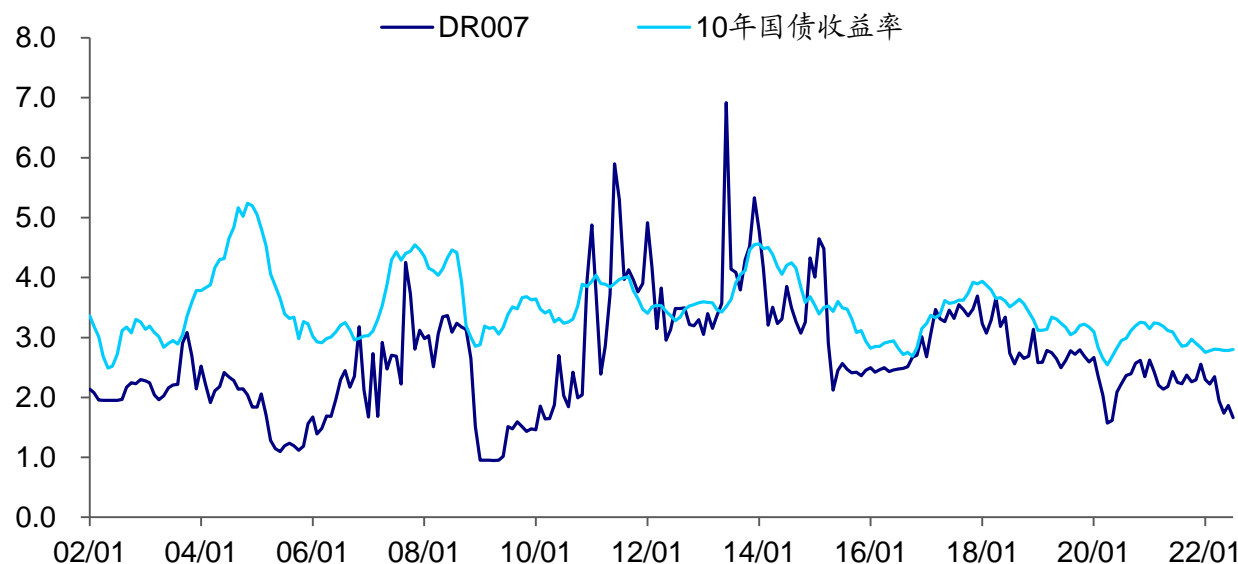


# 狭义流动性—债市

债市流动性与狭义流动性更为相关。对于债券市场，潜在的资金供给是各类金融机构，尤其是商业银行。因此，当银行间市场流动性宽松时，债券配置需求增加；短端利率也会受资金利率的直接影响。

不过由于广义流动性扩张又会消耗超储，所以对债市来说，相对更有利的就是经济下行过程中，央行投放基础货币，以提升信贷扩张潜力，但经济预期偏弱，企业主动贷款意愿较低的时期。

## DR007与10年期国债收益率相关性（%）



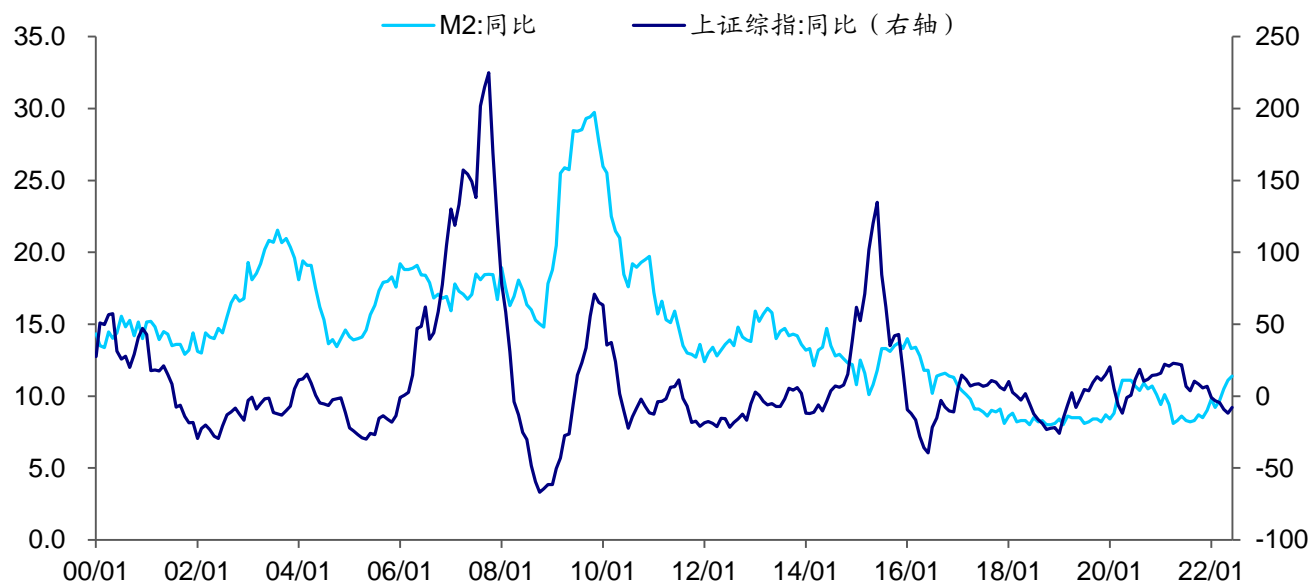
资料来源：WIND，HTI

For full disclosure of risks, valuation methodologies and target price formation on all HTI rated stocks, please refer to the latest full report on our website at [equities.htisec.com](http://equities.htisec.com)

股市流动性则更有赖于实体流动性。股市的主要投资者包括企业、个人、非银金融机构和外资等，因此股市流动性与实体流动性更相关。而且实体流动性走高，通常意味着经济基本面开始好转，还可以通过影响企业盈利推动股市表现。

不过股票市场的影响因素很多，因此在2005-2014年间我们看到了M2增速和股指表现有不错的相关性，但2015年以来，M2的指示效果并不算显著。

## M2同比与上证综指同比表现（%）



资料来源：WIND，HTI

For full disclosure of risks, valuation methodologies and target price formation on all HTI rated stocks, please refer to the latest full report on our website at [equities.htisec.com](http://equities.htisec.com)

- 1. Central bank: adjustment and control on overall economy
- 2. How to measure the narrow liquidity?
- 3. Commercial bank: credit creation
- 4. How to measure the general liquidity?
- 5. The transmission and impact of liquidity

## 重要信息披露

本研究报告由海通国际分销，海通国际是由海通国际研究有限公司(HTIRL)，Haitong Securities India Private Limited (HSIPL)，Haitong International Japan K.K. (HTIJKK)和海通国际证券有限公司(HTISCL)的证券研究团队所组成的全球品牌，海通国际证券集团(HTISG)各成员分别在其许可的司法管辖区内从事证券活动。

### IMPORTANT DISCLOSURES

This research report is distributed by Haitong International, a global brand name for the equity research teams of Haitong International Research Limited (“HTIRL”), Haitong Securities India Private Limited (“HSIPL”), Haitong International Japan K.K. (“HTIJKK”), Haitong International Securities Company Limited (“HTISCL”), and any other members within the Haitong International Securities Group of Companies (“HTISG”), each authorized to engage in securities activities in its respective jurisdiction.

### HTIRL分析师认证Analyst Certification:

我，梁中华，在此保证（i）本研究报告中的意见准确反映了我们对本研究中提及的任何或所有目标公司或上市公司的个人观点，并且（ii）我的报酬中没有任何部分与本研究报告中表达的具体建议或观点直接或间接相关；及就此报告中所讨论目标公司的证券，我们（包括我们的家属）在其中均不持有任何财务利益。I, Yugen Xun, certify that (i) the views expressed in this research report accurately reflect my personal views about any or all of the subject companies or issuers referred to in this research and (ii) no part of my compensation was, is or will be directly or indirectly related to the specific recommendations or views expressed in this research report; and that I (including members of my household) have no financial interest in the security or securities of the subject companies discussed.

我，Amber Zhou，在此保证（i）本研究报告中的意见准确反映了我们对本研究中提及的任何或所有目标公司或上市公司的个人观点，并且（ii）我的报酬中没有任何部分与本研究报告中表达的具体建议或观点直接或间接相关；及就此报告中所讨论目标公司的证券，我们（包括我们的家属）在其中均不持有任何财务利益。I, Amber Zhou, certify that (i) the views expressed in this research report accurately reflect my personal views about any or all of the subject companies or issuers referred to in this research and (ii) no part of my compensation was, is or will be directly or indirectly related to the specific recommendations or views expressed in this research report; and that I (including members of my household) have no financial interest in the security or securities of the subject companies discussed.

## 利益冲突披露Conflict of Interest Disclosures

海通国际及其某些关联公司可从事投资银行业务和/或对本研究中的特定股票或公司进行做市或持有自营头寸。就本研究报告而言，以下是有关该等关系的披露事项（以下披露不能保证及时无遗漏，如需了解及时全面信息，[请发邮件至ERD-Disclosure@htisec.com](mailto:ERD-Disclosure@htisec.com)）

HTI and some of its affiliates may engage in investment banking and / or serve as a market maker or hold proprietary trading positions of certain stocks or companies in this research report. As far as this research report is concerned, the following are the disclosure matters related to such relationship (As the following disclosure does not ensure timeliness and completeness, please send an email to [ERD-Disclosure@htisec.com](mailto:ERD-Disclosure@htisec.com) if timely and comprehensive information is needed).

## 评级定义（从2020年7月1日开始执行）：

海通国际（以下简称“HTI”）采用相对评级系统来为投资者推荐我们覆盖的公司：优于大市、中性或弱于大市。投资者应仔细阅读HTI的评级定义。并且HTI发布分析师观点的完整信息，投资者应仔细阅读全文而非仅看评级。在任何情况下，分析师的评级和研究都不能作为投资建议。投资者的买卖股票的决策应基于各自情况（比如投资者的现有持仓）以及其他因素。

## 分析师股票评级

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

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

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

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

## Ratings Definitions (from 1 Jul 2020):

Haitong International uses a relative rating system using Outperform, Neutral, or Underperform for recommending the stocks we cover to investors. Investors should carefully read the definitions of all ratings used in Haitong International Research. In addition, since Haitong International Research contains more complete information concerning the analyst's views, investors should carefully read Haitong International Research, in its entirety, and not infer the contents from the rating alone. In any case, ratings (or research) should not be used or relied upon as investment advice. An investor's decision to buy or sell a stock should depend on individual circumstances (such as the investor's existing holdings) and other considerations.

## Analyst Stock Ratings

**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.

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

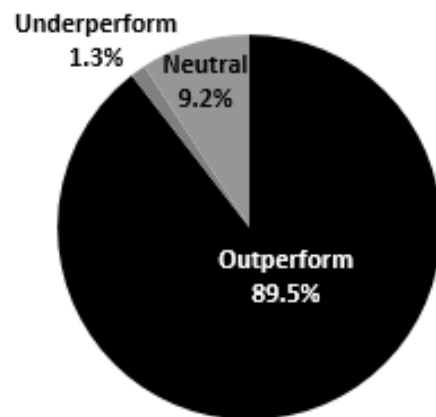
**Underperform:** The stock's total return over the next 12-18 months is expected to be below the return of its relevant broad market benchmark, as indicated below.

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

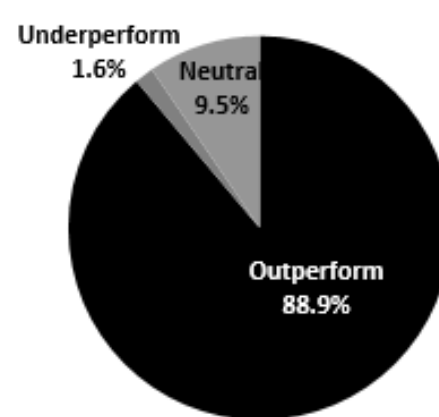


## 评级分布 Rating Distribution

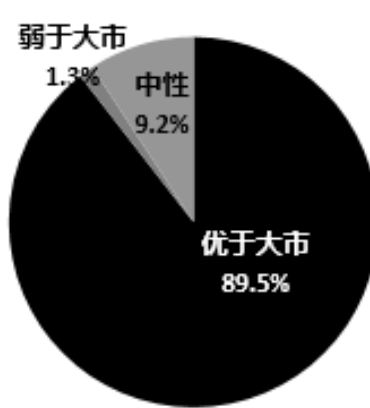
Most Recent Full Quarter



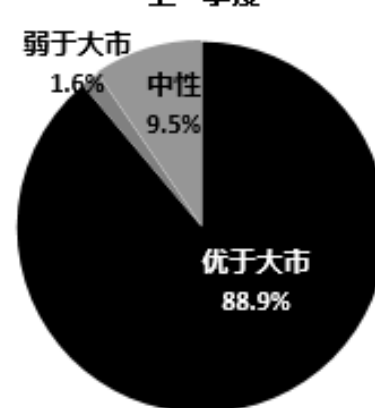
Prior Full Quarter



最新季度



上一季度



截至2022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	89.5%	9.2%	1.3%
投资银行客户*	5.9%	5.6%	5.0%

\*在每个评级类别里投资银行客户所占的百分比。

上述分布中的买入，中性和卖出分别对应我们当前优于大市，中性和落后大市评级。

只有根据FINRA/NYSE的评级分布规则，我们才将中性评级划入持有这一类别。请注意在上表中不包含非评级的股票。

此前的评级系统定义（直至2020年6月30日）：

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.

Haitong International Equity Research Ratings Distribution, as of Jun 30, 2022

	Outperform	Neutral (hold)	Underperform
HTI Equity Research Coverage	89.5%	9.2%	1.3%
IB clients*	5.9%	5.6%	5.0%

\*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.

For purposes only of FINRA/NYSE ratings distribution rules, our Neutral rating falls into a hold rating category. Please note that stocks with an NR designation are not included in the table above.

Previous rating system definitions (until 30 Jun 2020):

**BUY:** 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.

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

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

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

**海通国际非评级研究：**海通国际发布计量、筛选或短篇报告，并在报告中根据估值和其他指标对股票进行排名，或者基于可能的估值倍数提出建议价格。这种排名或建议价格并非为了进行股票评级、提出目标价格或进行基本面估值，而仅供参考使用。

**Haitong International Non-Rated Research:** Haitong International publishes quantitative, screening or short reports which may rank stocks according to valuation and other metrics or may suggest prices based on possible valuation multiples. Such rankings or suggested prices do not purport to be stock ratings or target prices or fundamental values and are for information only.

**海通国际A股覆盖：**海通国际可能会就沪港通及深港通的中国A股进行覆盖及评级。海通证券（600837.CH），海通国际于上海的母公司，也会于中国发布中国A股的研究报告。但是，海通国际使用与海通证券不同的评级系统，所以海通国际与海通证券的中国A股评级可能有所不同。

**Haitong International Coverage of A-Shares:** Haitong International may cover and rate A-Shares that are subject to the Hong Kong Stock Connect scheme with Shanghai and Shenzhen. Haitong Securities (HS; 600837 CH), the ultimate parent company of HTISG based in Shanghai, covers and publishes research on these same A-Shares for distribution in mainland China. However, the rating system employed by HS differs from that used by HTI and as a result there may be a difference in the HTI and HS ratings for the same A-share stocks.

**海通国际优质100 A股（Q100）指数：**海通国际Q100指数是一个包括100支由海通证券覆盖的优质中国A股的计量产品。这些股票是通过基于质量的筛选过程，并结合对海通证券A股团队自下而上的研究。海通国际每季对Q100指数成分作出复审。

**Haitong International Quality 100 A-share (Q100) Index:** HTI's Q100 Index is a quant product that consists of 100 of the highest-quality A-shares under coverage at HS in Shanghai. These stocks are carefully selected through a quality-based screening process in combination with a review of the HS A-share team's bottom-up research. The Q100 constituent companies are reviewed quarterly.

**MSCI ESG评级免责声明条款：** 尽管海通国际的信息供货商（包括但不限于MSCI ESG Research LLC及其联属公司（「ESG方」）从其认为可靠的来源获取信息（「信息」），ESG方均不担保或保证此处任何数据的原创性，准确性和/或完整性，并明确表示不作出任何明示或默示的担保，包括可商售性和针对特定目的的适用性。该信息只能供阁下内部使用，不得以任何形式复制或重新传播，并不得用作任何金融工具、产品或指数的基础或组成部分。此外，信息本质上不能用于判断购买或出售何种证券，或何时购买或出售该证券。即使已被告知可能造成的损害，ESG方均不承担与此处任何资料有关的任何错误或遗漏所引起的任何责任，也不对任何直接、间接、特殊、惩罚性、附带性或任何其他损害赔偿（包括利润损失）承担任何责任。

**MSCI ESG Disclaimer:** Although Haitong International's information providers, including without limitation, MSCI ESG Research LLC and its affiliates (the "ESG Parties"), obtain information (the "Information") from sources they consider reliable, none of the ESG Parties warrants or guarantees the originality, accuracy and/or completeness, of any data herein and expressly disclaim all express or implied warranties, including those of merchantability and fitness for a particular purpose. The Information may only be used for your internal use, may not be reproduced or redisseminated in any form and may not be used as a basis for, or a component of, any financial instruments or products or indices. Further, none of the Information can in and of itself be used to determine which securities to buy or sell or when to buy or sell them. None of the ESG Parties shall have any liability for any errors or omissions in connection with any data herein, or any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) even if notified of the possibility of such damages.

**盟浪义利（FIN-ESG）数据通免责声明条款：**在使用盟浪义利（FIN-ESG）数据之前，请务必仔细阅读本条款并同意本声明：

**第一条** 义利（FIN-ESG）数据系由盟浪可持续数字科技有限责任公司（以下简称“本公司”）基于合法取得的公开信息评估而成，本公司对信息的准确性及完整性不作任何保证。对公司的评估结果仅供参考，并不构成对任何个人或机构投资建议，也不能作为任何个人或机构购买、出售或持有相关金融产品的依据。本公司不对任何个人或机构投资者因使用本数据表述的评估结果造成的任何直接或间接损失负责。

**第二条** 盟浪并不因收到此评估数据而将收件人视为客户，收件人使用此数据时应根据自身实际情况作出自我独立判断。本数据所载内容反映的是盟浪在最初发布本数据日期当日的判断，盟浪有权在不发出通知的情况下更新、修订与发出其他与本数据所载内容不一致或有不同结论的数据。除非另行说明，本数据（如财务业绩数据等）仅代表过往表现，过往的业绩表现不作为日后回报的预测。

**第三条** 本数据版权归本公司所有，本公司依法保留各项权利。未经本公司事先书面许可授权，任何个人或机构不得将本数据中的评估结果用于任何营利性目的，不得对本数据进行修改、复制、编译、汇编、再次编辑、改编、删减、缩写、节选、发行、出租、展览、表演、放映、广播、信息网络传播、摄制、增加图标及说明等，否则因此给盟浪或其他第三方造成损失的，由用户承担相应的赔偿责任，盟浪不承担责任。

**第四条** 如本免责声明未约定，而盟浪网站平台载明的其他协议内容（如《盟浪网站用户注册协议》《盟浪网用户服务（含认证）协议》《盟浪网隐私政策》等）有约定的，则按其他协议的约定执行；若本免责声明与其他协议约定存在冲突或不一致的，则以本免责声明约定为准。

**SusallWave FIN-ESG Data Service Disclaimer:** Please read these terms and conditions below carefully and confirm your agreement and acceptance with these terms before using SusallWave FIN-ESG Data Service.

1. FIN-ESG Data is produced by SusallWave Digital Technology Co., Ltd. (In short, SusallWave)'s assessment based on legal publicly accessible information. SusallWave shall not be responsible for any accuracy and completeness of the information. The assessment result is for reference only. It is not for any investment advice for any individual or institution and not for basis of purchasing, selling or holding any relative financial products. We will not be liable for any direct or indirect loss of any individual or institution as a result of using SusallWave FIN-ESG Data.

2. SusallWave do not consider recipients as customers for receiving these data. When using the data, recipients shall make your own independent judgment according to your practical individual status. The contents of the data reflect the judgment of us only on the release day. We have right to update and amend the data and release other data that contains inconsistent contents or different conclusions without notification. Unless expressly stated, the data (e.g., financial performance data) represents past performance only and the past performance cannot be viewed as the prediction of future return.

3. The copyright of this data belongs to SusallWave, and we reserve all rights in accordance with the law. Without the prior written permission of our company, none of individual or institution can use these data for any profitable purpose. Besides, none of individual or institution can take actions such as amendment, replication, translation, compilation, re-editing, adaption, deletion, abbreviation, excerpts, issuance, rent, exhibition, performance, projection, broadcast, information network transmission, shooting, adding icons and instructions. If any loss of SusallWave or any third-party is caused by those actions, users shall bear the corresponding compensation liability. SusallWave shall not be responsible for any loss.

4. If any term is not contained in this disclaimer but written in other agreements on our website (e.g. User Registration Protocol of SusallWave Website, User Service (including authentication) Agreement of SusallWave Website, Privacy Policy of Susallwave Website), it should be executed according to other agreements. If there is any difference between this disclaim and other agreements, this disclaimer shall be applied.



## 重要免责声明:

**非印度证券的研究报告:** 本报告由海通国际证券集团有限公司 (“HTISGL”) 的全资附属公司海通国际研究有限公司 (“HTIRL”) 发行, 该公司是根据香港证券及期货条例 (第571章) 持有第4类受规管活动 (就证券提供意见) 的持牌法团。该研究报告在HTISGL的全资附属公司Haitong International (Japan) K.K. (“HTIJKK”) 的协助下发行, HTIJKK是由日本关东财务局监管为投资顾问。

**印度证券的研究报告:** 本报告由从事证券交易、投资银行及证券分析及受Securities and Exchange Board of India (“SEBI”) 监管的Haitong Securities India Private Limited (“HTSIPL”) 所发行, 包括制作及发布涵盖BSE Limited (“BSE”) 和National Stock Exchange of India Limited (“NSE”) 上市公司 (统称为「印度交易所」) 的研究报告。HTSIPL于2016年12月22日被收购并成为海通国际证券集团有限公司 (“HTISG”) 的一部分。

所有研究报告均以海通国际为名作为全球品牌, 经许可由海通国际证券股份有限公司及/或海通国际证券集团的其他成员在其司法管辖区发布。

本文件所载信息和观点已被编译或源自可靠来源, 但HTIRL、HTISCL或任何其他属于海通国际证券集团有限公司 (“HTISG”) 的成员对其准确性、完整性和正确性不做任何明示或暗示的声明或保证。本文件中所有观点均截至本报告日期, 如有更改, 恕不另行通知。本文件仅供参考使用。文件中提及的任何公司或其股票的说明并非意图展示完整的内容, 本文件并非/不应被解释为对证券买卖的明示或暗示地出价或征价。在某些司法管辖区, 本文件中提及的证券可能无法进行买卖。如果投资产品以投资者本国货币以外的币种进行计价, 则汇率变化可能会对投资产生不利影响。过去的表现并不一定代表将来的结果。某些特定交易, 包括设计金融衍生工具的, 有产生重大风险的可能性, 因此并不适合所有的投资者。您还应认识到本文件中的建议并非为您量身定制。分析师并未考虑到您自身的财务情况, 如您的财务状况和风险偏好。因此您必须自行分析并在适用的情况下咨询自己的法律、税收、会计、金融和其他方面的专业顾问, 以期在投资之前评估该项建议是否适合于您。若由于使用本文件所载的材料而产生任何直接或间接的损失, HTISG及其董事、雇员或代理人对此均不承担任何责任。

除对本文内容承担责任的分析师除外, HTISG及我们的关联公司、高级管理人员、董事和雇员, 均可不时作为主事人就本文件所述的任何证券或衍生品持有长仓或短仓以及进行买卖。HTISG的销售员、交易员和其他专业人士均可向HTISG的相关客户和公司提供与本文件所述意见相反的口头或书面市场评论意见或交易策略。HTISG可做出与本文件所述建议或意见不一致的投资决策。但HTIRL没有义务来确保本文件的收件人了解到该等交易决定、思路或建议。

请访问海通国际网站 [www.equities.htisec.com](http://www.equities.htisec.com), 查阅更多有关海通国际为预防和避免利益冲突设立的组织 and 行政安排的内容信息。

**非美国分析师披露信息:** 本项研究首页上列明的海通国际分析师并未在FINRA进行注册或者取得相应的资格, 并且不受美国FINRA有关与本项研究目标公司进行沟通、公开露面和自营证券交易的第2241条规则之限制。



## IMPORTANT DISCLAIMER

**For research reports on non-Indian securities:** The research report is issued by Haitong International Research Limited (“HTIRL”), a wholly owned subsidiary of Haitong International Securities Group Limited (“HTISGL”) and a licensed corporation to carry on Type 4 regulated activity (advising on securities) for the purpose of the Securities and Futures Ordinance (Cap. 571) of Hong Kong, with the assistance of Haitong International (Japan) K.K. (“HTIJKK”), a wholly owned subsidiary of HTISGL and which is regulated as an Investment Adviser by the Kanto Finance Bureau of Japan.

**For research reports on Indian securities:** The research report is issued by Haitong Securities India Private Limited (“HSIPL”), an Indian company and a Securities and Exchange Board of India (“SEBI”) registered Stock Broker, Merchant Banker and Research Analyst that, inter alia, produces and distributes research reports covering listed entities on the BSE Limited (“BSE”) and the National Stock Exchange of India Limited (“NSE”) (collectively referred to as “Indian Exchanges”). HSIPL was acquired and became part of the Haitong International Securities Group of Companies (“HTISG”) on 22 December 2016.

All the research reports are globally branded under the name Haitong International and approved for distribution by Haitong International Securities Company Limited (“HTISCL”) and/or any other members within HTISG in their respective jurisdictions.

The information and opinions contained in this research report have been compiled or arrived at from sources believed to be reliable and in good faith but no representation or warranty, express or implied, is made by HTIRL, HTISCL, HSIPL, HTIJKK or any other members within HTISG from which this research report may be received, as to their accuracy, completeness or correctness. All opinions expressed herein are as of the date of this research report and are subject to change without notice. This research report is for information purpose only. Descriptions of any companies or their securities mentioned herein are not intended to be complete and this research report is not, and should not be construed expressly or impliedly as, an offer to buy or sell securities. The securities referred to in this research report may not be eligible for purchase or sale in some jurisdictions. If an investment product is denominated in a currency other than an investor's home currency, a change in exchange rates may adversely affect the investment. Past performance is not necessarily indicative of future results. Certain transactions, including those involving derivatives, give rise to substantial risk and are not suitable for all investors. You should also bear in mind that recommendations in this research report are not tailor-made for you. The analyst has not taken into account your unique financial circumstances, such as your financial situation and risk appetite. You must, therefore, analyze and should, where applicable, consult your own legal, tax, accounting, financial and other professional advisers to evaluate whether the recommendations suits you before investment. Neither HTISG nor any of its directors, employees or agents accepts any liability whatsoever for any direct or consequential loss arising from any use of the materials contained in this research report.

HTISG and our affiliates, officers, directors, and employees, excluding the analysts responsible for the content of this document, will from time to time have long or short positions in, act as principal in, and buy or sell, the securities or derivatives, if any, referred to in this research report. Sales, traders, and other professionals of HTISG may provide oral or written market commentary or trading strategies to the relevant clients and the companies within HTISG that reflect opinions that are contrary to the opinions expressed in this research report. HTISG may make investment decisions that are inconsistent with the recommendations or views expressed in this research report. HTI is under no obligation to ensure that such other trading decisions, ideas or recommendations are brought to the attention of any recipient of this research report.

Please refer to HTI's website [www.equities.htisec.com](http://www.equities.htisec.com) for further information on HTI's organizational and administrative arrangements set up for the prevention and avoidance of conflicts of interest with respect to Research.

**Non U.S. Analyst Disclosure:** The HTI analyst(s) listed on the cover of this Research is (are) not registered or qualified as a research analyst with FINRA and are not subject to U.S. FINRA Rule 2241 restrictions on communications with companies that are the subject of the Research; public appearances; and trading securities by a research analyst.

## 分发和地区通知:

除非下文另有规定，否则任何希望讨论本报告或者就本项研究中讨论的任何证券进行任何交易的收件人均应联系其所在国家或地区的海通国际销售人员。

**香港投资者的通知事项:** 海通国际证券股份有限公司(“HTISCL”)负责分发该研究报告，HTISCL是在香港有权实施第1类受规管活动（从事证券交易）的持牌公司。该研究报告并不构成《证券及期货条例》（香港法例第571章）（以下简称“SFO”）所界定的要约邀请，证券要约或公众要约。本研究报告仅提供给SFO所界定的“专业投资者”。本研究报告未经过证券及期货事务监察委员会的审查。您不应仅根据本研究报告中所载的信息做出投资决定。本研究报告的收件人就研究报告中产生或与之相关的任何事宜请联系HTISCL销售人员。

**美国投资者的通知事项:** 本研究报告由HTIRL, HSIPL或HTIJKK编写。HTIRL, HSIPL, HTIJKK以及任何非HTISG美国联营公司，均未在美国注册，因此不受美国关于研究报告编制和研究分析人员独立性规定的约束。本研究报告提供给依照1934年“美国证券交易法”第15a-6条规定的豁免注册的「美国主要机构投资者」（“Major U.S. Institutional Investor”）和「机构投资者」（“U.S. Institutional Investors”）。在向美国机构投资者分发研究报告时，Haitong International Securities (USA) Inc.（“HTI USA”）将对报告的内容负责。任何收到本研究报告的美国投资者，希望根据本研究报告提供的信息进行任何证券或相关金融工具买卖的交易，只能通过HTI USA。HTI USA位于340 Madison Avenue, 12th Floor, New York, NY 10173，电话（212）351-6050。HTI USA是在美国于U.S. Securities and Exchange Commission（“SEC”）注册的经纪商，也是Financial Industry Regulatory Authority, Inc.（“FINRA”）的成员。HTIUSA不负责编写本研究报告，也不负责其中包含的分析。在任何情况下，收到本研究报告的任何美国投资者，不得直接与分析师直接联系，也不得通过HSIPL, HTIRL或HTIJKK直接进行买卖证券或相关金融工具的交易。本研究报告中出现的HSIPL, HTIRL或HTIJKK分析师没有注册或具备FINRA的研究分析师资格，因此可能不受FINRA第2241条规定的与目标公司的交流，公开露面 and 分析师账户持有的交易证券等限制。投资本研究报告中讨论的任何非美国证券或相关金融工具（包括ADR）可能存在一定风险。非美国发行的证券可能没有注册，或不受美国法规的约束。有关非美国证券或相关金融工具的信息可能有限制。外国公司可能不受审计和汇报的标准以及与美国境内生效相符的监管要求。本研究报告中以美元以外的其他货币计价的任何证券或相关金融工具的投资或收益的价值受汇率波动的影响，可能对该等证券或相关金融工具的价值或收入产生正面或负面影响。美国收件人的所有问询请联系：

Haitong International Securities (USA) Inc.  
340 Madison Avenue, 12th Floor  
New York, NY 10173  
联系人电话: (212) 351 6050

## DISTRIBUTION AND REGIONAL NOTICES

Except as otherwise indicated below, any Recipient wishing to discuss this research report or effect any transaction in any security discussed in HTI's research should contact the Haitong International salesperson in their own country or region.

**Notice to Hong Kong investors:** The research report is distributed by Haitong International Securities Company Limited ("HTISCL"), which is a licensed corporation to carry on Type 1 regulated activity (dealing in securities) in Hong Kong. This research report does not constitute a solicitation or an offer of securities or an invitation to the public within the meaning of the SFO. This research report is only to be circulated to "Professional Investors" as defined in the SFO. This research report has not been reviewed by the Securities and Futures Commission. You should not make investment decisions solely on the basis of the information contained in this research report. Recipients of this research report are to contact HTISCL salespersons in respect of any matters arising from, or in connection with, the research report.

**Notice to U.S. investors:** As described above, this research report was prepared by HTIRL, HSIPL or HTIJKK. Neither HTIRL, HSIPL, HTIJKK, nor any of the non U.S. HTISG affiliates is registered in the United States and, therefore, is not subject to U.S. rules regarding the preparation of research reports and the independence of research analysts. This research report is provided for distribution to "major U.S. institutional investors" and "U.S. institutional investors" in reliance on the exemption from registration provided by Rule 15a-6 of the U.S. Securities Exchange Act of 1934, as amended. When distributing research reports to "U.S. institutional investors," HTI USA will accept the responsibilities for the content of the reports. Any U.S. recipient of this research report wishing to effect any transaction to buy or sell securities or related financial instruments based on the information provided in this research report should do so only through Haitong International Securities (USA) Inc. ("HTI USA"), located at 340 Madison Avenue, 12th Floor, New York, NY 10173, USA; telephone (212) 351 6050. HTI USA is a broker-dealer registered in the U.S. with the U.S. Securities and Exchange Commission (the "SEC") and a member of the Financial Industry Regulatory Authority, Inc. ("FINRA"). HTI USA is not responsible for the preparation of this research report nor for the analysis contained therein. Under no circumstances should any U.S. recipient of this research report contact the analyst directly or effect any transaction to buy or sell securities or related financial instruments directly through HSIPL, HTIRL or HTIJKK. The HSIPL, HTIRL or HTIJKK analyst(s) whose name appears in this research report is not registered or qualified as a research analyst with FINRA and, therefore, may not be subject to FINRA Rule 2241 restrictions on communications with a subject company, public appearances and trading securities held by a research analyst account. Investing in any non-U.S. securities or related financial instruments (including ADRs) discussed in this research report may present certain risks. The securities of non-U.S. issuers may not be registered with, or be subject to U.S. regulations. Information on such non-U.S. securities or related financial instruments may be limited. Foreign companies may not be subject to audit and reporting standards and regulatory requirements comparable to those in effect within the U.S. The value of any investment or income from any securities or related financial instruments discussed in this research report denominated in a currency other than U.S. dollars is subject to exchange rate fluctuations that may have a positive or adverse effect on the value of or income from such securities or related financial instruments. All inquiries by U.S. recipients should be directed to:

Haitong International Securities (USA) Inc.  
340 Madison Avenue, 12<sup>th</sup> Floor  
New York, NY 10173  
Attn: Sales Desk at (212) 351 6050

**中华人民共和国的通知事项：**在中华人民共和国（下称“中国”，就本报告目的而言，不包括香港特别行政区、澳门特别行政区和台湾）只有根据适用的中国法律法规而收到该材料的人员方可使用该材料。并且根据相关法律法规，该材料中的信息并不构成“在中国从事生产、经营活动”。本文件在中国并不构成相关证券的公共发售或认购。无论根据法律规定或其他任何规定，在取得中国政府所有的批准或许可之前，任何法人或自然人均不得直接或间接地购买本材料中的任何证券或任何实益权益。接收本文件的人员须遵守上述限制性规定。

**加拿大投资者的通知事项：**在任何情况下该等材料均不得被解释为在任何加拿大的司法管辖区内出售证券的要约或认购证券的要约邀请。本材料中所述证券在加拿大的任何要约或出售行为均只能在豁免向有关加拿大证券监管机构提交招股说明书的前提下由Haitong International Securities (USA) Inc.（“HTI USA”）予以实施，该公司是一家根据National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations（“NI 31-103”）的规定得到「国际交易商豁免」（“International Dealer Exemption”）的交易商，位于艾伯塔省、不列颠哥伦比亚省、安大略省和魁北克省。在加拿大，该等材料在任何情况下均不得被解释为任何证券的招股说明书、发行备忘录、广告或公开发售。加拿大的任何证券委员会或类似的监管机构均未审查或以任何方式批准该等材料、其中所载的信息或所述证券的优点，任何与此相反的声明即属违法。在收到该等材料时，每个加拿大的收件人均将被视为属于National Instrument 45-106 Prospectus Exemptions第1.1节或者Securities Act (Ontario)第73.3(1)节所规定的「认可投资者」（“Accredited Investor”），或者在适用情况下National Instrument 31-103第1.1节所规定的「许可投资者」（“Permitted Investor”）。

**新加坡投资者的通知事项：**本研究报告由Haitong International Securities (Singapore) Pte Ltd（“HTISSPL”）[公司注册编号201311400G] 于新加坡提供。HTISSPL是符合《财务顾问法》（第110章）（“FAA”）定义的豁免财务顾问，可（a）提供关于证券，集体投资计划的部分，交易所衍生品合约和场外衍生品合约的建议（b）发行或公布有关证券、交易所衍生品合约和场外衍生品合约的研究分析或研究报告。本研究报告仅提供给符合《证券及期货法》（第289章）第4A条项下规定的机构投资者。对于因本研究报告而产生的或与之相关的任何问题，本研究报告的收件人应通过以下信息与HTISSPL联系：

Haitong International Securities (Singapore) Pte. Ltd  
50 Raffles Place, #33-03 Singapore Land Tower, Singapore 048623  
电话: (65) 6536 1920



**日本投资者的通知事项：**本研究报告由海通国际证券有限公司所发布，旨在分发给从事投资管理的金融服务提供商或注册金融机构（根据日本金融机构和交易法（“FIEL”））第61（1）条，第17-11（1）条的执行及相关条款）。

**英国及欧盟投资者的通知事项：**本报告由从事投资顾问的Haitong International Securities Company Limited所发布，本报告只面向有投资相关经验的专业客户发布。任何投资或与本报告相关的投资行为只面对此类专业客户。没有投资经验或相关投资经验的客户不得依赖本报告。Haitong International Securities Company Limited的分支机构的净长期或短期金融权益可能超过本研究报告中提及的实体已发行股本总额的0.5%。特别提醒有些英文报告有可能此前已经通过中文或其它语言完成发布。

**澳大利亚投资者的通知事项：**Haitong International Securities (Singapore) Pte Ltd, Haitong International Securities Company Limited和Haitong International Securities (UK) Limited分别根据澳大利亚证券和投资委员会（以下简称“ASIC”）第03/1102、03/1103或03/1099号规章在澳大利亚分发本项研究，该等规章免除了根据2001年《公司法》在澳大利亚为批发客户提供金融服务时海通国际需持有澳大利亚金融服务许可的要求。ASIC的规章副本可在以下网站获取：[www.legislation.gov.au](http://www.legislation.gov.au)。海通国际提供的金融服务受外国法律法规规定的管制，该等法律与在澳大利亚所适用的法律存在差异。

**印度投资者的通知事项：**本报告由从事证券交易、投资银行及证券分析及受Securities and Exchange Board of India（“SEBI”）监管的Haitong Securities India Private Limited（“HTSIPL”）所发布，包括制作及发布涵盖BSE Limited（“BSE”）和National Stock Exchange of India Limited（“NSE”）（统称为「印度交易所」）研究报告。

本项研究仅供收件人使用，未经海通国际的书面同意不得予以复制和再次分发。

版权所有：海通国际证券集团有限公司2019年。保留所有权利。



**People's Republic of China (PRC):** In the PRC, the research report is directed for the sole use of those who receive the research report in accordance with the applicable PRC laws and regulations. Further, the information on the research report does not constitute "production and business activities in the PRC" under relevant PRC laws. This research report does not constitute a public offer of the security, whether by sale or subscription, in the PRC. Further, no legal or natural persons of the PRC may directly or indirectly purchase any of the security or any beneficial interest therein without obtaining all prior PRC government approvals or licenses that are required, whether statutorily or otherwise. Persons who come into possession of this research are required to observe these restrictions.

**Notice to Canadian Investors:** Under no circumstances is this research report to be construed as an offer to sell securities or as a solicitation of an offer to buy securities in any jurisdiction of Canada. Any offer or sale of the securities described herein in Canada will be made only under an exemption from the requirements to file a prospectus with the relevant Canadian securities regulators and only by Haitong International Securities (USA) Inc., a dealer relying on the "international dealer exemption" under National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations ("NI 31-103") in Alberta, British Columbia, Ontario and Quebec. This research report is not, and under no circumstances should be construed as, a prospectus, an offering memorandum, an advertisement or a public offering of any securities in Canada. No securities commission or similar regulatory authority in Canada has reviewed or in any way passed upon this research report, the information contained herein or the merits of the securities described herein and any representation to the contrary is an offence. Upon receipt of this research report, each Canadian recipient will be deemed to have represented that the investor is an "accredited investor" as such term is defined in section 1.1 of National Instrument 45-106 Prospectus Exemptions or, in Ontario, in section 73.3(1) of the Securities Act (Ontario), as applicable, and a "permitted client" as such term is defined in section 1.1 of NI 31-103, respectively.

**Notice to Singapore investors:** This research report is provided in Singapore by or through Haitong International Securities (Singapore) Pte Ltd ("HTISSPL") [Co Reg No 201311400G. HTISSPL is an Exempt Financial Adviser under the Financial Advisers Act (Cap. 110) ("FAA") to (a) advise on securities, units in a collective investment scheme, exchange-traded derivatives contracts and over-the-counter derivatives contracts and (b) issue or promulgate research analyses or research reports on securities, exchange-traded derivatives contracts and over-the-counter derivatives contracts. This research report is only provided to institutional investors, within the meaning of Section 4A of the Securities and Futures Act (Cap. 289). Recipients of this research report are to contact HTISSPL via the details below in respect of any matters arising from, or in connection with, the research report:

Haitong International Securities (Singapore) Pte. Ltd.  
10 Collyer Quay, #19-01 - #19-05 Ocean Financial Centre, Singapore 049315  
Telephone: (65) 6536 1920

**Notice to Japanese investors:** This research report is distributed by Haitong International Securities Company Limited and intended to be distributed to Financial Services Providers or Registered Financial Institutions engaged in investment management (as defined in the Japan Financial Instruments and Exchange Act ("FIEL") Art. 61(1), Order for Enforcement of FIEL Art. 17-11(1), and related articles).

**Notice to UK and European Union investors:** This research report is distributed by Haitong International Securities Company Limited. This research is directed at persons having professional experience in matters relating to investments. Any investment or investment activity to which this research relates is available only to such persons or will be engaged in only with such persons. Persons who do not have professional experience in matters relating to investments should not rely on this research. Haitong International Securities Company Limited's affiliates may have a net long or short financial interest in excess of 0.5% of the total issued share capital of the entities mentioned in this research report. Please be aware that any report in English may have been published previously in Chinese or another language.

**Notice to Australian investors:** The research report is distributed in Australia by Haitong International Securities (Singapore) Pte Ltd, Haitong International Securities Company Limited, and Haitong International Securities (UK) Limited in reliance on ASIC Class Order 03/1102, 03/1103 or 03/1099, respectively, which exempts those HTISG entities from the requirement to hold an Australian financial services license under the Corporations Act 2001 in respect of the financial services it provides to wholesale clients in Australia. A copy of the ASIC Class Orders may be obtained at the following website, [www.legislation.gov.au](http://www.legislation.gov.au). Financial services provided by Haitong International Securities (Singapore) Pte Ltd, Haitong International Securities Company Limited, and Haitong International Securities (UK) Limited are regulated under foreign laws and regulatory requirements, which are different from the laws applying in Australia.

**Notice to Indian investors:** The research report is distributed by Haitong Securities India Private Limited ("HSIPL"), an Indian company and a Securities and Exchange Board of India ("SEBI") registered Stock Broker, Merchant Banker and Research Analyst that, inter alia, produces and distributes research reports covering listed entities on the BSE Limited ("BSE") and the National Stock Exchange of India Limited ("NSE") (collectively referred to as "Indian Exchanges").

This research report is intended for the recipients only and may not be reproduced or redistributed without the written consent of an authorized signatory of HTISG.

Copyright: Haitong International Securities Group Limited 2019. All rights reserved.

<http://equities.htisec.com/x/legal.html>