

DERIVATIVES – EQUITY AND INDEX OPTIONS

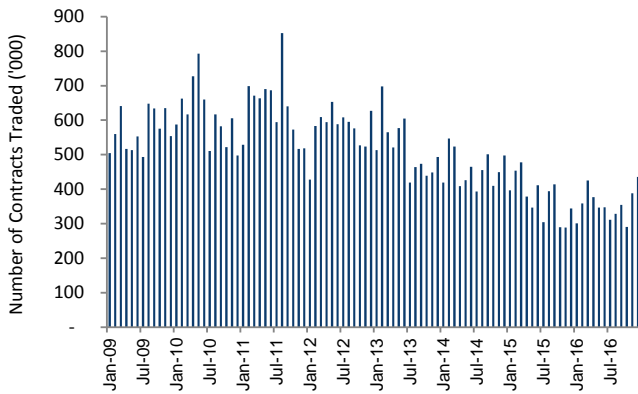
ASX Options Statistics and Analysis

December 2016

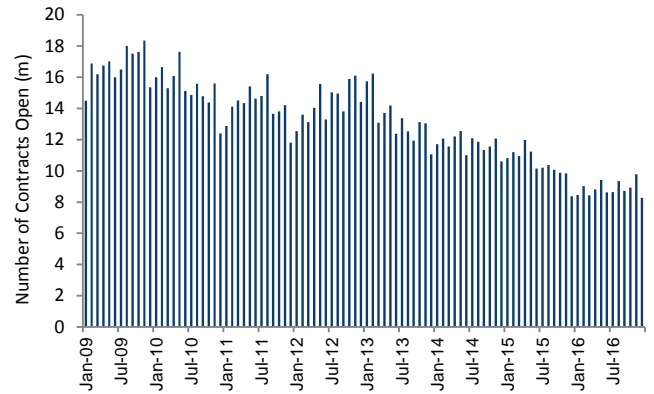


Average Daily Volume (ADV) and Open Interest (OI)

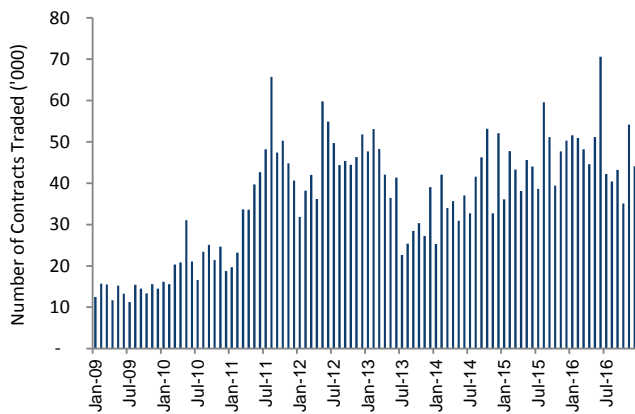
Single Stock Options ADV (adj)



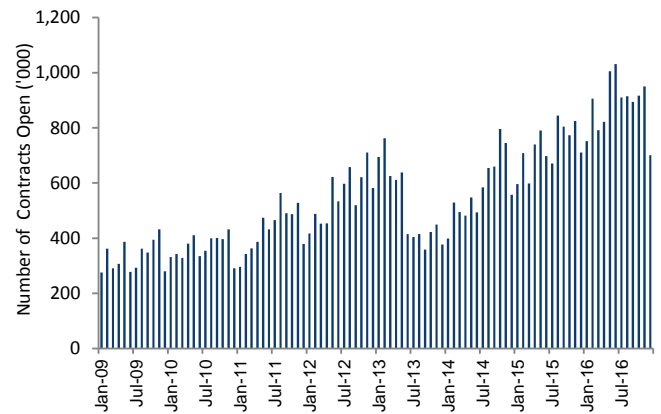
Single Stock Options OI (adj)



XJO Options ADV



XJO Options OI



NOTE: For comparison purposes, Single Stock ETO volumes and Open Interest (OI) were retrospectively adjusted due to the 1,000 to 100 contract size conversion. Single Stock ETO volumes and Open Interest pre-May 2011 were adjusted by a factor of 10.

DERIVATIVES – EQUITY AND INDEX OPTIONS

December 2016

Top Classes by Volume

| RANK | Dec-16 | VOLUME | % MKT | OPEN INTEREST | VOL/OP | SHARE VOLUME | DLR* | PUT/ CALL | Net Calls** | Net Puts** |
|------|---------|-----------|--------|---------------|--------|---------------|-------|--------------|-------------|------------|
| 1 | XJO | 883,216 | 9.2% | 701,240 | 126.0% | n/a | n/a | 117.7% | -7,974 | -7,408 |
| 2 | BHP | 747,315 | 7.8% | 734,627 | 101.7% | 183,161,000 | 40.8% | 51.5% | -6,349 | -17,989 |
| 3 | FMG | 693,411 | 7.2% | 491,351 | 141.1% | 367,073,000 | 18.9% | 148.5% | 8,730 | 6,348 |
| 4 | TLS | 600,304 | 6.3% | 952,834 | 63.0% | 456,061,000 | 13.2% | 45.1% | -31,466 | -5,888 |
| 5 | CBA | 479,144 | 5.0% | 316,404 | 151.4% | 55,977,000 | 85.6% | 51.9% | -3,860 | 514 |
| 6 | QBE | 400,547 | 4.2% | 368,727 | 108.6% | 155,468,000 | 25.8% | 17.4% | 1,124 | -8,156 |
| 7 | RIO | 381,398 | 4.0% | 217,267 | 175.5% | 42,861,000 | 89.0% | 96.0% | -3,442 | -13,365 |
| 8 | STO | 368,043 | 3.8% | 315,694 | 116.6% | 275,340,000 | 13.4% | 110.9% | -10,021 | -19,453 |
| 9 | ANZ | 355,713 | 3.7% | 367,084 | 96.9% | 120,488,000 | 29.5% | 36.7% | -1,342 | 17,907 |
| 10 | NCM | 350,674 | 3.7% | 229,185 | 153.0% | 90,378,000 | 38.8% | 97.1% | 17,757 | -2,806 |
| 11 | ORG | 314,636 | 3.3% | 206,021 | 152.7% | 147,937,000 | 21.3% | 10.8% | -2,860 | -668 |
| 12 | LLC | 294,842 | 3.1% | 148,252 | 198.9% | 40,589,000 | 72.6% | 2.3% | -1,771 | 1,684 |
| 13 | NAB | 267,838 | 2.8% | 353,532 | 75.8% | 99,327,000 | 27.0% | 41.4% | -10,333 | 9,208 |
| 14 | SCG | 261,724 | 2.7% | 148,882 | 175.8% | 270,882,000 | 9.7% | 24.2% | 1,591 | 1,559 |
| 15 | WBC | 249,342 | 2.6% | 310,956 | 80.2% | 105,651,000 | 23.6% | 62.8% | -19,220 | 2,605 |
| 16 | S32 | 201,909 | 2.1% | 155,643 | 129.7% | 461,301,000 | 4.4% | 48.2% | 6,499 | -10,758 |
| 17 | MQG | 201,474 | 2.1% | 117,602 | 171.3% | 21,388,000 | 94.2% | 77.2% | -412 | 2,106 |
| 18 | WPL | 183,466 | 1.9% | 146,776 | 125.0% | 56,769,000 | 32.3% | 66.4% | -1,149 | -4,273 |
| 19 | QAN | 173,848 | 1.8% | 109,259 | 159.1% | 154,839,000 | 11.2% | 17.9% | -17,435 | -1,582 |
| 20 | FXJ | 171,430 | 1.8% | 103,734 | 165.3% | 131,005,000 | 13.1% | 1079.8% | -12,780 | -4,500 |
| 21 | CSL | 161,689 | 1.7% | 104,896 | 154.1% | 21,744,000 | 74.4% | 99.1% | -6,599 | -4,382 |
| 22 | WOW | 153,349 | 1.6% | 140,044 | 109.5% | 55,944,000 | 27.4% | 87.3% | -5,857 | -4,277 |
| 23 | BXB | 150,911 | 1.6% | 106,560 | 141.6% | 61,822,000 | 24.4% | 8.5% | -5,780 | 206 |
| 24 | WES | 122,336 | 1.3% | 107,935 | 113.3% | 45,123,000 | 27.1% | 78.0% | -3,446 | -1,452 |
| 25 | AMP | 112,623 | 1.2% | 226,867 | 49.6% | 150,543,000 | 7.5% | 48.4% | -22,043 | -677 |
| 26 | AWC | 87,620 | 0.9% | 100,568 | 87.1% | 222,985,000 | 3.9% | 27.7% | 5,269 | 3,805 |
| 27 | MPL | 83,703 | 0.9% | 140,759 | 59.5% | 120,636,000 | 6.9% | 212.5% | -17,589 | 8,491 |
| 28 | RRL | 75,377 | 0.8% | 48,275 | 156.1% | 97,539,000 | 7.7% | 11.9% | -1,062 | 336 |
| 29 | WFD | 65,754 | 0.7% | 52,058 | 126.3% | 123,259,000 | 5.3% | 37.4% | -2,786 | -1,884 |
| 30 | SYD | 60,851 | 0.6% | 65,352 | 93.1% | 196,731,000 | 3.1% | 52.1% | -3,720 | -1,427 |
| | Market^ | 9,590,210 | 100.0% | 8,984,657 | 106.7% | 7,200,236,000 | 13.3% | 59.1% | -30,389 | -13,165 |

* Derivatives Liquidity Ratio (DLR) is options volume (in shares) / volume of underlying security

** The net calls/puts are the number of options contracts bought minus the number of options contracts sold, excluding Market Makers

^ ETO classes only included

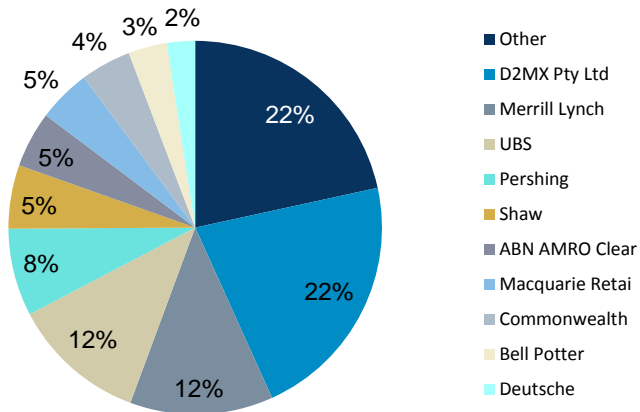
NOTE: Figures for the above charts are double-sided

DERIVATIVES – EQUITY AND INDEX OPTIONS

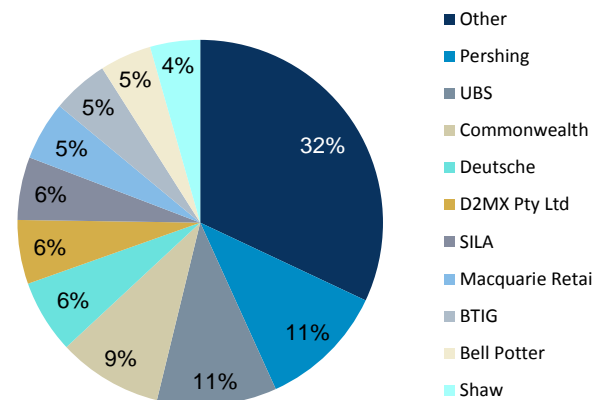
December 2016

Market Share by Value and Volume Traded

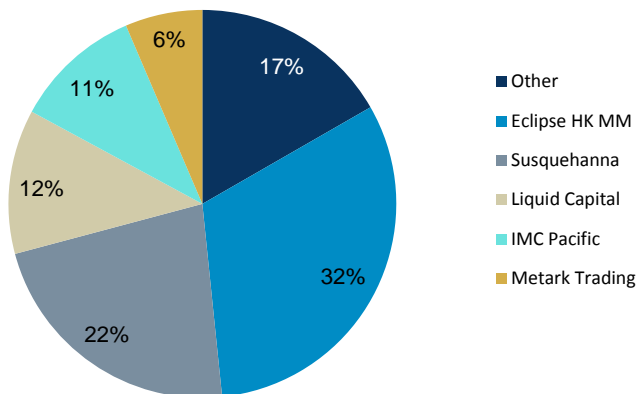
Top 10 Brokers by Value



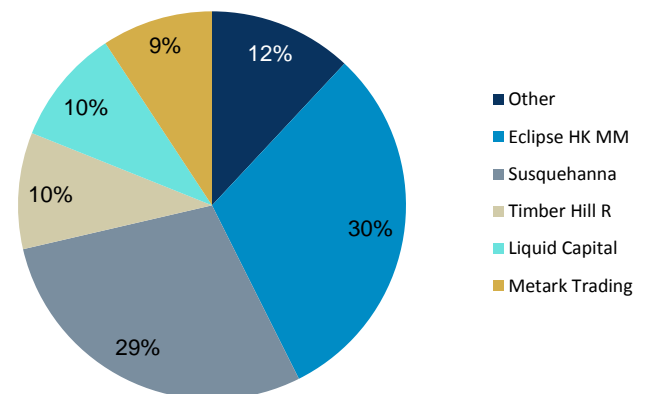
Top 10 Brokers by Volume



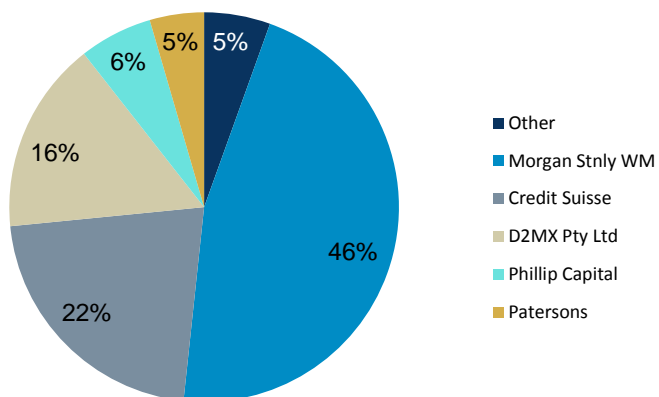
Top 5 Market Makers by Value



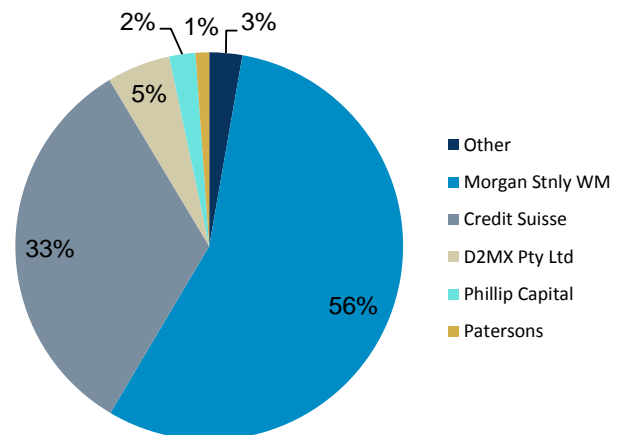
Top 5 Market Makers by Volume



Top 5 LEPO Participants by Value



Top 5 LEPO Participants by Volume

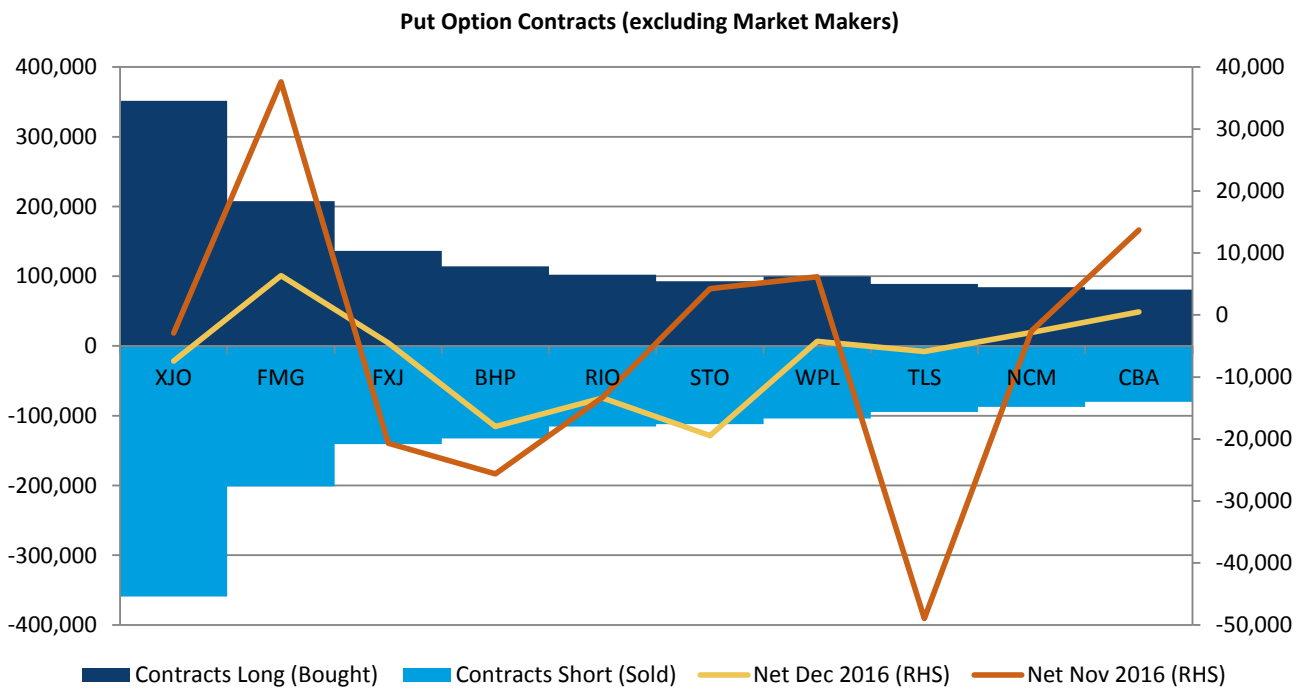
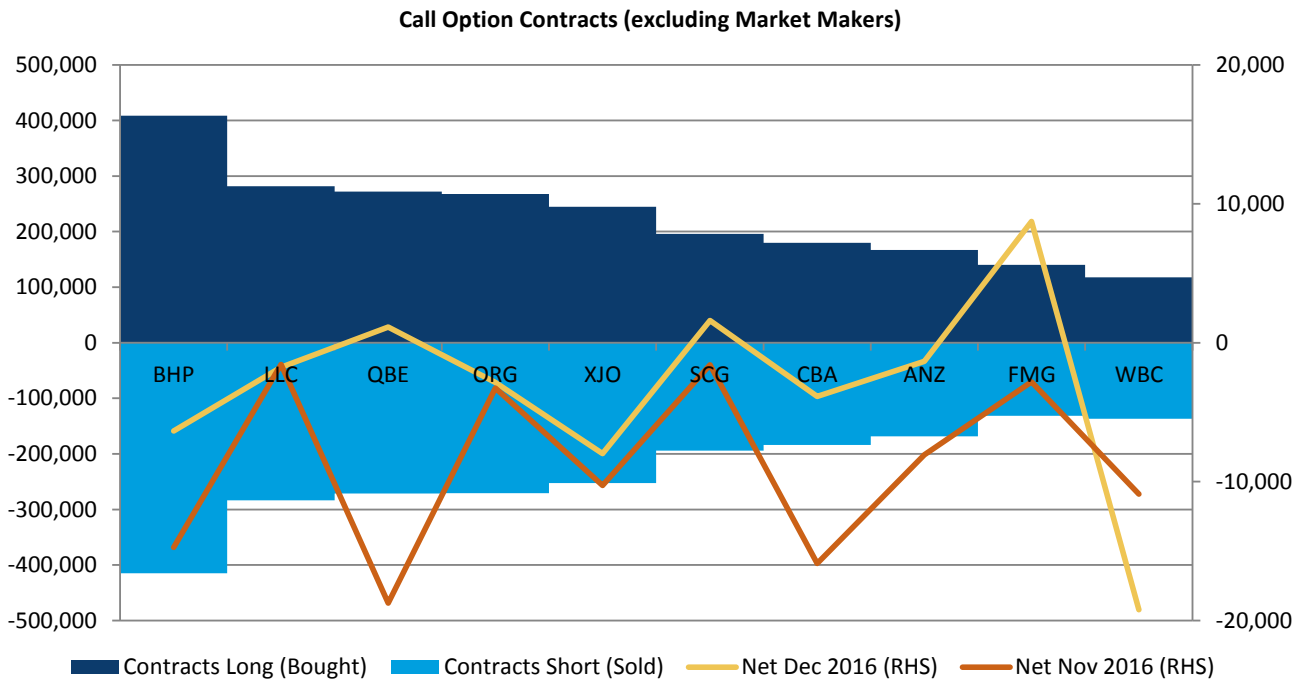


NOTE: The above charts include contracts traded in both Single Stock and Index options
LEPOs are excluded from these charts

DERIVATIVES – EQUITY AND INDEX OPTIONS

December 2016

Top 10 Call and Put Options Contracts

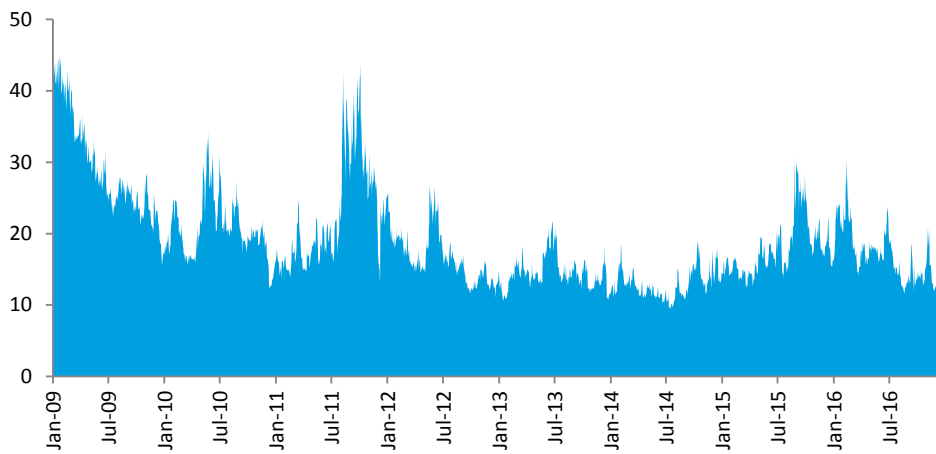


NOTE: The charts above show the number of contracts bought and sold by non-market-making participants in the top 10 underlying securities

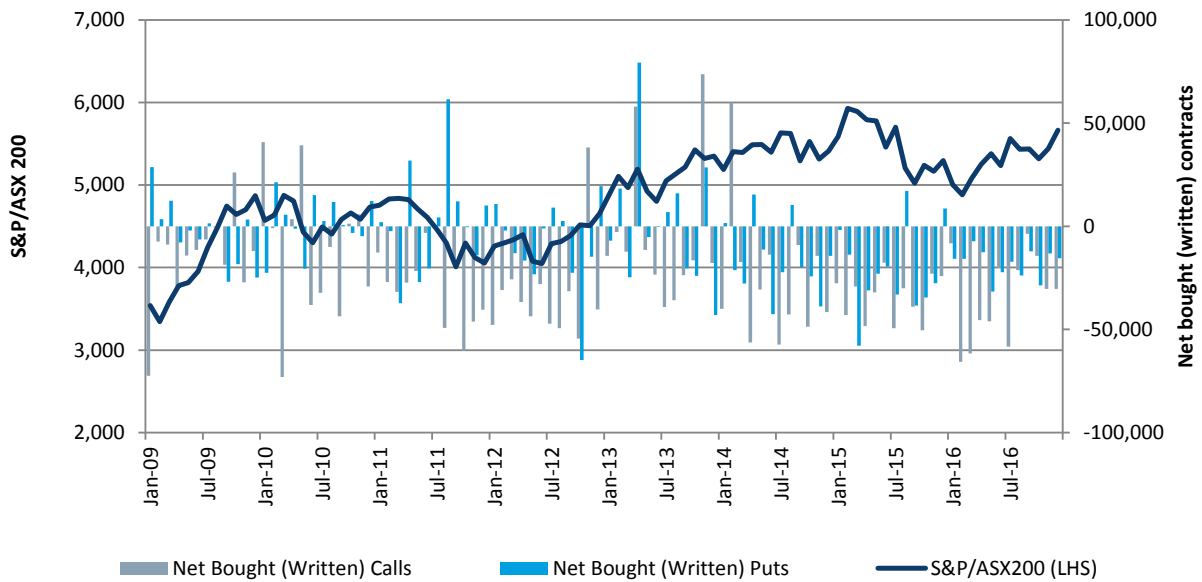
DERIVATIVES – EQUITY AND INDEX OPTIONS

December 2016

S&P/ASX 200 VIX



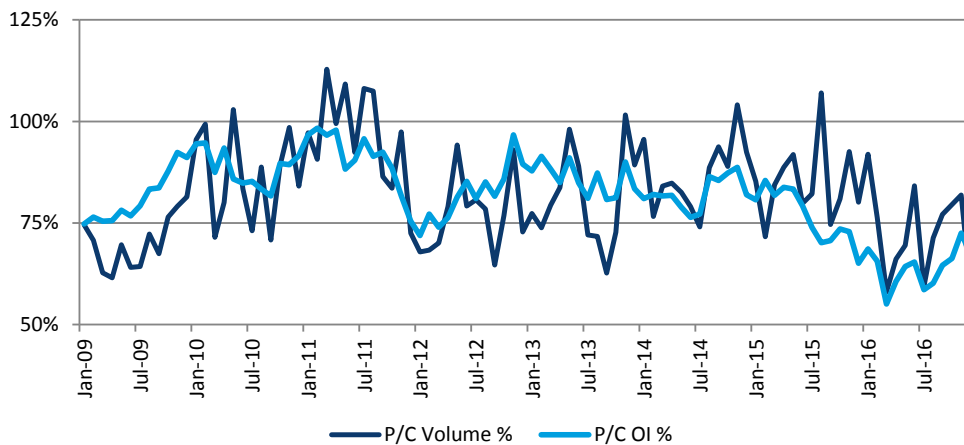
Options Net Buy/Sell Volume (excluding market makers)



Net Bought (Written) Calls Net Bought (Written) Puts S&P/ASX200 (LHS)

NOTE: Single Stock options expressed in terms of 1,000 per contract in above chart.

Put-Call Indicators



P/C Volume % P/C OI %

DERIVATIVES – EQUITY AND INDEX OPTIONS

December 2016

Volume, Value and Open Interest

Volume

| PERIOD | CALL | PUT | TOTAL OPTIONS | EQUITY OPTIONS | EQUITY LEPO | ASX INDEX OPTION | INDEX LEPO |
|----------------|------------|------------|---------------|----------------|-------------|------------------|------------|
| Dec-16 | 6,029,593 | 3,560,617 | 9,590,210 | 7,383,481 | 1,323,513 | 882,440 | 776 |
| Nov-16 | 5,348,805 | 4,377,345 | 9,726,150 | 8,454,942 | 79,122 | 1,191,401 | 685 |
| Variance | 12.7% | -18.7% | -1.4% | -12.7% | 1572.7% | -25.9% | 13.3% |
| Nov-15 | 3,670,275 | 3,396,467 | 7,066,742 | 6,006,059 | 57,938 | 1,001,980 | 765 |
| Variance | 64.3% | 4.8% | 35.7% | 22.9% | 2184.4% | -11.9% | 1.4% |
| Cal Yr to date | 59,418,148 | 42,621,075 | 102,039,223 | 85,174,090 | 4,718,149 | 12,138,930 | 8,054 |
| Fin Yr to date | 29,741,007 | 21,080,079 | 50,821,086 | 43,024,437 | 2,216,694 | 5,577,103 | 2,852 |

Value (\$m)

| PERIOD | CALL | PUT | TOTAL OPTIONS | EQUITY OPTIONS | EQUITY LEPO | INDEX OPTION | INDEX LEPO |
|----------------|--------|--------|---------------|----------------|-------------|--------------|------------|
| Dec-16 | 2,656 | 457 | 3,113 | 832 | 1,699 | 541 | 40 |
| Nov-16 | 825 | 511 | 1,336 | 644 | 161 | 507 | 25 |
| Variance | 222.0% | -10.6% | 133.0% | 29.3% | 957.7% | 6.8% | 62.9% |
| Nov-15 | 659 | 745 | 1,404 | 633 | 90 | 641 | 39 |
| Variance | 303.1% | -38.6% | 121.8% | 31.4% | 1793.8% | -15.6% | 1.5% |
| Cal Yr to date | 15,345 | 7,643 | 22,988 | 8,689 | 6,011 | 7,890 | 397 |
| Fin Yr to date | 7,720 | 2,722 | 10,442 | 3,978 | 3,243 | 3,092 | 129 |

Open Interest

| PERIOD | CALL | PUT | TOTAL OPTIONS | EQUITY OPTIONS | EQUITY LEPO | INDEX OPTION | INDEX LEPO |
|----------------|-----------|-----------|---------------|----------------|-------------|--------------|------------|
| Dec-16 | 5,367,846 | 3,616,811 | 8,984,657 | 7,619,412 | 664,005 | 700,838 | 402 |
| Nov-16 | 6,225,654 | 4,510,813 | 10,736,467 | 8,947,195 | 838,400 | 950,735 | 137 |
| Variance | -13.8% | -19.8% | -16.3% | -14.8% | -20.8% | -26.3% | 193.4% |
| Nov-15 | 6,167,964 | 4,491,466 | 10,659,430 | 8,648,241 | 1,184,150 | 825,213 | 1,826 |
| Variance | -13.0% | -19.5% | -15.7% | -11.9% | -43.9% | -15.1% | -78.0% |
| Cal Yr to date | 5,367,846 | 3,616,811 | 8,984,657 | 7,619,412 | 664,005 | 700,838 | 402 |
| Fin Yr to date | 5,367,846 | 3,616,811 | 8,984,657 | 7,619,412 | 664,005 | 700,838 | 402 |

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More information

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<http://www.asx.com.au/products/exchange-traded-options.htm>