

BofA Securities Equity Client Flow Trends

Passive inflows, first single stock outflows since Aug.

ETF led inflows

- 12th week of equity inflows: Last week (S&P 500 -2.4%), clients were net buyers
 of US equities (\$1.0B) for a 12th straight week. Inflows were in ETFs while single
 stocks saw their first week of outflows since Aug. Clients sold stocks in all three
 size segments.
- Hedge Fund (HF) and retail clients led inflows, while institutional clients' sales
 were the largest since July. Retail clients have been net buyers for five straight
 weeks and HF clients for four straight weeks.
- Buybacks still tepid: Corporate client buybacks accelerated last week but have been tracking below seasonal trends every week since May. YTD, corp. client buybacks as a percentage of S&P 500 mkt. cap (0.15%) are below '22 highs (0.19%) at this time.

Cons. Disc. led outflows; Real Estate continued inflows

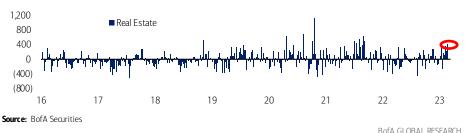
- **Clients sold 7 of the 11 GICS sectors**, led by Cons. Disc. (largest outflow since July) and Industrials.
- **Real Estate led inflows** (5th consecutive week of inflows and largest since May 2022); we recently moved Real Estate to overweight in our <u>Sector Note</u>.
- Cyclicals saw large outflows despite seeing more positive flows than defensive sectors most weeks since early Aug. We became more positive on cyclicals this spring, and our sector views have a cyclical tilt.

ETFs: inflows into SMID/Broad Market & Value

- Continued inflows into SMID/Broad Market & Value: Clients bought Value ETFs and SMID caps, while Large, Growth and Blend ETFs saw outflows. Value saw inflows for a 17th consecutive week and Growth saw outflows for the first time in 11 weeks.
- Most sector ETFs saw outflows, led by Utilities ETFs; Energy ETFs led inflows.

Exhibit 3: Weekly Real Estate inflows largest since May 2022

Weekly Real Estate inflows/outflows



Trading ideas and investment strategies discussed herein may give rise to significant risk and are not suitable for all investors. Investors should have experience in relevant markets and the financial resources to absorb any losses arising from applying these ideas or strategies.

Bof A Securities does and seeks to do business with issuers covered in its research reports. As a result, investors should be aware that the firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision.

Refer to important disclosures on page 17 to 19.

23 October 2023

Equity and Quant Strategy United States

Data Analytics



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Exhibit 1: Institutional clients are the biggest net sellers post-crisis

Cumulative flows (\$ bn) by client type, January 2008-present

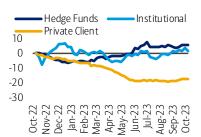


Source: BofA Securities

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Exhibit 2: Hedge funds are the biggest net buyers in the past 12 months

L12m cumulative flows (\$ bn) by client type, October 2022-present



Source: BofA Securities

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For more details on BofA Securities client flows and a complete methodology behind the data in this report, please see pg.15-16. Note that flows span Monday-Friday of the previous week

BofA Equity Client Flow Trends

This weekly product provides an aggregated view of BofA client trading flows into US stocks executed by the firm's cash equities business. By aggregating flows across many execution platforms and trading desks, we provide an overview of what sectors and market cap size segments are being bought or sold, and what type of client is buying or selling. The client types we include are hedge funds, institutional clients and private clients. The sectors are the 11 GICS (global industry classification standard) sectors, as well as ETFs, and the market caps are large, mid and small. Our data history spans January 2008-present. This product is not meant to be predictive of the market but aims to provide a holistic view of BofA client trading flows. For more details, see the Methodology section.

Exhibit 4: Rolling four-week avg. flows positive since mid-Jan.

BofA client total net buys of US equities: four-week moving avg (\$ mn) and S&P 500, 2008-present



Source: BofA Securities, FactSet

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Exhibit 5: BofA Securities equity client flows by year

Cumulative net buying (selling) in \$mn by sector, client type, size segment and overall

| Sector | 2023 | 2022 | 2021 | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 | 2013 | 2012 | 2011 | 2010 | 2009 | 2008 |
|------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Consumer Discretionary | 2,877 | 4,221 | (8,511) | (8,129) | (757) | 336 | (14,600) | (6,584) | (3,137) | (4,427) | (6,271) | (3,520) | 2,180 | (1,470) | (660) | (5,297) |
| Consumer Staples | 977 | 617 | (5,212) | (3,101) | (1,046) | (884) | (4,976) | (1,997) | 1,072 | (5,228) | (3,895) | (6,731) | (4,426) | (3,412) | (3,260) | (7,334) |
| ETFs | 8,095 | 36,406 | 77,404 | 36,169 | 24,435 | 26,836 | 57,133 | 23,551 | 28,158 | 34,363 | 12,139 | 18,684 | 6,597 | 8,432 | 5,702 | 7,935 |
| Energy | (840) | 1,955 | 3,831 | 3,591 | 3,987 | (1,615) | (5,712) | (5,054) | (1,230) | (4,074) | (3,288) | (5,323) | (933) | (4,290) | (1,970) | (8,694) |
| Financials | 5,877 | (442) | 11,845 | 1,929 | 20,159 | 14,650 | 155 | (4,726) | (858) | (5,408) | (4,983) | (2,248) | (1,730) | (4,734) | 4,784 | (2,257) |
| Health Care | 6,980 | 2,289 | (8,559) | (2,705) | 1,909 | 6,755 | (12,796) | (12,525) | (5,490) | (5,517) | (4,101) | (829) | 2,243 | (3,991) | (1,888) | (6,115) |
| In dustrials | (5,847) | (2,979) | (8,188) | (8,475) | (971) | 519 | (10,502) | (10,507) | (3,036) | 786 | (2,110) | (1,699) | (653) | (1,576) | (91) | (6,736) |
| Information Technology | 16,555 | 21,852 | (2,796) | (2,421) | 15,441 | 7,271 | (6,603) | (8,518) | 1,193 | (3,128) | (2,703) | (1,217) | 2,730 | 1,475 | (4,355) | (6,177) |
| Materials | 1,555 | 4,502 | 251 | (1,084) | 3,319 | 387 | (2,678) | (2,418) | (3,479) | (1,229) | (3,664) | (3,045) | (1,783) | (1,270) | (413) | (1,068) |
| Real Estate | 2,055 | 3,156 | 2,750 | 2,939 | (3,216) | (1,624) | (4,155) | (366) | | | | | | | | |
| Communication Services | 10,185 | 5,867 | (11,418) | (904) | 1,974 | (2,509) | (806) | 1,028 | 596 | 3,223 | 1,743 | (204) | 690 | (517) | 365 | (273) |
| Utilities | (767) | (642) | (312) | 2,066 | (2,569) | (1,036) | (2,968) | (942) | 156 | (636) | 425 | (808) | 732 | (893) | (461) | (1,622) |
| Client | | | | | | | | | | | | | | | | |
| Hedge Funds | 12,113 | (26,688) | (18,609) | (7,646) | 363 | (7,297) | (2,164) | (2,957) | (2,434) | (4,683) | (3,417) | (2,085) | (5,695) | (4,456) | 6,418 | (1,223) |
| ex. ETFs | 5,169 | (26,293) | (39,181) | (12,160) | (4,722) | (2,989) | (3,852) | (4,894) | (5,944) | (8,933) | (822) | (2,723) | (3,590) | (3,607) | 7,568 | (1,556) |
| Institutional | (5,518) | 6,655 | (18,133) | (286) | 758 | (17,246) | (52,717) | (49,137) | (26,153) | (18,235) | (32,792) | 2,668 | 1,493 | (13,755) | 6,088 | (15,150) |
| ex. ETFs | 4,461 | 5,460 | (26,187) | (9,025) | (9,852) | (11,255) | (60,771) | (52,225) | (19,309) | (25,640) | (29,542) | (4,693) | 1,725 | (15,002) | 7,823 | (16,713) |
| Retail | (13,295) | 16,086 | (1,287) | (10,737) | (28,106) | (1,462) | 7,787 | (13,983) | 1,764 | (13,205) | (18,800) | (39,973) | (23,049) | (25,999) | (23,361) | (21,266) |
| ex. ETFs | (24,425) | (19,521) | (50,065) | (33,652) | (36,846) | (38,596) | (39,604) | (34,366) | (29,728) | (35,914) | (34,997) | (50,657) | (31,983) | (34,033) | (31,949) | (27,305) |
| Corporates | 54,447 | 80,823 | 89,112 | 38,544 | 89,721 | 75,091 | 38,587 | 37,019 | 40,767 | 44,850 | 39,401 | 32,449 | 32,897 | 31,964 | 8,609 | N/A |
| Size | | | | | | | | | | | | | | | | |
| Large cap | 52,508 | 45,249 | 45,701 | 27,060 | 59,743 | 46,487 | (4,151) | (20,314) | 665 | 4,815 | (16,887) | (10,081) | 4,480 | (9,505) | (3,755) | (33,155) |
| ex. ETFs | 44,595 | 30,321 | (12,266) | 1,056 | 46,762 | 33,004 | (45,223) | (35,414) | (9,903) | (13,568) | (15,814) | (17,812) | 5,284 | (10,483) | (3,820) | (34,028) |
| Mid cap | (8,248) | 23,919 | 5,571 | (6,377) | 1,842 | 4,098 | (2,004) | (6,543) | 9,329 | 3,991 | 2,151 | 3,050 | 237 | (2,845) | 301 | (3,074) |
| ex. ETFs | (6,451) | 10,635 | (6,663) | (10,557) | (4,856) | (4,542) | (12,476) | (11,340) | (1,441) | (6,010) | (4,742) | (3,851) | (3,819) | (6,363) | (1,159) | (7,356) |
| Small cap | 1,215 | 2,349 | (188) | (806) | 1,152 | (1,498) | (2,351) | (2,202) | 3,950 | (80) | (872) | 90 | 928 | 103 | 1,207 | (1,410) |
| ex. ETFs | (297) | (2,598) | (7,391) | (6,793) | (3,605) | (6,211) | (7,941) | (5,856) | (2,870) | (6,060) | (5,402) | (3,961) | (2,416) | (3,830) | (2,970) | (4,187) |
| Untagged flow | 273 | (8,206) | (41,521) | (14,367) | (13,155) | (1,984) | 11,422 | (4,215) | (2,331) | (3,345) | (4,427) | (979) | (1,154) | 586 | (511) | (13,179) |
| Total | 47,974 | 68,597 | 9,563 | 5,508 | 49,510 | 47,103 | 2,916 | (33,274) | 11,613 | 5,380 | (21,136) | (7,919) | 4,492 | (11,659) | (2,758) | (50,817) |
| Single stocks only (ex-ETFs) | 39,606 | 40,396 | (26,320) | (16,294) | 38,230 | 22,251 | (65,640) | (52,610) | (14,214) | (25,638) | (28,848) | (25,625) | (951) | (20,677) | (7,949) | (45,573) |
| Total ex. corporate buybacks | (6,472) | (12,227) | (79,549) | (33,036) | (40,211) | (27,988) | (35,672) | (70,293) | (29,154) | (39,469) | (60,537) | (40,368) | (28,405) | (43,624) | (11,366) | N/A |

Source: BofA Securities. Note: Data on Real Estate since 8/31/16. Fins. includes Real Estate prior to 8/31/16. Comm, Svcs. based on new sector from 10/1/18-present & previous Telecom. Svcs. prior to 10/1/18

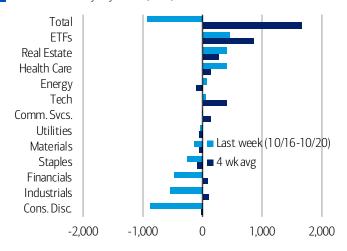
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Weekly flows by client, sector, & size

Exhibit 6: By sector, ETFs saw biggest inflows & Cons. Disc. saw biggest outflows

BofA client net buys by sector (\$ mn)

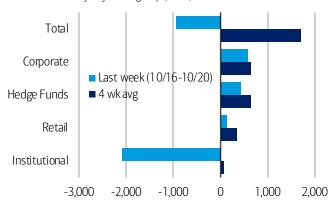


Source: BofA Securities

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Exhibit 8: By clients, Corporate clients led inflows and Institutional clients led outflows

BofA client net buys by client group (\$ mn)

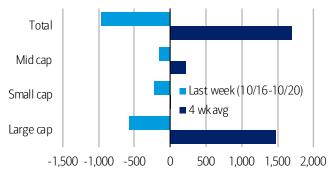


Source: BofA Securities

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Exhibit 10: All sizes saw outflows led by Large caps

BofA client net buys by size segment (\$ mn)



Source: BofA Securities

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Exhibit 7: Weekly net buying (selling) by the 11 GICS sectors (single stocks) and ETFs overall

Last four weeks and rolling average trends, \$mn

| | Last wk | | | | | | |
|----------------------|---------|-------|-------|-------|-------|-------|-------|
| _ | (10/16/ | 10/9/ | 10/2/ | 9/25/ | 4 wk. | 12 wk | 52 wk |
| Sector | 23) | 23 | 23 | 23 | avg. | avg | avg |
| Cons. Disc. | -875 | 141 | 244 | 366 | -31 | 35 | 74 |
| Cons. Staples | -265 | -179 | -101 | 165 | -95 | 28 | 26 |
| Energy | 73 | -64 | -300 | -153 | -111 | -69 | -32 |
| Financials | -483 | 565 | 74 | 204 | 90 | 195 | 96 |
| Health Care | 409 | 36 | 147 | -16 | 144 | 124 | 133 |
| Industrials | -545 | -10 | 301 | 663 | 102 | -12 | -167 |
| Tech | 59 | 787 | 583 | 242 | 418 | 306 | 404 |
| Materials | -134 | -149 | -137 | 190 | -58 | -3 | 27 |
| Real Estate | 413 | 218 | 365 | 106 | 275 | 108 | 16 |
| Comm. Svcs. | -6 | -61 | 190 | 413 | 134 | 245 | 168 |
| Utilities | -37 | 197 | -609 | 217 | -58 | -28 | -19 |
| ETFs | 454 | 920 | 1619 | 462 | 864 | 640 | 396 |
| Total | -938 | 2400 | 2376 | 2860 | 1675 | 1,569 | 1,123 |
| Total ex. ETFs | -1392 | 1480 | 757 | 2398 | 811 | 929 | 727 |
| Total incl. untagged | | | | | | | |
| flows | 975 | 1775 | 3125 | 2440 | 2079 | 2,192 | 1,056 |

Source: BofA Securities; Note: ETFs classified as a 12th "sector" and broken out further on the subsequent page. Real Estate GICS sector was broken out from Fins. beginning 8/31/16. Comm. Svcs. flows based on new sector from 10/1/18 onward & Telecom prior to 10/1/18.

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Exhibit 9: Weekly net buying (selling) by client type

Last four weeks and rolling average trends, \$mn

| Client | Last wk (10/16/ 23) | 10/9/ 23 | 10/2/ 23 | 9/25/2 3 | 4 wk. avg. | 12 wk avg | 52 wk avg |
|----------------------|---------------------------|-------------|-------------|-------------|---------------|--------------|--------------|
| Hedge Funds | 436 | 153 | 1333 | 643 | 641 | 140 | 116 |
| ex. ETFs | 630 | 135 | 979 | 392 | 534 | 83 | -34 |
| Institutional | -2085 | 1479 | -236 | 1173 | 83 | 353 | 25 |
| ex. ETFs | -1940 | 1153 | -156 | 1636 | 173 | 481 | 181 |
| Private Client | 127 | 237 | 731 | 266 | 340 | 120 | -330 |
| ex. ETFs | -666 | -339 | -613 | -528 | -536 | -607 | -735 |
| Corporates | 585 | 532 | 548 | 899 | 641 | 972 | 1,316 |
| Total | -938 | 2400 | 2376 | 2981 | 1705 | 1,585 | 1,127 |
| Total ex. ETFs | -1392 | 1480 | 757 | 2398 | 811 | 929 | 727 |
| Total incl. untagged | | | | | | | |
| flows | 975 | 1775 | 3125 | 2440 | 2079 | 2192 | 1056 |

Source: BofA Securities

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Exhibit 11: Weekly net buying (selling) by size segment

Last four weeks and rolling average trends, \$mn

| Market Cap | Last wk (10/16/ 23) | 10/9/ 23 | 10/2 /23 | 9/25/ 23 | 4 wk. avg. | 12 wk avg | 52 wk avg |
|----------------------|---------------------------|-------------|-------------|-------------|---------------|--------------|--------------|
| Large cap | -583 | 1327 | 2452 | 2694 | 1472 | 1,504 | 1,252 |
| ex. ETFs | -1327 | 1015 | 1163 | 2073 | 731 | 1020 | 892 |
| Mid cap | -154 | 670 | -92 | 479 | 226 | 32 | -202 |
| ex. ETFs | -125 | 349 | -400 | 389 | 53 | -118 | -181 |
| Small cap | -226 | 403 | 15 | -192 | 0 | 56 | 26 |
| ex. ETFs | 35 | 117 | -6 | -54 | 23 | 41 | -26 |
| Total | -962 | 2400 | 2376 | 2981 | 1699 | 1,592 | 1,076 |
| Total ex. ETFs | -1416 | 1480 | 757 | 2408 | 807 | 929 | 727 |
| Total incl. untagged | | | | | | | |
| flows | 975 | 1775 | 3125 | 2440 | 2079 | 2192 | 1056 |

Source: BofA Securities

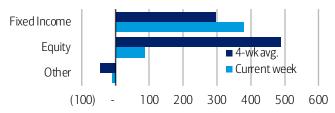


ETF flow color

We provide additional color on ETF net buys¹, with a breakout of this flow available since the start of 2017. We use Bloomberg Fund Classifications to manually tag/group ETFs by asset class focus, sector, strategy, and market cap; see Appendix for details. The majority of ETF flows in a given week are equity ETF flows (about 95% on avg. since '17) and ETFs are included as a category of equity flows in the standard charts beginning on pg 2. See pg. 5 for four-week avg. and cumulative ETF flows by sector.

Exhibit 12: Clients bought Fixed Income/Equity ETFs

ETF net buys by asset class (\$ mn)

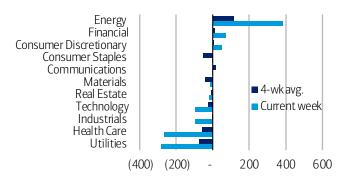


Source: BofA Securities. Note: Other includes Commodity, Specialty, Alternative, Mixed Allocation

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Exhibit 14: ETFs most positive in Energy and negative in Utilities

Equity ETF net buys by sector(\$mn)

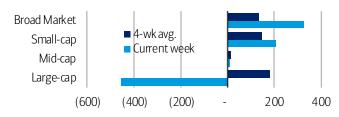


Source: BofA Securities

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Exhibit 13: By size, Broad Market ETFs led inflows and Large cap ETFs led outflows

Equity ETF net buys by market capitalization (\$ mn)

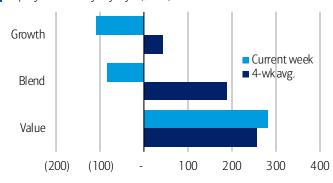


Source: BofA Securities

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Exhibit 15: By style, Value ETFs led inflows and Growth ETFs led outflows

Equity ETF net buys by style (\$ mn)



Source: BofA Securities

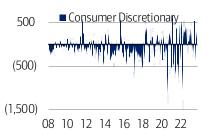


¹ Note that net buys (sales) of ETFs by our clients presented throughout this report do not include creation of new ETF shares by BofA—these flows would show up as single stock net buys (sales) in the underlying sectors of the stocks that comprise the ETF.

Rolling four-week average trends by sector (single stock)

Exhibit 16: Cons Disc.: flows flip negative

4 week avg. flows (\$ mn)

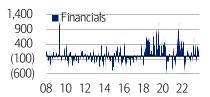


Source: BofA Securities

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Exhibit 19: Financials: recent inflows

4 week avg. flows (\$ mn)

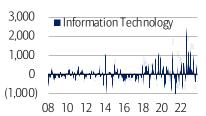


Source: BofA Securities

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Exhibit 22: Tech: recent inflows

4 week avg. flows (\$ mn)

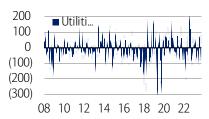


Source: BofA Securities

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Exhibit 25: Utilities: recent outflows

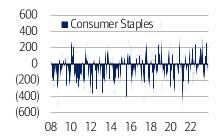
4 week avg. flows (\$ mn)



Source: BofA Securities

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Exhibit 17: Staples: flows flip negative 4 week avg. flows (\$mn)

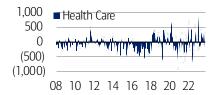


Source: BofA Securities

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Exhibit 20: Health Care: recent inflows

4 week avg. flows (\$ mn)

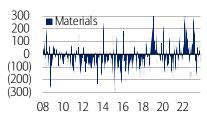


Source: BofA Securities

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Exhibit 23: Materials: flows flip negative

4 week avg. flows (\$ mn)



Source: BofA Securities

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Exhibit 26: ETFs: recent inflows

4 week avg. flows (\$ mn)

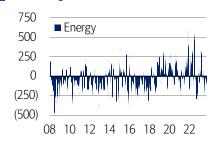


Source: BofA Securities

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Exhibit 18: Energy: recent outflows

4 week avg. flows (\$ mn)



Source: BofA Securities

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Exhibit 21: Industrials: recent inflows

4 week avg. flows (\$ mn)



Source: BofA Securities

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Exhibit 24: Comm. Svcs.: recent inflows

4 week avg. flows (\$ mn)



Source: BofA Securities

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Exhibit 27: Real Estate: recent inflows

4 week avg. flows (\$mn)



Source: BofA Securities



Rolling four-week average trends by client type

Exhibit 28: Hedge Funds: recent inflows

Net buys (4 week avg, \$ mn)

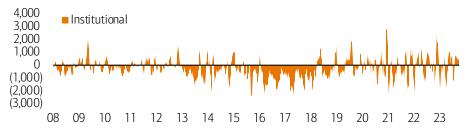


Source: BofA Securities

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Exhibit 29: Institutional clients: recent inflows

Net buys (4 week avg, \$ mn)

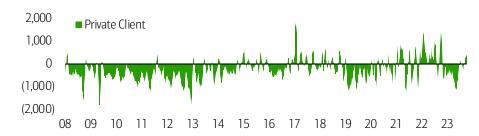


Source: BofA Securities

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Exhibit 30: Private clients: recent inflows

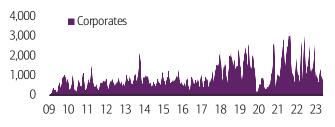
Net buys (4 week avg, \$ mn)



Source: BofA Securities

Exhibit 31: Buybacks by corp. clients decelerated last week

Corporate clients (4 week avg, \$ mn)

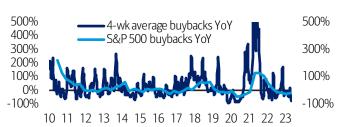


Source: BofA Securities

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Exhibit 32: Corp. client buybacks below S&P 500 buybacks trend BofA corporate clients' 4 week avg. buybacks (YoY % chg) vs. S&P 500 total quarterly buybacks (YoY % chg), since 2010



Source: S&P, BofA Securities



Rolling four-week average trends by market cap

Exhibit 33: Large caps: recent inflows

Large cap net buys (4 week avg, \$ mn)

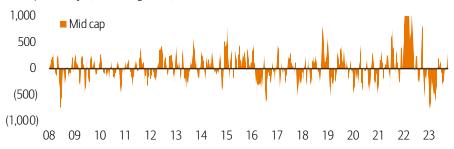


Source: BofA Securities

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Exhibit 34: Mid caps: recent inflows

Mid caps net buys (4 week avg, \$ mn)

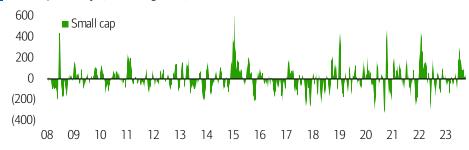


Source: BofA Securities

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Exhibit 35: Small caps: inflows since June 2023

Small caps net buys (4 week avg, \$ mn)

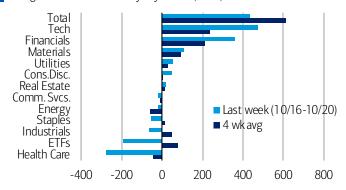


Source: BofA Securities

Sector & size flows by client type last week

Exhibit 36: Hedge Funds bought most sectors, led by Tech

Hedge funds clients net buys by sector (\$ mn)

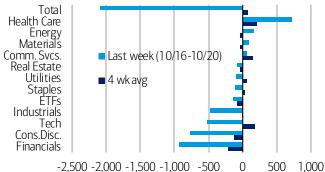


Source: BofA Securities

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Exhibit 38: Institutional clients sold most sectors led by Financials

Institutional clients net buys by sector (\$ mn)

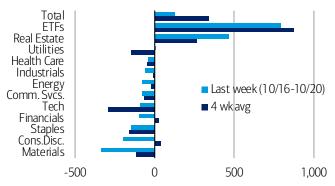


Source: BofA Securities

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Exhibit 40: Private clients were mainly buyers of ETFs

Private clients net buys by sector (\$ mn)



Source: BofA Securities

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Exhibit 37: Hedge Funds were buyers of all clients led by Mid caps Hedge fund net buys by market cap(\$ mn)



Source: BofA Securities

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Exhibit 39: Institutional clients sold all sizes led by Large caps

Institutional clients net buys by market cap (\$ mn)

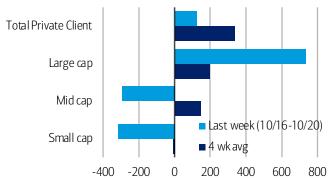


Source: BofA Securities

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Exhibit 41: Private clients bought Large caps and sold SMID caps

Private client net buys by market cap (\$ mn)



Source: BofA Securities



ETF flows: z-scores (3m and 1yr)

Exhibit 42: Weekly Client ETF Flows: z-scores as of latest week

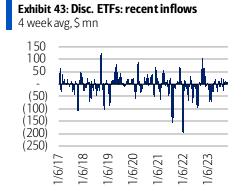
Based on 1) current week's z-score vs. the past 3 months (3m column), and 2) current 4-week moving average z-score vs. the past year (52 weeks) of 4-week moving averages (1yr column)

| | Total | | Hedge Fund Clients | | Institutional Clients | | Private Clients | |
|------------------------|-------|-------|--------------------|-------|-----------------------|-------|-----------------|-------|
| | 3m | 1y | 3m | 1y | 3m | 1y | 3m | 1y |
| Total | -0.47 | 0.47 | -0.86 | -0.27 | -0.11 | 0.22 | 0.34 | 0.67 |
| Asset Class | | | | | | | | |
| Equity | -1.15 | 0.44 | -1.16 | -0.64 | -0.40 | -0.15 | 0.24 | 1.05 |
| Fixed Income | 1.13 | 0.29 | 0.93 | 1.20 | 0.57 | 0.76 | 0.45 | -0.55 |
| Style | | | | | | | | |
| Blend | -0.75 | 0.33 | -1.23 | -0.40 | -0.67 | -0.13 | 1.92 | 0.99 |
| Growth | -1.84 | 0.18 | -0.06 | -0.56 | 0.62 | -0.31 | -2.75 | 0.59 |
| Value | 1.16 | 0.94 | 0.82 | 1.93 | 0.42 | 0.25 | 1.06 | 0.91 |
| Sector | | | | | | | | |
| Consumer Discretionary | 1.05 | 0.74 | 0.05 | -0.13 | -0.73 | -0.15 | 2.95 | 1.56 |
| Consumer Staples | -0.03 | -1.73 | -0.74 | -0.13 | -0.26 | 0.08 | 0.76 | -2.76 |
| Energy | 2.58 | 3.45 | -1.45 | 0.38 | 0.35 | 0.27 | -0.14 | 0.47 |
| Financial | 1.30 | 0.49 | 0.19 | 0.03 | -0.47 | -0.32 | 2.06 | 1.47 |
| Health Care | -1.87 | -0.84 | -0.01 | 0.83 | -2.93 | -0.91 | -1.50 | -0.88 |
| Industrials | -2.35 | -0.28 | -0.31 | -0.29 | 0.30 | 0.38 | -3.08 | -0.96 |
| Technology | -1.74 | 0.09 | -0.54 | 0.55 | 0.79 | -1.29 | -2.82 | 0.66 |
| Materials | 0.26 | -1.32 | -0.01 | -0.66 | 0.83 | -1.05 | -2.28 | -1.17 |
| Real Estate | -0.52 | 0.05 | 0.46 | 0.51 | -0.75 | -0.92 | -0.55 | 0.30 |
| Communications | -0.45 | 0.60 | -1.45 | 0.38 | 0.35 | 0.27 | -0.14 | 0.47 |
| <u>Utilities</u> | -2.87 | -3.49 | -0.90 | 0.98 | -0.87 | -0.52 | -2.92 | -4.42 |
| Size | | | | | | | | |
| Large-cap | -1.82 | 0.18 | -1.06 | -0.88 | -0.88 | -0.15 | -1.08 | 0.63 |
| Mid-cap | 0.28 | 0.76 | 0.89 | 1.81 | 0.22 | 0.21 | -1.08 | 0.27 |
| Small-cap | 0.86 | 1.42 | -0.39 | 0.85 | 0.62 | -0.42 | 1.92 | 2.15 |
| Broad Market | 2.41 | 1.04 | 0.09 | -0.31 | 0.77 | 0.09 | 2.06 | 1.28 |

Source: BofA Securities

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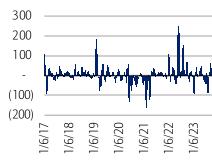
Equity ETF flows: 4-week average flows by sector



Source: BofA Securities

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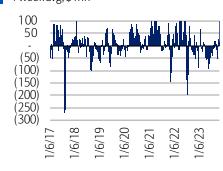
Exhibit 44: Staples ETFs: recent outflows 4 week avg, \$ mn



Source: BofA Securities

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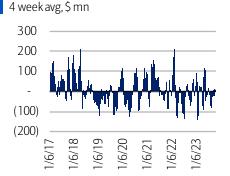
Exhibit 45: Energy ETFs: recent inflows 4 week avg, \$ mn



Source: BofA Securities



Exhibit 46: Financial ETFs: flows flip positive

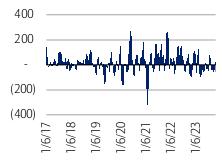


Source: BofA Securities

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Exhibit 47: Health Care ETFs: flows flip negative



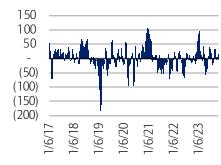


Source: BofA Securities

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Exhibit 48: Industrials ETFs: flows flip negative

4 week avg, \$ mn

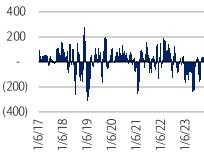


Source: BofA Securities

BofA GLOBAL RESEARCH

Exhibit 49: Tech ETFs: flows flip negative



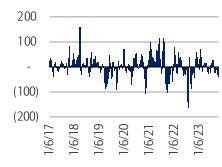


Source: BofA Securities

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Exhibit 50: Materials ETFs: recent outflows

4 week avg, \$ mn

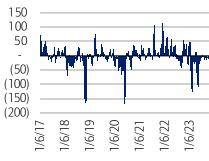


Source: BofA Securities

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Exhibit 51: Real Estate ETFs: flows flip negative

4 week avg, \$ mn

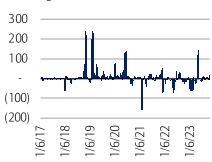


Source: BofA Securities

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Exhibit 52: Comm. Svcs. ETFs: recent inflows

4 week avg, \$ mn

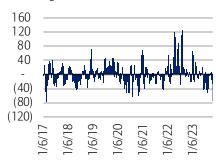


Source: BofA Securities

BofA GLOBAL RESEARCH

Exhibit 53: Utilities ETFs: recent outflows

4 week avg, \$ mn



Source: BofA Securities



Equity ETFs: 4-week average flows by strategy

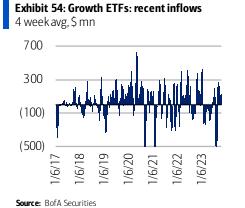


Exhibit 55: Value ETFs: recent inflows

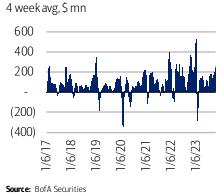
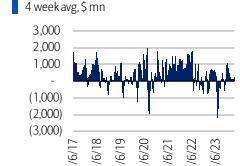


Exhibit 56: Blend ETFs: recent inflows

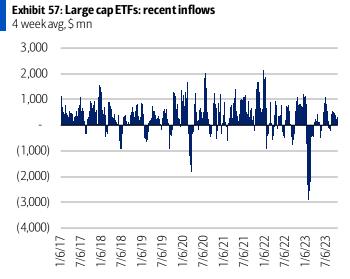


Source: BofA Securities

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Equity ETFs: 4-week average flows by market cap

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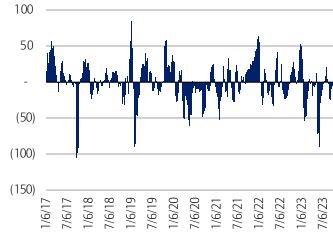
Source: BofA Securities

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Exhibit 58: Mid cap ETFs: recent inflows



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Source: BofA Securities

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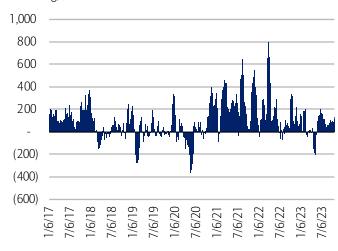
Exhibit 59: Small cap ETFs: recent inflows



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Exhibit 60: Broad Market ETFs: recent inflows





Source: BofA Securities



Cumulative equity sector flows: single stock vs. ETF

 $Exhibit\,61: ETF\ inflows\ have\ slowed, single\ stock\ outflows\ have\ flipped\ to\ inflows\ in\ 2023$

Overall BofA client net buys (sales) of single stocks vs. equity ETFs, \$ mn



Source: BofA Securities

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Exhibit 62: Cons Disc. Single stock flows flip negative and ETF flows flip positive

Cumulative flows 2017-now, \$mn

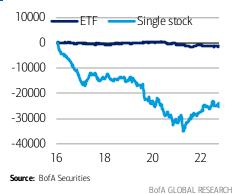


Exhibit 63: Staples: Single stock and ETF recent outflows

Cumulative flows 2017-now, \$mn



Exhibit 64: Energy: Single stock and ETF flows flip positive

Cumulative flows 2017-now, \$mn



Exhibit 65: Financials: Single stock flows flip negative and ETF flows flip positive

Cumulative flows 2017-now, \$mn



Exhibit 66: Health Care: single stock recent inflows and ETF recent outflows

Cumulative flows 2017-now, \$mn



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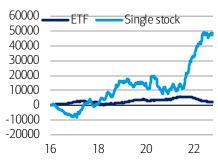
Exhibit 67: Industrials: Single stock recent outflows and ETF flows flip negative

Cumulative flows 2017-now, \$mn



Exhibit 68: Tech: Single stock recent inflows and ETF recent outflows

Cumulative flows 2017-now, \$mn



Source: BofA Securities

BofA GLOBAL RESEARCH

Exhibit 71: Comm. Svcs.: single stocks recent outflows and ETF flows flip negative

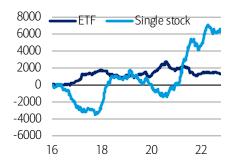
Cumulative flows 2017-now, \$mn



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Exhibit 69: Materials: Single stock and ETF recent outflows

Cumulative flows 2017-now, \$mn



Source: BofA Securities

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Exhibit 72: Utilities: Single stock flows flip negative and ETF recent outflows

Cumulative flows 2017-now, \$mn

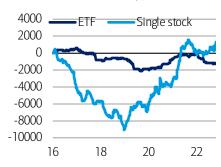


Source: BofA Securities

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Exhibit 70: Real Estate: Single stock recent inflows and ETF recent outflows

Cumulative flows 2017-now, \$mn



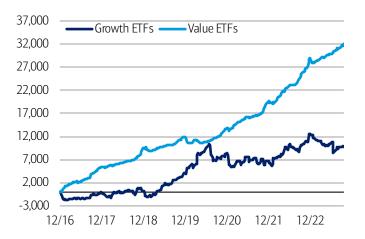
Source: BofA Securities



Cumulative Equity ETF flows by Size and Style

Exhibit 73: Value ETF flows outpacing Growth ETF flows

Growth ETF vs. Value ETF cumulative net buys, 2017-now (\$ mn)



Source: BofA Securities

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Exhibit 75: Trend of persistent inflows into Large Cap ETFs has faltered/seen mixed trends recently

Large Cap ETF cumulative net buys, 2017-now (\$ mn)



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Exhibit 74: Blend ETFs generally seeing inflows recently

Blend ETF cumulative net buys, 2017-now (\$ mn)

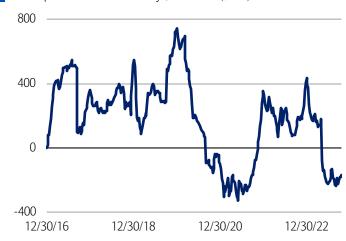


Source: BofA Securities

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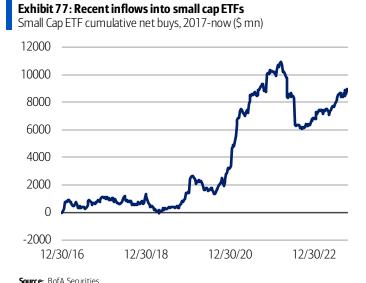
Exhibit 76: Mid Cap ETFs: recent buying after selling spate

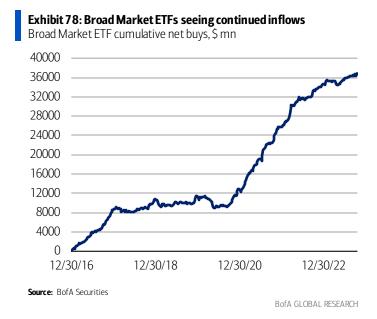
Mid Cap ETF cumulative net buys, 2017-now (\$ mn)



Source: BofA Securities







BofA Equity Client Flow Trends Methodology

This product seeks to answer the questions of:

- 1) What sectors are being bought or sold by BofA clients?
- 2) What market cap size segments are being bought or sold?

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3) What type of client is buying or selling?

This product, which we plan to publish weekly, provides an aggregated view of BofA client trading flows into US stocks executed <u>by</u> the cash equities business of the firm. By aggregating flows across many execution platforms and trading desks, the goal of this product is to provide an overview of what sectors and market caps are being bought or sold, and what type of client is buying or selling. This product is not meant to be predictive of the market, but aims to provide a holistic view of BofA client trading flows by client type, sector and market cap.

The trading flow is for US stocks only and is shown here as "net buys," defined as the dollar amount of buy orders less sell orders. Since this product is meant to provide client action context of recent market and sector performance based on client trading flows, we capture the data as "net buys" rather than trading volume. The order flow shown here represents all US single stock and ETF trades executed by the firm within the cash equity business, excluding OTC and Pink Sheets. Order flow on derivatives such as options, futures and swaps is not included. We show the data on both a weekly basis and as a four-week moving average basis to capture trends. The weekly data, while being timelier, can be influenced by block trades and is therefore more volatile. We believe the four-week moving average is better reflective of trends. Our interpretation of the data is based purely on aggregated trading flows and does not reflect any portfolio positions.

The four client types we include are: (1) hedge funds; (2) institutional clients; (3) private clients; and (4) corporates. All clients that are not hedge funds, corporates or private clients are categorized as institutional clients, and include mutual funds, pension funds, insurance companies, investment counselors, banks, broker dealers, etc.

Market cap size segments are small (<\$2bn), mid (\$2-10bn) and large (>\$10bn). The sectors included are the 11 GICS sectors, as well as ETFs. Beginning 8/31/16, Real Estate is broken out from Financials as the 11th GICS sector. Data from 10/1/18 onward



reflect the new Communication Services sector, while data prior to 10/1/18 reflect the former Telecom sector. We treat all historical net buy ETF flows as if they reflect net buys of US equities. The ETF data primarily consists of US equity ETFs, but may include flows into asset classes such as gold, other commodities and international stocks/bonds traded via US-based ETFs. In addition, net buys of ETFs may include a small amount of purchases of short fund or "bearish" ETFs. However, we believe our aggregate measures for overall US equity flows, as well as size segments and client types, still represent client actions. We began including more granularity on ETF flows as discussed in more detail below in September 2017, with data based on January 2017-present.

The first section of this report shows overall flows into US equities, with weekly charts and tables displaying the breakdown of flows by client type, sector, and market cap. The second section provides more detail on flows by client type, showing the breakdown of each client category's flows by sector and size. The weekly data we publish encompasses flows for the Monday through Friday of the prior week.

We have decided to no longer produce exhibits showing a breakout of pension fund flows (a subset of the Institutional client grouping) or sector-/size-segment level granularity on the corporate client buyback flow contained in prior issues of this product.

Color on ETF flows: We began publishing exhibits on ETF flow granularity in the September 5, 2017 edition of this report. In order to provide more color on ETF flows, based on data available back to January 2017, we began classifying ETF net buys manually by ticker based on Bloomberg Fund Classifications to aggregate each week's ETF net buys by asset class focus (Equity, Fixed Income, Commodity, Alternative, Mixed Allocation, Specialty), by sector (based on the 11 equity sectors), by strategy (Growth, Value, Blend), and by market capitalization (Large, Mid, Small, Broad Market). Note that net buys of ETFs by our clients presented throughout this report do not include creation of new ETF shares by BofA—these flows would show up as single stock net buys (sales) in the underlying sectors of the stocks that comprise the ETF. Market capitalization categorizations of ETFs by Bloomberg are based on the benchmark tracked/replicated; the prospectus may also be considered. Bloomberg may also overrule the classification of the benchmark (for example, by tagging an ETF tracking the S&P 500 as large cap even though the benchmark is multi-cap). Broad market ETFs invest in large, mid or small cap companies. Market cap classifications of ETFs by Bloomberg used in page 2 of this report may differ from the overall market cap categorizations of single stocks/ETFs by Unity in the remainder of this report.

A note on the BofA equity client flow data: Total net buys of US equities (Exhibit 4 on page 2) encompass the total trading flows we have described above. This includes a small portion of "unknown" trades, which result when the client, sector, or market cap is unable to be categorized. These "unknowns" are excluded from Sector, Client and Market Cap breakouts on pages 3-7. Hence, the overall net buys from Exhibit 4 will not exactly match the totals on these pages. Sector, client and market cap unknowns each represent less than 4% of trading volumes on average over our data history.



Disclosures

Important Disclosures

FUNDAMENTAL EQUITY OPINION KEY: Opinions include a Volatility Risk Rating, an Investment Rating and an Income Rating. VOLATILITY RISK RATINGS, indicators of potential price fluctuation, are: A - Low, B - Medium and C - High. INVESTMENT RATINGS reflect the analyst's assessment of both a stock's absolute total return potential as well as its attractiveness for investment relative to other stocks within its Coverage Cluster (defined below). Our investment ratings are: 1 - Buy stocks are expected to have a total return of at least 10% and are the most attractive stocks in the coverage cluster; 2 - Neutral stocks are expected to remain flat or increase in value and are less attractive than Buy rated stocks and 3 - Underperformstocks are the least attractive stocks in a coverage cluster. An investment rating of 6 (No Rating) indicates that a stock is no longer trading on the basis of fundamentals. Analysts assign investment ratings considering, among other things, the 0-12 month total return expectation for a stock and the firm's guidelines for ratings dispersions (shown in the table below). The current price objective for a stock should be referenced to better understand the total return expectation at any given time. The price objective reflects the analyst's view of the potential price appreciation (depreciation).

Investment rating Total return expectation (within 12-month period of date of initial rating) Ratings dispersion guidelines for coverage cluster^{R1}

| виу | ≥ 10% | ≤ /0% |
|--------------|-------|-------|
| Neutral | ≥ 0% | ≤ 30% |
| Underperform | N/A | ≥ 20% |

R1 Ratings dispersions may vary from time to time where BofA Global Research believes it better reflects the investment prospects of stocks in a Coverage Cluster.

INCOME RATINGS, indicators of potential cash dividends, are: 7 - same/higher (dividend considered to be secure), 8 - same/lower (dividend not considered to be secure) and 9 - pays no cash dividend. Coverage Cluster is comprised of stocks covered by a single analyst or two or more analysts sharing a common industry, sector, region or other classification(s). A stock's coverage cluster is included in the most recent BofA Global Research report referencing the stock.

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The date and time of completion of the production of any recommendation in this report shall be the date and time of dissemination of this report as recorded in the report timestamp.

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