

FIX/FAST Market Data Channel Definitions – PUMA Production Environment

| Channel | Book Type | Name | Market recovery | | Incrementals | | Instrument definition | |
|--|-----------|-------------------------------------|-----------------|-------|---------------|-------|-----------------------|-------|
| | | | UDP address | Port | UDP address | Port | UDP address | Port |
| BM&F BOVESPA DERIVATIVES – FEED A | | | | | | | | |
| 001 | MBO | FX FUTURES | 233.252.14.2 | 30001 | 233.252.14.3 | 20001 | 233.252.14.1 | 10001 |
| 101 | MBP | | 233.252.14.4 | 30101 | 233.252.14.5 | 20101 | | |
| 201 | TOB | | 233.252.14.6 | 30201 | 233.252.14.7 | 20201 | | |
| 002 | MBO | FX OPTIONS E EQUITIES INDEX OPTIONS | 233.252.14.9 | 30002 | 233.252.14.10 | 20002 | 233.252.14.8 | 10002 |
| 102 | MBP | | 233.252.14.11 | 30102 | 233.252.14.12 | 20102 | | |
| 202 | TOB | | 233.252.14.13 | 30202 | 233.252.14.14 | 20202 | | |
| 003 | MBO | INTEREST RATE FUTURES | 233.252.14.16 | 30003 | 233.252.14.17 | 20003 | 233.252.14.15 | 10003 |
| 103 | MBP | | 233.252.14.18 | 30103 | 233.252.14.19 | 20103 | | |
| 203 | TOB | | 233.252.14.20 | 30203 | 233.252.14.21 | 20203 | | |
| 004 | MBO | INTEREST RATE OPTIONS | 233.252.14.23 | 30004 | 233.252.14.24 | 20004 | 233.252.14.22 | 10004 |
| 104 | MBP | | 233.252.14.25 | 30104 | 233.252.14.26 | 20104 | | |
| 204 | TOB | | 233.252.14.27 | 30204 | 233.252.14.28 | 20204 | | |
| 005 | MBO | COMMODITY FUTURES | 233.252.14.30 | 30005 | 233.252.14.31 | 20005 | 233.252.14.29 | 10005 |
| 105 | MBP | | 233.252.14.32 | 30105 | 233.252.14.33 | 20105 | | |
| 205 | TOB | | 233.252.14.34 | 30205 | 233.252.14.35 | 20205 | | |
| 006 | MBO | COMMODITY OPTIONS | 233.252.14.37 | 30006 | 233.252.14.38 | 20006 | 233.252.14.36 | 10006 |
| 106 | MBP | | 233.252.14.39 | 30106 | 233.252.14.40 | 20106 | | |
| 206 | TOB | | 233.252.14.41 | 30206 | 233.252.14.42 | 20206 | | |
| 007 | MBO | EQUITY INDEX FUTURES | 233.252.14.44 | 30007 | 233.252.14.45 | 20007 | 233.252.14.43 | 10007 |
| 107 | MBP | | 233.252.14.46 | 30107 | 233.252.14.47 | 20107 | | |
| 207 | TOB | | 233.252.14.48 | 30207 | 233.252.14.49 | 20207 | | |
| 008 | MBO | S&P 500 INDEX FUTURES | 233.252.14.51 | 30008 | 233.252.14.52 | 20008 | 233.252.14.50 | 10008 |
| 108 | MBP | | 233.252.14.53 | 30108 | 233.252.14.54 | 20108 | | |
| 208 | TOB | | 233.252.14.55 | 30208 | 233.252.14.56 | 20208 | | |
| 009 | MBO | FX SPOT | 233.252.14.58 | 30009 | 233.252.14.59 | 20009 | 233.252.14.57 | 10009 |
| 109 | MBP | | 233.252.14.60 | 30109 | 233.252.14.61 | 20109 | | |
| 209 | TOB | | 233.252.14.62 | 30209 | 233.252.14.63 | 20209 | | |

| | | | | | | | | |
|-----|-----|---------------------------------------|---------------|-------|---------------|-------|---------------|-------|
| 010 | MBO | EQUITY INDEX FUTURES – MINI CONTRACTS | 233.252.14.65 | 30010 | 233.252.14.66 | 20010 | 233.252.14.64 | 10010 |
| 110 | MBP | | 233.252.14.67 | 30110 | 233.252.14.68 | 20110 | | |
| 210 | TOB | | 233.252.14.69 | 30210 | 233.252.14.70 | 20210 | | |
| 011 | MBO | FX FUTURES – MINI CONTRACTS | 233.252.14.72 | 30011 | 233.252.14.73 | 20011 | 233.252.14.71 | 10011 |
| 111 | MBP | | 233.252.14.74 | 30111 | 233.252.14.75 | 20111 | | |
| 211 | TOB | | 233.252.14.76 | 30211 | 233.252.14.77 | 20211 | | |

FIX/FAST Market Data Channel Definitions – PUMA DR Environment

| Channel | Book Type | Name | Market recovery | | Incrementals | | Instrument definition | |
|--|-----------|---------------------------------------|-----------------|-------|---------------|-------|-----------------------|-------|
| | | | UDP address | Port | UDP address | Port | UDP address | Port |
| BM&F BOVESPA DERIVATIVES – FEED B | | | | | | | | |
| 001 | MBO | FX FUTURES | 233.252.16.2 | 30001 | 233.252.16.3 | 20001 | 233.252.16.1 | 10001 |
| 101 | MBP | | 233.252.16.4 | 30101 | 233.252.16.5 | 20101 | | |
| 201 | TOB | | 233.252.16.6 | 30201 | 233.252.16.7 | 20201 | | |
| 002 | MBO | FX OPTIONS E EQUITIES INDEX OPTIONS | 233.252.16.9 | 30002 | 233.252.16.10 | 20002 | 233.252.16.8 | 10002 |
| 102 | MBP | | 233.252.16.11 | 30102 | 233.252.16.12 | 20102 | | |
| 202 | TOB | | 233.252.16.13 | 30202 | 233.252.16.14 | 20202 | | |
| 003 | MBO | INTEREST RATE FUTURES | 233.252.16.16 | 30003 | 233.252.16.17 | 20003 | 233.252.16.15 | 10003 |
| 103 | MBP | | 233.252.16.18 | 30103 | 233.252.16.19 | 20103 | | |
| 203 | TOB | | 233.252.16.20 | 30203 | 233.252.16.21 | 20203 | | |
| 004 | MBO | INTEREST RATE OPTIONS | 233.252.16.23 | 30004 | 233.252.16.24 | 20004 | 233.252.16.22 | 10004 |
| 104 | MBP | | 233.252.16.25 | 30104 | 233.252.16.26 | 20104 | | |
| 204 | TOB | | 233.252.16.27 | 30204 | 233.252.16.28 | 20204 | | |
| 005 | MBO | COMMODITY FUTURES | 233.252.16.30 | 30005 | 233.252.16.31 | 20005 | 233.252.16.29 | 10005 |
| 105 | MBP | | 233.252.16.32 | 30105 | 233.252.16.33 | 20105 | | |
| 205 | TOB | | 233.252.16.34 | 30205 | 233.252.16.35 | 20205 | | |
| 006 | MBO | COMMODITY OPTIONS | 233.252.16.37 | 30006 | 233.252.16.38 | 20006 | 233.252.16.36 | 10006 |
| 106 | MBP | | 233.252.16.39 | 30106 | 233.252.16.40 | 20106 | | |
| 206 | TOB | | 233.252.16.41 | 30206 | 233.252.16.42 | 20206 | | |
| 007 | MBO | EQUITY INDEX FUTURES | 233.252.16.44 | 30007 | 233.252.16.45 | 20007 | 233.252.16.43 | 10007 |
| 107 | MBP | | 233.252.16.46 | 30107 | 233.252.16.47 | 20107 | | |
| 207 | TOB | | 233.252.16.48 | 30207 | 233.252.16.49 | 20207 | | |
| 008 | MBO | S&P 500 INDEX FUTURES | 233.252.16.51 | 30008 | 233.252.16.52 | 20008 | 233.252.16.50 | 10008 |
| 108 | MBP | | 233.252.16.53 | 30108 | 233.252.16.54 | 20108 | | |
| 208 | TOB | | 233.252.16.55 | 30208 | 233.252.16.56 | 20208 | | |
| 009 | MBO | FX SPOT | 233.252.16.58 | 30009 | 233.252.16.59 | 20009 | 233.252.16.57 | 10009 |
| 109 | MBP | | 233.252.16.60 | 30109 | 233.252.16.61 | 20109 | | |
| 209 | TOB | | 233.252.16.62 | 30209 | 233.252.16.63 | 20209 | | |
| 010 | MBO | EQUITY INDEX FUTURES – MINI CONTRACTS | 233.252.16.65 | 30010 | 233.252.16.66 | 20010 | 233.252.16.64 | 10010 |
| 110 | MBP | | 233.252.16.67 | 30110 | 233.252.16.68 | 20110 | | |
| 210 | TOB | | 233.252.16.69 | 30210 | 233.252.16.70 | 20210 | | |
| 011 | MBO | FX FUTURES – MINI CONTRACTS | 233.252.16.72 | 30011 | 233.252.16.73 | 20011 | 233.252.16.71 | 10011 |
| 111 | MBP | | 233.252.16.74 | 30111 | 233.252.16.75 | 20111 | | |
| 211 | TOB | | 233.252.16.76 | 30211 | 233.252.16.77 | 20211 | | |

FIX/FAST Market Data Channel Definitions – PUMA New DR Environment

| Channel | Book Type | Name | Market recovery | | Incrementals | | Instrument definition | |
|--|-----------|---------------------------------------|-----------------|-------|---------------|-------|-----------------------|-------|
| | | | UDP address | Port | UDP address | Port | UDP address | Port |
| BM&F BOVESPA DERIVATIVES – FEED C | | | | | | | | |
| 001 | MBO | FX FUTURES | 233.252.17.2 | 30001 | 233.252.17.3 | 20001 | 233.252.17.1 | 10001 |
| 101 | MBP | | 233.252.17.4 | 30101 | 233.252.17.5 | 20101 | | |
| 201 | TOB | | 233.252.17.6 | 30201 | 233.252.17.7 | 20201 | | |
| 002 | MBO | FX OPTIONS E EQUITIES INDEX OPTIONS | 233.252.17.9 | 30002 | 233.252.17.10 | 20002 | 233.252.17.8 | 10002 |
| 102 | MBP | | 233.252.17.11 | 30102 | 233.252.17.12 | 20102 | | |
| 202 | TOB | | 233.252.17.13 | 30202 | 233.252.17.14 | 20202 | | |
| 003 | MBO | INTEREST RATE FUTURES | 233.252.17.16 | 30003 | 233.252.17.17 | 20003 | 233.252.17.15 | 10003 |
| 103 | MBP | | 233.252.17.18 | 30103 | 233.252.17.19 | 20103 | | |
| 203 | TOB | | 233.252.17.20 | 30203 | 233.252.17.21 | 20203 | | |
| 004 | MBO | INTEREST RATE OPTIONS | 233.252.17.23 | 30004 | 233.252.17.24 | 20004 | 233.252.17.22 | 10004 |
| 104 | MBP | | 233.252.17.25 | 30104 | 233.252.17.26 | 20104 | | |
| 204 | TOB | | 233.252.17.27 | 30204 | 233.252.17.28 | 20204 | | |
| 005 | MBO | COMMODITY FUTURES | 233.252.17.30 | 30005 | 233.252.17.31 | 20005 | 233.252.17.29 | 10005 |
| 105 | MBP | | 233.252.17.32 | 30105 | 233.252.17.33 | 20105 | | |
| 205 | TOB | | 233.252.17.34 | 30205 | 233.252.17.35 | 20205 | | |
| 006 | MBO | COMMODITY OPTIONS | 233.252.17.37 | 30006 | 233.252.17.38 | 20006 | 233.252.17.36 | 10006 |
| 106 | MBP | | 233.252.17.39 | 30106 | 233.252.17.40 | 20106 | | |
| 206 | TOB | | 233.252.17.41 | 30206 | 233.252.17.42 | 20206 | | |
| 007 | MBO | EQUITY INDEX FUTURES | 233.252.17.44 | 30007 | 233.252.17.45 | 20007 | 233.252.17.43 | 10007 |
| 107 | MBP | | 233.252.17.46 | 30107 | 233.252.17.47 | 20107 | | |
| 207 | TOB | | 233.252.17.48 | 30207 | 233.252.17.49 | 20207 | | |
| 008 | MBO | S&P 500 INDEX FUTURES | 233.252.17.51 | 30008 | 233.252.17.52 | 20008 | 233.252.17.50 | 10008 |
| 108 | MBP | | 233.252.17.53 | 30108 | 233.252.17.54 | 20108 | | |
| 208 | TOB | | 233.252.17.55 | 30208 | 233.252.17.56 | 20208 | | |
| 009 | MBO | FX SPOT | 233.252.17.58 | 30009 | 233.252.17.59 | 20009 | 233.252.17.57 | 10009 |
| 109 | MBP | | 233.252.17.60 | 30109 | 233.252.17.61 | 20109 | | |
| 209 | TOB | | 233.252.17.62 | 30209 | 233.252.17.63 | 20209 | | |
| 010 | MBO | EQUITY INDEX FUTURES – MINI CONTRACTS | 233.252.17.65 | 30010 | 233.252.17.66 | 20010 | 233.252.17.64 | 10010 |
| 110 | MBP | | 233.252.17.67 | 30110 | 233.252.17.68 | 20110 | | |
| 210 | TOB | | 233.252.17.69 | 30210 | 233.252.17.70 | 20210 | | |
| 011 | MBO | FX FUTURES – MINI CONTRACTS | 233.252.17.72 | 30011 | 233.252.17.73 | 20011 | 233.252.17.71 | 10011 |
| 111 | MBP | | 233.252.17.74 | 30111 | 233.252.17.75 | 20111 | | |
| 211 | TOB | | 233.252.17.76 | 30211 | 233.252.17.77 | 20211 | | |

