Single_up | NLLA Single_up(#0): [3.4059, 3.8444, 0.2090, 0.1677, 0.00141, 3.003e-15, 0.0000, 0.1528, 0.0707, 0.0017] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.009(3, 0)(2, 1)-0.010(1, 2) (0, 3)-0.011alpha = COV/Var-0.012-0.013-0.014alpha data -0.015alpha fit

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#1): [3.6443, 3.9873, 0.2541, 0.1872, 0.001149, 4.585e-19, 0.0000, 0.1797, 0.0848, 0.0036] 1700 40 (1, 0)(0, 1)1600 38 1500 Order One Moms **Order Two Moms** 1400 36 (2, 0)(1, 1)1300 (0, 2)1200 1100 32 1000 30 20 30 40 50 60 70 20 30 40 50 60 70 Time Time (3, 0)alpha data -0.008570000 (2, 1)alpha fit (1, 2)-0.0090(0, 3)= COV/Var60000 -0.0095-0.010050000 alpha -0.010540000 -0.0110-0.011530000

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Time

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Time

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Single_up | NLLA Single_up(#2): [2.7935, 4.0120, 0.1838, 0.1836, 0.001065, 4.213e-14, 0.0000, 0.1341, 0.0820, 0.0018] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data (2, 1)-0.0100alpha fit (1, 2)(0, 3)Order Three Moms COV/Var -0.0105 alpha = -0.0110 -0.0115

-0.0120

Time

Time

Single_up | NLLA Single_up(#3): [4.0167, 3.9689, 0.2672, 0.1856, 0.001374, 1.007e-15, 0.0000, 0.1903, 0.0828, 0.0046] 1700 40 (1, 0) (0, 1)1600 38 1500 Order One Moms **Order Two Moms** 1400 (2, 0)36 (1, 1)1300 (0, 2)34 1200 1100 32 1000 20 30 40 50 60 70 20 30 40 50 60 70 Time Time -0.0090(3, 0)alpha_data 70000 (2, 1)alpha_fit -0.0095(1, 2)(0, 3)-0.010060000 COV/Var -0.0105-0.011050000 alpha -0.011540000 -0.0120-0.0125 30000

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Time

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Single_up | NLLA Single_up(#4): [3.9962, 3.8317, 0.2644, 0.1759, 0.001465, 3.964e-15, 0.0000, 0.1916, 0.0777, 0.0032] (1, 0)(0, 1) Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)(2, 1)(1, 2) -0.011(0, 3)alpha = COV/Var-0.012 -0.013 alpha data -0.014alpha fit

Time

Time

Single_up | NLLA Single_up(#5): [4.0483, 4.0775, 0.2764, 0.1821, 0.001297, 1.042e-10, 0.0000, 0.1951, 0.0802, 0.0000] 1700 40 (1, 0)(0, 1)1600 38 1500 Order One Moms **Order Two Moms** 1400 (2, 0)36 (1, 1)1300 (0, 2)34 1200 1100 32 1000 20 30 40 50 60 70 20 30 40 50 60 70 Time Time (3, 0)alpha_data -0.009570000 (2, 1) alpha_fit (1, 2)-0.0100(0, 3)60000 -0.0105COV/Var -0.011050000 alpha -0.0115-0.012040000 -0.0125-0.013030000

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Time

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Time

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Single_up | NLLA Single_up(#6): [3.8672, 4.1431, 0.2524, 0.1812, 0.001383, 1.751e-05, 0.0000, 0.1801, 0.0782, 0.0000] (1, 0)(0, 1)Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0)-0.010(2, 1)(1, 2) (0, 3)-0.011Order Three Moms alpha = COV/Var-0.012-0.013-0.014alpha data alpha fit

Time

Time

Single_up | NLLA Single_up(#7): [3.6099, 4.0981, 0.2435, 0.1776, 0.001139, 9.392e-05, 0.0000, 0.1705, 0.0778, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data -0.0095(2, 1)alpha fit (1, 2)-0.0100(0, 3)-0.0105COV/Var -0.0110alpha = -0.0115-0.0120-0.0125-0.0130

Time

Time

Single_up | NLLA Single_up(#8): [3.0515, 3.7804, 0.2003, 0.1784, 0.001164, 3.326e-14, 0.0000, 0.1460, 0.0805, 0.0044] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0090(3, 0) alpha_data (2, 1)alpha fit -0.0095(1, 2) (0, 3)Order Three Moms COV/Var -0.0100alpha = -0.0105-0.0110-0.0115

Time

Time

Single_up | NLLA Single_up(#9): [3.8402, 3.8844, 0.2615, 0.1929, 0.001342, 1.545e-15, 0.0000, 0.1885, 0.0897, 0.0076] (1, 0) (0, 1) Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data (2, 1)alpha fit -0.009(1, 2)(0, 3)**Order Three Moms** alpha = COV/Var-0.010 -0.011-0.012

Time

Time

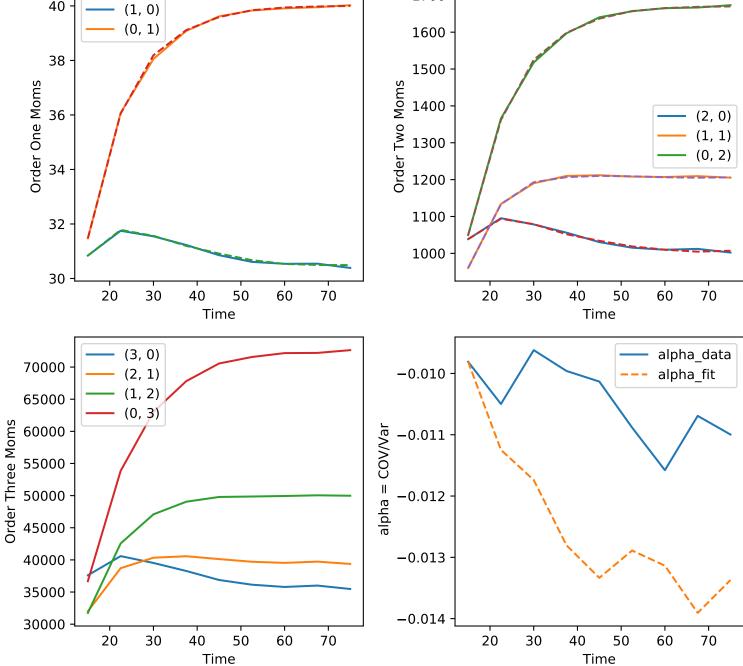
Single_up | NLLA Single_up(#10): [3.1594, 3.8682, 0.2021, 0.1754, 0.001266, 1.009e-14, 0.0000, 0.1482, 0.0764, 0.0031] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0095(3, 0)(2, 1)-0.0100(1, 2)(0, 3)Order Three Moms -0.0105COV/Var -0.0110alpha_data alpha fit alpha -0.0115-0.0120

-0.0125

Time

Time

Single_up | NLLA Single_up(#11): [3.2543, 4.0823, 0.2037, 0.1774, 0.001276, 1.299e-05, 0.0000, 0.1473, 0.0759, 0.0000] (1, 0)(0, 1)Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data (2, 1)-0.010alpha fit (1, 2)(0, 3)-0.011-0.012



Single_up | NLLA Single_up(#12): [3.3110, 4.0133, 0.2082, 0.1752, 0.001364, 2.479e-12, 0.0000, 0.1532, 0.0748, 0.0000] 1700 40 (1, 0)(0, 1)1600 38 1500 Order Two Moms 1300 1300 1200 Order One Moms 36 (2, 0)(1, 1)(0, 2)34 1100 32 1000 30 20 30 40 50 60 . 70 20 30 40 50 60 70 Time Time -0.009(3, 0) alpha_data 70000 (2, 1)alpha_fit -0.010(1, 2)65000 (0, 3)-0.011**Order Three Moms** 60000 alpha = COV/Var-0.01255000 50000 -0.01345000 -0.01440000

-0.015

-0.016

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Time

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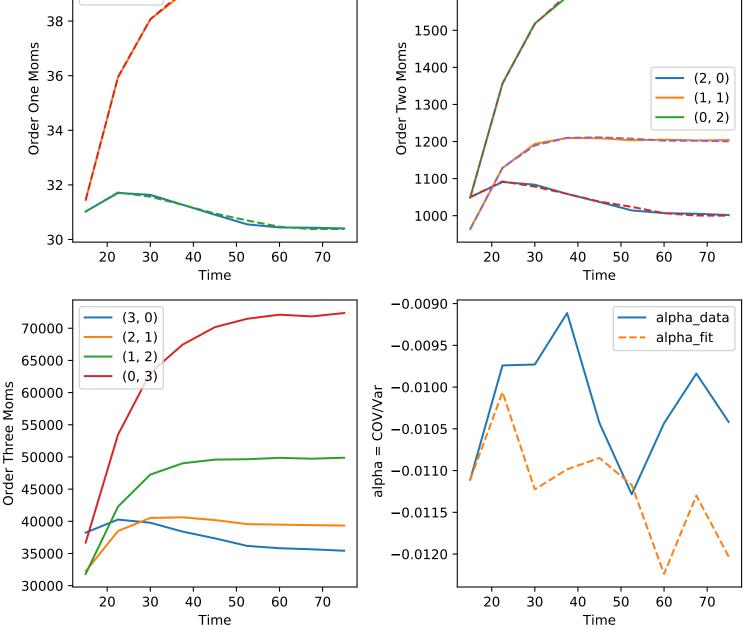
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Time

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Single_up | NLLA Single_up(#13): [2.3679, 3.9786, 0.1486, 0.1816, 0.0009924, 1.679e-14, 0.0000, 0.1098, 0.0812, 0.0011] (1, 0)(0, 1) Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)



Single_up | NLLA Single_up(#14): [3.2016, 4.0129, 0.2068, 0.1685, 0.001213, 0.0001131, 0.0000, 0.1496, 0.0718, 0.0000] (1, 0)(0, 1)**Order Two Moms** Order One Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0)(2, 1)-0.011(1, 2)(0, 3)Order Three Moms alpha = COV/Var-0.012 alpha_data alpha_fit -0.013 -0.014

Time

Time

Single_up | NLLA Single_up(#15): [2.0829, 4.0772, 0.1299, 0.1803, 0.0008789, 5.11e-05, 0.0000, 0.0960, 0.0802, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0100(3, 0)(2, 1)(1, 2)-0.0105(0, 3)= COV/Var-0.0110-0.0115alpha -0.0120-0.0125alpha data

alpha fit

Time

Order Three Moms

Time

Single_up | NLLA Single_up(#16): [2.6337, 3.9949, 0.1706, 0.1803, 0.001016, 7.152e-13, 0.0000, 0.1242, 0.0804, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0100(3, 0) alpha data (2, 1)alpha_fit (1, 2)-0.0105(0, 3)**Order Three Moms** -0.0110 -0.0115-0.0120

-0.0125

Time

Time

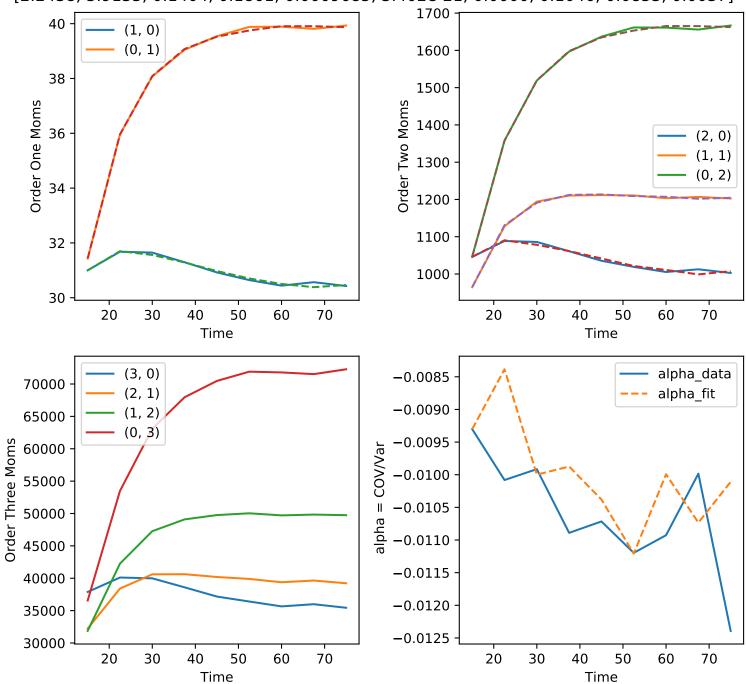
Single_up | NLLA Single_up(#17): [3.0158, 4.0031, 0.1960, 0.1796, 0.00115, 1.199e-05, 0.0000, 0.1422, 0.0798, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0095(3, 0)(2, 1)-0.0100(1, 2)-0.0105 (0, 3) COV/Var -0.0110-0.0115alpha -0.0120-0.0125alpha data -0.0130alpha fit -0.0135

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#18): [2.2438, 3.9133, 0.1404, 0.1861, 0.0009685, 3.402e-21, 0.0000, 0.1046, 0.0853, 0.0037]



Single_up | NLLA Single_up(#19): [2.6404, 4.1604, 0.1715, 0.1846, 0.001024, 1.617e-05, 0.0000, 0.1250, 0.0810, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0) -0.0100(2, 1)(1, 2)-0.0105 (0, 3)**Order Three Moms** COV/Var -0.0110 -0.0115-0.0120alpha data alpha fit

-0.0125

Time

Time

Single_up | NLLA Single_up(#20): [3.1622, 4.3061, 0.1930, 0.1801, 0.00135, 0.0001188, 0.0000, 0.1426, 0.0761, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha_data (2, 1)alpha_fit -0.010(1, 2) (0, 3)Order Three Moms alpha = COV/Var-0.012 -0.014-0.016

-0.018

Time

Time

Single_up | NLLA Single_up(#21): [2.6329, 3.7826, 0.1690, 0.1739, 0.00103, 1.354e-13, 0.0000, 0.1229, 0.0786, 0.0011] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha_data (2, 1)-0.0105 alpha fit (1, 2)(0, 3)-0.0110COV/Var -0.0115alpha -0.0120-0.0125-0.0130

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#22): [2.6387, 4.0415, 0.1627, 0.1764, 0.001163, 3.492e-05, 0.0000, 0.1217, 0.0767, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data -0.010(2, 1)alpha fit (1, 2)-0.011(0, 3)alpha = COV/Var-0.012 -0.013-0.014

-0.015

Time

Order Three Moms

Time

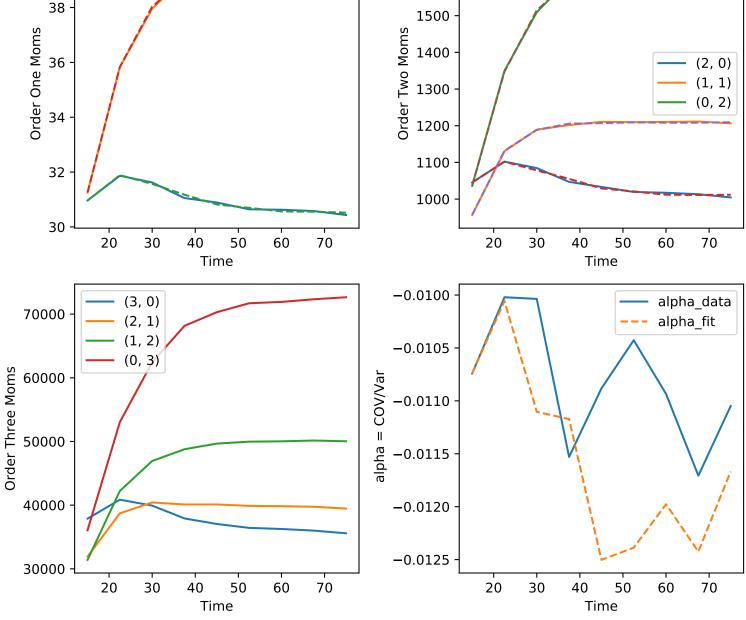
Single_up | NLLA Single_up(#23): [3.1882, 4.2334, 0.2010, 0.1857, 0.001268, 3.148e-05, 0.0000, 0.1463, 0.0806, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha_data (2, 1)alpha fit -0.010(1, 2)(0, 3)**Order Three Moms** -0.011alpha = COV/Var-0.012-0.013 -0.014

-0.015

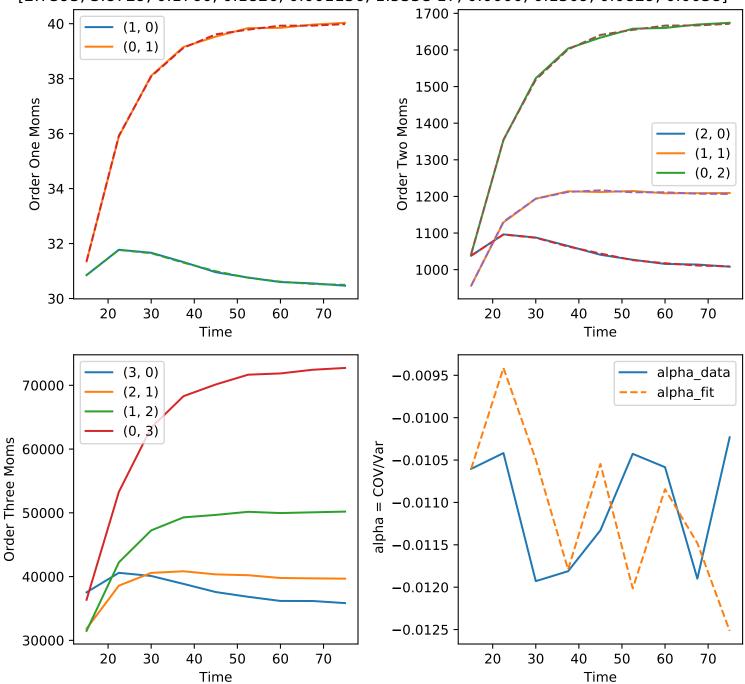
Time

Time

Single_up | NLLA Single_up(#24): [4.1609, 3.7906, 0.2770, 0.1769, 0.001433, 5.663e-15, 0.0000, 0.1973, 0.0792, 0.0039] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time



Single_up | NLLA Single_up(#25): [2.7393, 3.8729, 0.1760, 0.1826, 0.001136, 1.533e-17, 0.0000, 0.1309, 0.0829, 0.0038]



Single_up | NLLA Single_up(#26): [3.2592, 3.7981, 0.2170, 0.1791, 0.001227, 1.132e-15, 0.0000, 0.1583, 0.0808, 0.0046] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data -0.0095(2, 1)alpha fit (1, 2)(0, 3)-0.0100COV/Var -0.0105 alpha = -0.0110-0.0115

-0.0120

Time

Order Three Moms

Time

Single_up | NLLA Single_up(#27): [3.0341, 3.7371, 0.1953, 0.1824, 0.001272, 2.258e-13, 0.0000, 0.1457, 0.0836, 0.0070] (1, 0)(0, 1)04 Tago 1400 1300 1200 Order One Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0) alpha data (2, 1)-0.009alpha fit (1, 2)(0, 3)-0.010alpha = COV/Var-0.011-0.012-0.013

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#28): [3.1010, 3.6869, 0.2033, 0.1777, 0.001216, 3.249e-14, 0.0000, 0.1493, 0.0814, 0.0053] (1, 0)(0, 1) Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data -0.0095(2, 1)alpha fit (1, 2) -0.0100(0, 3)**Order Three Moms** = COV/Var-0.0105 -0.0110-0.0115-0.0120

-0.0125

Time

Time

Single_up | NLLA Single_up(#29): [3.5091, 4.2083, 0.2270, 0.1855, 0.001308, 2.28e-14, 0.0000, 0.1634, 0.0802, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0) -0.0100(2, 1)-0.0105 (1, 2)(0, 3)-0.0110**Order Three Moms** -0.0115-0.0120alpha -0.0125-0.0130-0.0135alpha data alpha fit -0.0140

Time

Time

Single_up | NLLA Single_up(#30): [3.3696, 4.0827, 0.2280, 0.1833, 0.001156, 6.257e-06, 0.0000, 0.1629, 0.0814, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data -0.0100(2, 1)alpha fit (1, 2)-0.0105(0, 3)Order Three Moms COV/Var -0.0110-0.0115alpha -0.0120-0.0125-0.0130

-0.0135

Time

Time

Single_up | NLLA Single_up(#31): [4.5997, 4.2142, 0.3181, 0.1897, 0.00135, 1.954e-05, 0.0000, 0.2209, 0.0850, 0.0000] 1700 40 (1, 0)(0, 1)1600 38 1500 Order One Moms **Order Two Moms** 1400 (2, 0)36 (1, 1)1300 (0, 2)34 1200 1100 32 1000 60 50 20 30 40 50 70 20 30 40 60 70 Time Time -0.0095(3, 0)alpha_data 70000 -0.0100(2, 1)alpha fit (1, 2)-0.0105(0, 3)COV/Var 60000 -0.0110-0.011550000 alpha -0.0120-0.012540000 -0.0130-0.013530000

Order Three Moms

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Time

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Time

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Single_up | NLLA Single_up(#32): [4.4739, 4.0065, 0.3091, 0.1773, 0.001325, 4.764e-05, 0.0000, 0.2151, 0.0787, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data -0.0100(2, 1) alpha fit (1, 2)-0.0105(0, 3)-0.0110-0.0115alpha -0.0120-0.0125

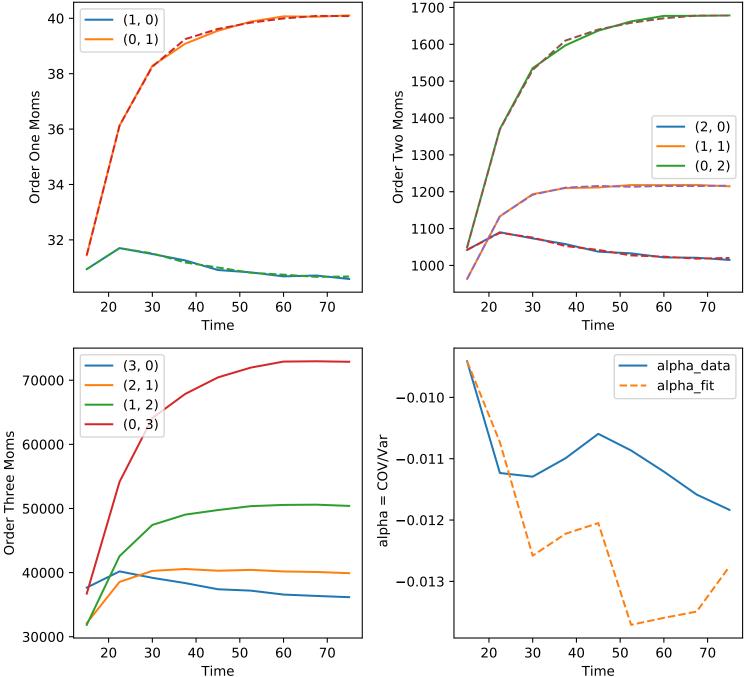
-0.0130

Time

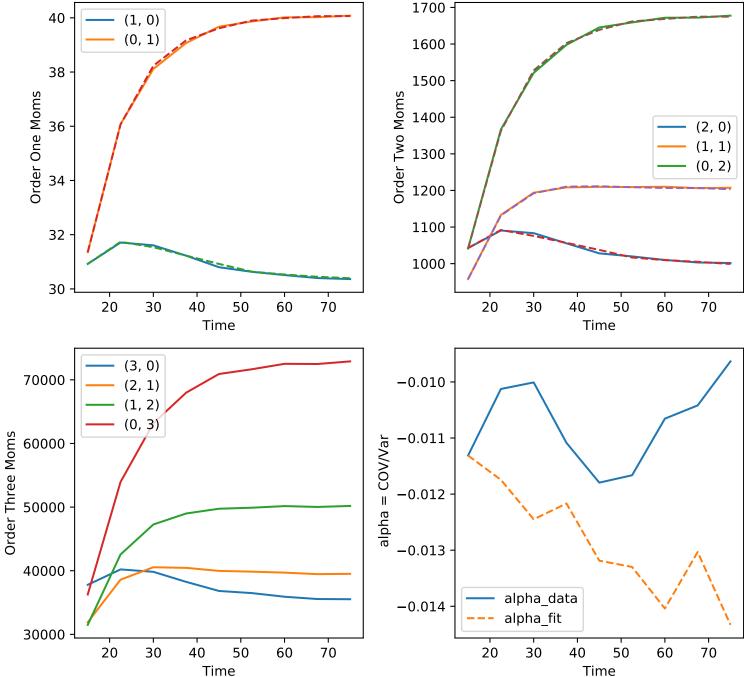
Order Three Moms

Time

Single_up | NLLA Single_up(#33): [3.7016, 4.2082, 0.2530, 0.1783, 0.001079, 0.0002032, 0.0000, 0.1751, 0.0796, 0.0000] 1700 40 (1, 0)(0, 1)1600 38



Single_up | NLLA Single_up(#34): [2.8466, 4.1607, 0.1808, 0.1770, 0.001114, 9.015e-05, 0.0000, 0.1312, 0.0759, 0.0000] 1700 40 (1, 0)(0, 1)1600



Single_up | NLLA Single_up(#35): [2.6944, 3.9468, 0.1753, 0.1883, 0.001075, 1.565e-20, 0.0000, 0.1288, 0.0860, 0.0048] (1, 0) (0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)(2, 1)-0.0090(1, 2)(0, 3)-0.0095Order Three Moms COV/Var -0.0100alpha -0.0105-0.0110

-0.0115

Time

alpha data

Time

alpha fit

Single_up | NLLA Single_up(#36): [3.0506, 4.0874, 0.1923, 0.1798, 0.001192, 2.817e-15, 0.0000, 0.1393, 0.0775, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0) alpha_data -0.0095(2, 1)alpha fit (1, 2)-0.0100(0, 3)Order Three Moms -0.0105 -0.0110-0.0115alpha -0.0120-0.0125

-0.0130

Time

Time

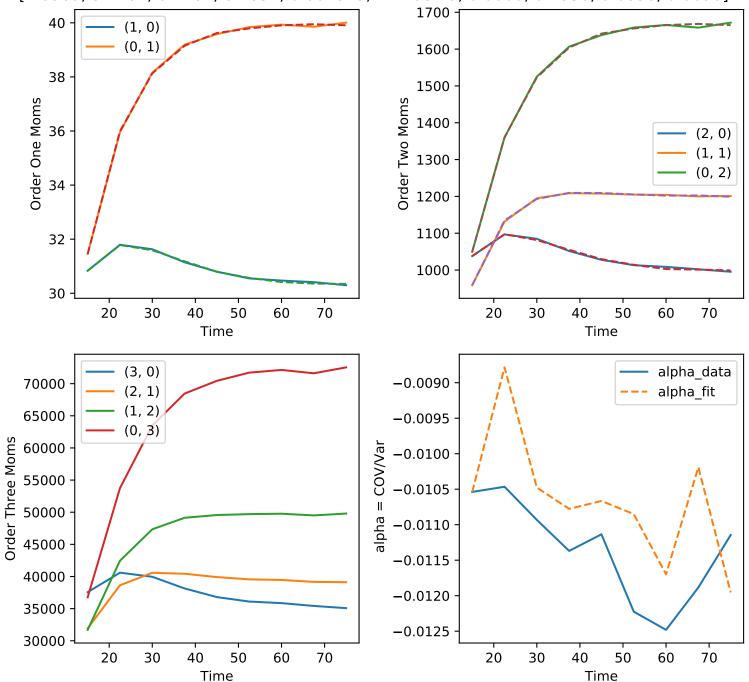
Single_up | NLLA Single_up(#37): [3.2643, 3.6352, 0.2178, 0.1776, 0.00122, 1.549e-18, 0.0000, 0.1587, 0.0815, 0.0068] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha_data -0.0085(2, 1)alpha fit (1, 2)-0.0090(0, 3)**Order Three Moms** -0.0095COV/Var -0.0100-0.0105 alpha : -0.0110-0.0115

-0.0120

Time

Time

Single_up | NLLA Single_up(#38): [2.8969, 3.7167, 0.1787, 0.1854, 0.001315, 2.476e-19, 0.0000, 0.1350, 0.0856, 0.0090]



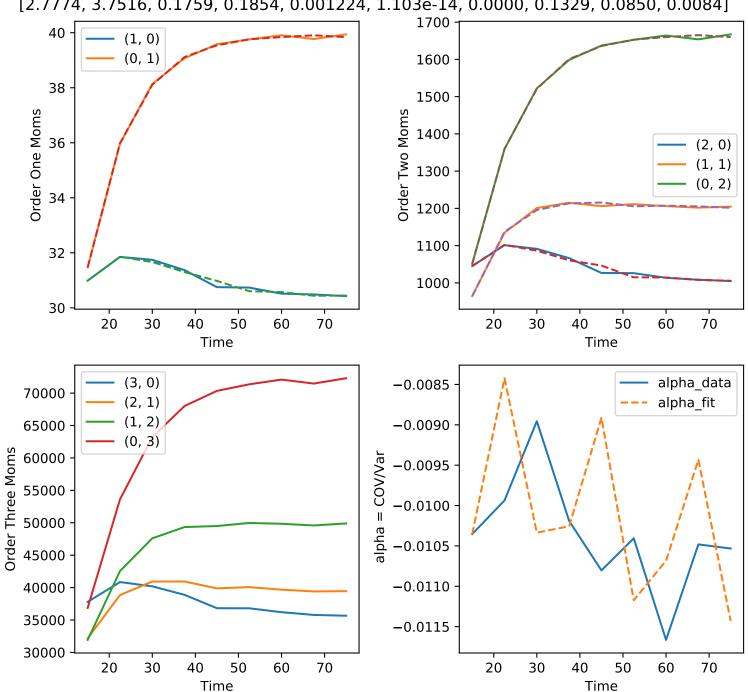
Single_up | NLLA Single_up(#39): [3.3112, 3.9823, 0.2162, 0.1710, 0.001167, 0.000106, 0.0000, 0.1536, 0.0748, 0.0000] (1, 0)(0, 1)**Order Two Moms** Order One Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0)-0.010(2, 1) (1, 2)-0.011(0, 3)Order Three Moms alpha = COV/Var-0.012 -0.013-0.014alpha data -0.015

Time

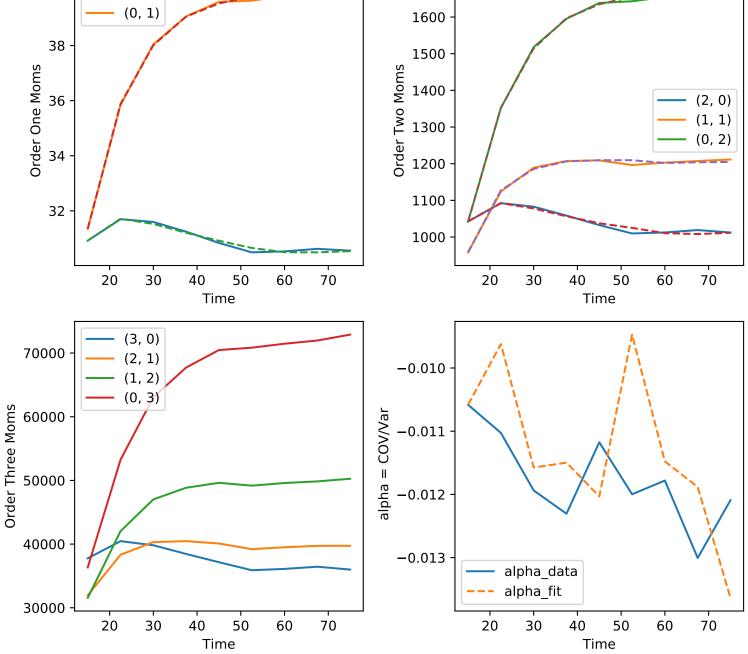
alpha fit

Time

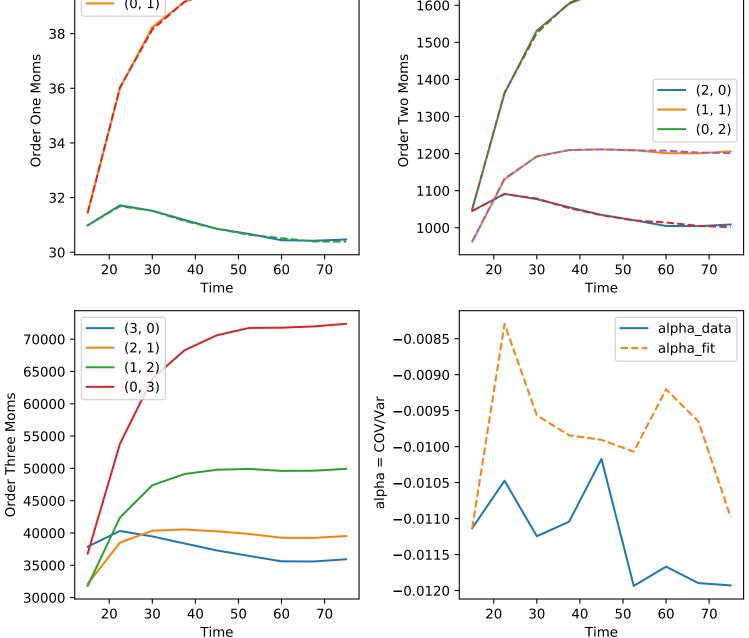
Single_up | NLLA Single_up(#40): [2.7774, 3.7516, 0.1759, 0.1854, 0.001224, 1.103e-14, 0.0000, 0.1329, 0.0850, 0.0084]



Single_up | NLLA Single_up(#41): [3.1523, 3.9421, 0.2122, 0.1849, 0.001128, 1.781e-14, 0.0000, 0.1533, 0.0852, 0.0013] (1, 0) (0, 1)Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time



Single_up | NLLA Single_up(#42): [2.6812, 3.9450, 0.1783, 0.1926, 0.00105, 8.755e-17, 0.0000, 0.1315, 0.0897, 0.0053] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)



Single_up | NLLA Single_up(#43): [4.8013, 3.5919, 0.3301, 0.1803, 0.00157, 1.133e-15, 0.0000, 0.2346, 0.0831, 0.0095] 1700 40 (1, 0) (0, 1)1600 38 1500 Order One Moms **Order Two Moms** 1400 36 (2, 0)(1, 1)1300 (0, 2)34 1200 1100 32 1000 30 20 30 40 50 60 70 20 30 40 50 60 70 Time Time -0.0080(3, 0)alpha_data 70000 (2, 1) alpha_fit -0.0085(1, 2)(0, 3)-0.009060000 COV/Var -0.0095alpha = 50000 -0.0100-0.010540000 -0.0110-0.0115

Order Three Moms

30000

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Time

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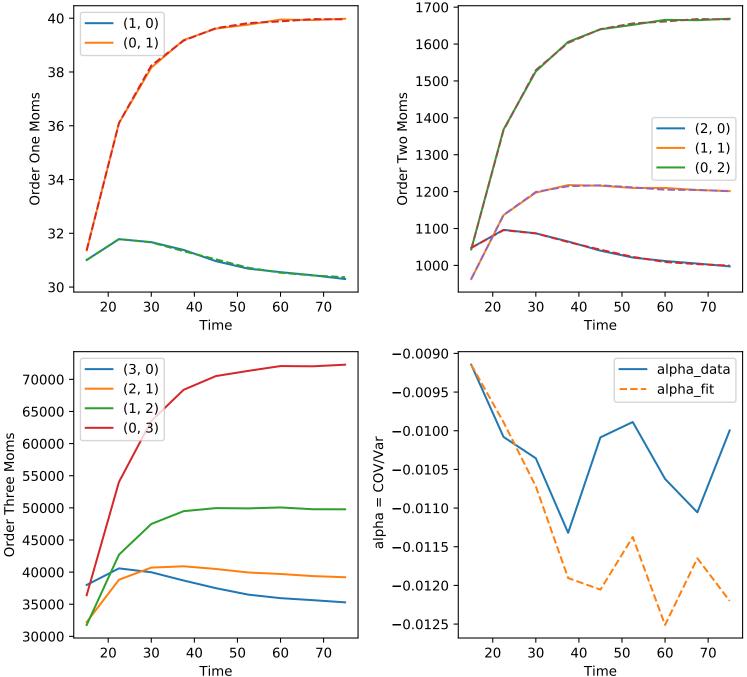
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Time

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Single_up | NLLA Single_up(#44): [2.0305, 4.1975, 0.1174, 0.1877, 0.001027, 2.497e-17, 0.0000, 0.0909, 0.0816, 0.0014] 1700 40 (1, 0)(0, 1)1600 38



Single_up | NLLA Single_up(#45): [3.6828, 4.0004, 0.2388, 0.1820, 0.001379, 2.498e-14, 0.0000, 0.1723, 0.0800, 0.0022] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)-0.0100(2, 1)(1, 2)-0.0105(0, 3)**Order Three Moms** COV/Var -0.0110-0.0115alpha -0.0120-0.0125-0.0130alpha data

-0.0135

Time

alpha fit

Time

Single_up | NLLA Single_up(#46): [3.5314, 4.0959, 0.2262, 0.1801, 0.001352, 4.904e-15, 0.0000, 0.1637, 0.0778, 0.0000] (1, 0)(0, 1)Order Two Moms Order One Moms (2, 0)(1, 1)(0, 2)Time Time -0.009(3, 0)alpha_data (2, 1)alpha_fit (1, 2)-0.010(0, 3)**Order Three Moms** alpha = COV/Var-0.011-0.012-0.013-0.014

-0.015

Time

Time

Single_up | NLLA Single_up(#47): [3.4521, 4.1660, 0.2201, 0.1840, 0.001347, 2.445e-15, 0.0000, 0.1601, 0.0796, 0.0001] (1, 0)(0, 1)Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0) -0.010(2, 1)(1, 2)-0.011(0, 3)**Order Three Moms** alpha = COV/Var-0.012-0.013-0.014

-0.015

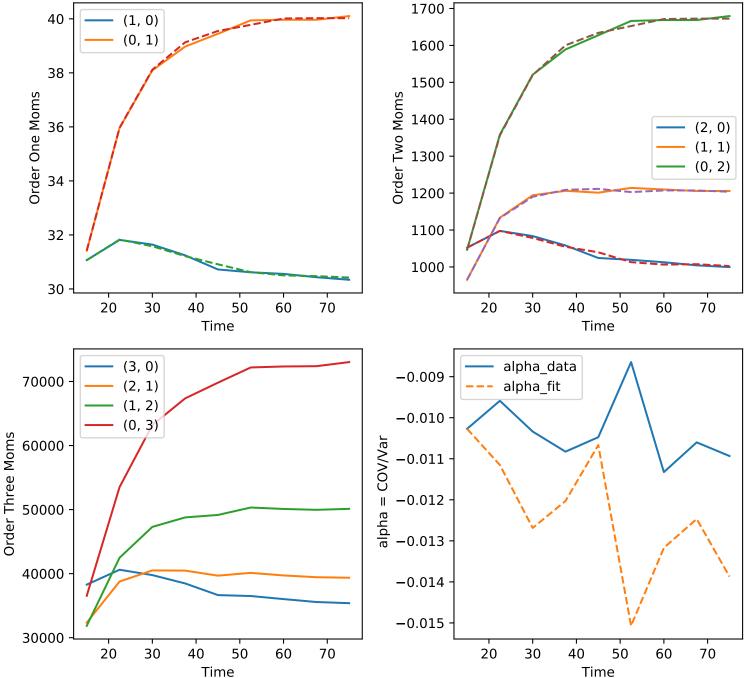
Time

alpha data

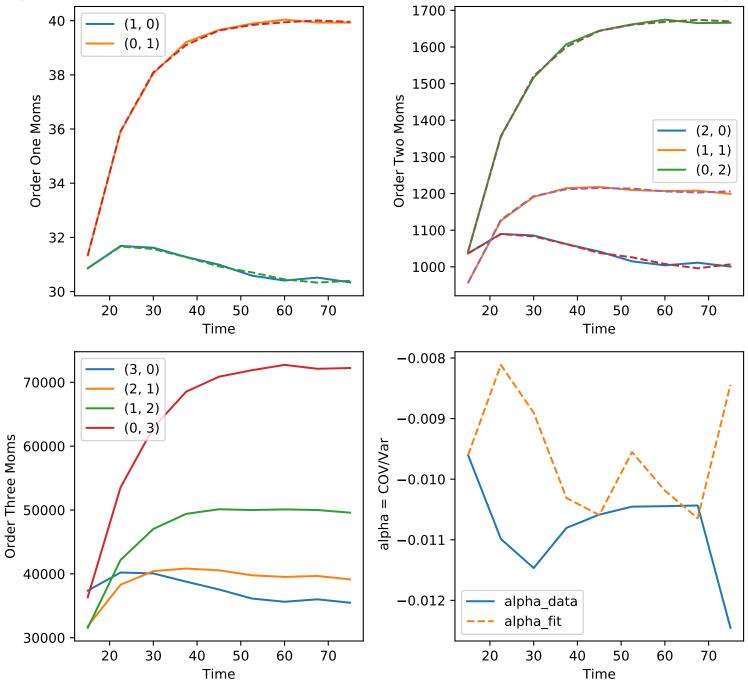
Time

alpha fit

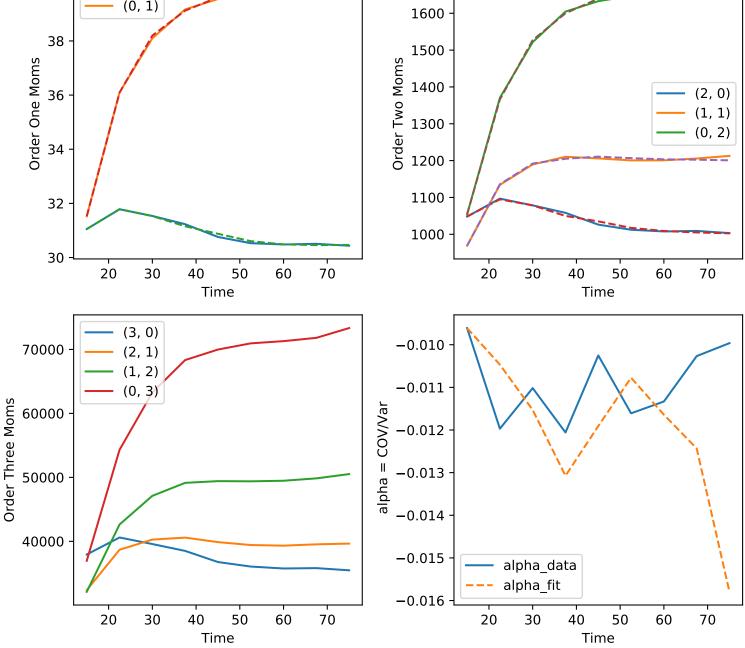
Single_up | NLLA Single_up(#48): [3.1772, 3.9892, 0.2047, 0.1738, 0.001195, 2.975e-05, 0.0000, 0.1475, 0.0752, 0.0000] 1700 40 (1, 0)(0, 1)1600 38



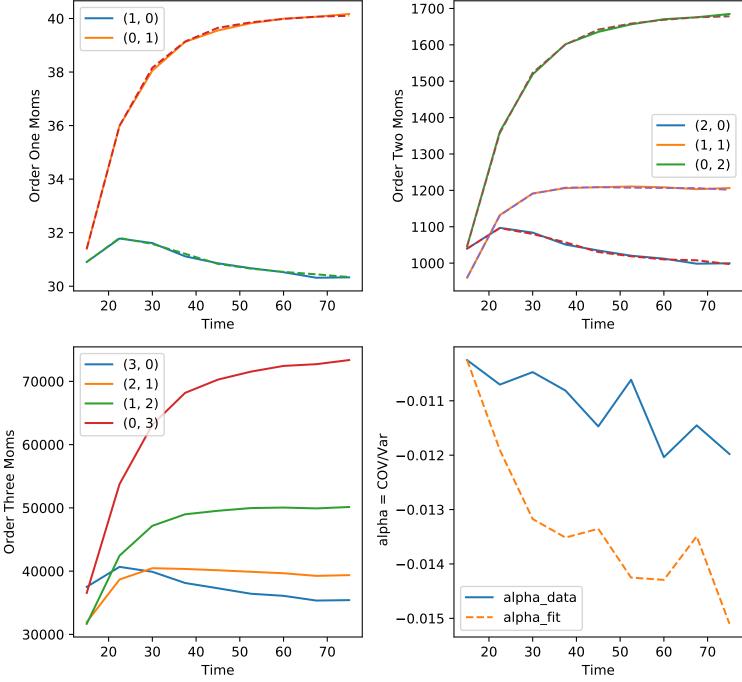
Single_up | NLLA Single_up(#49): [2.2585, 3.7866, 0.1438, 0.1858, 0.001017, 1.078e-15, 0.0000, 0.1095, 0.0862, 0.0064]



Single_up | NLLA Single_up(#50): [3.2295, 4.1290, 0.2089, 0.1839, 0.001216, 1.069e-18, 0.0000, 0.1508, 0.0807, 0.0000] 1700 -(1, 0)(0, 1)Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time



Single_up | NLLA Single_up(#51): [3.1536, 4.0100, 0.2020, 0.1727, 0.001259, 5.357e-05, 0.0000, 0.1480, 0.0744, 0.0000] 1700 -(1, 0)40 (0, 1)1600 38 1500 Order One Moms **Order Two Moms** 1400 (2, 0)36 (1, 1)1300 (0, 2)34 1200 1100 32 1000 30 20 30 40 50 60 70 20 30 40 50 60 70 Time Time (3, 0)70000 (2, 1)-0.011(1, 2) (0, 3)alpha = COV/Var60000 -0.012 50000 -0.013 -0.014



Single_up | NLLA Single_up(#52): [2.0697, 4.2474, 0.1320, 0.1915, 0.000871, 2.896e-06, 0.0000, 0.0982, 0.0854, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0095(3, 0)alpha data (2, 1)alpha fit -0.0100(1, 2)(0, 3)-0.0105= COV/Var-0.0110-0.0115-0.0120-0.0125

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#53): [4.3018, 4.0763, 0.2979, 0.1745, 0.001285, 0.000126, 0.0000, 0.2078, 0.0766, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)-0.010 (2, 1)(1, 2)-0.011(0, 3)alpha = COV/Var-0.012 -0.013-0.014alpha data alpha fit

Order Three Moms

Time

Time

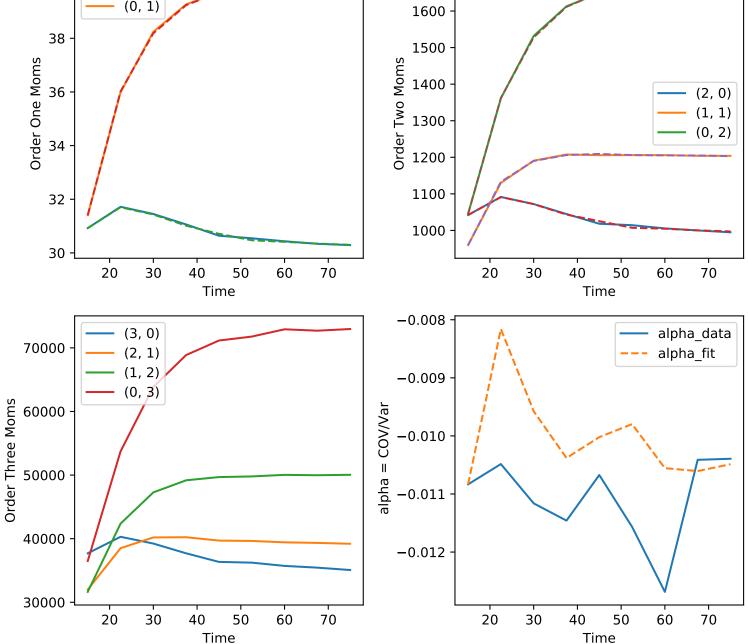
Single_up | NLLA Single_up(#54): [2.8947, 3.6568, 0.1978, 0.1758, 0.001034, 2.173e-15, 0.0000, 0.1434, 0.0810, 0.0048] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data -0.008(2, 1)alpha fit (1, 2)(0, 3)-0.009Order Three Moms alpha = COV/Var-0.010-0.011

-0.012

Time

Time

Single_up | NLLA Single_up(#55): [3.4203, 3.7644, 0.2280, 0.1865, 0.001267, 4.523e-14, 0.0000, 0.1653, 0.0867, 0.0077] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)



Single_up | NLLA Single_up(#56): [3.6237, 3.7838, 0.2455, 0.1862, 0.001283, 6.206e-16, 0.0000, 0.1772, 0.0864, 0.0069] 1700 40 (1, 0)(0, 1)1600 38 1500 Order One Moms **Order Two Moms** 1400 36 (2, 0)(1, 1)1300 (0, 2)34 1200 1100 32 1000 30 20 30 40 50 60 70 20 30 40 50 60 70 Time Time (3, 0)alpha data -0.008070000 (2, 1) alpha fit (1, 2)-0.0085(0, 3)60000 COV/Var -0.0090-0.009550000 alpha -0.0100-0.010540000 -0.0110

-0.0115

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Time

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Order Three Moms

30000

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Time

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Single_up | NLLA Single_up(#57): [4.1828, 3.9772, 0.2743, 0.1727, 0.001474, 1.66e-14, 0.0000, 0.1955, 0.0734, 0.0000] (1, 0)(0, 1) Order Two Moms 1300 1300 1200 Order One Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0)(2, 1)-0.010(1, 2)(0, 3)-0.011alpha = COV/Var-0.012-0.013-0.014alpha data

-0.015

alpha fit

Time

Order Three Moms

Time

Single_up | NLLA Single_up(#58): [4.0844, 4.0483, 0.2682, 0.1854, 0.001439, 1.522e-13, 0.0000, 0.1912, 0.0819, 0.0026] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0095alpha data (3, 0)(2, 1)alpha fit -0.0100(1, 2)(0, 3)-0.0105Order Three Moms -0.0110-0.0115alpha -0.0120-0.0125-0.0130

Time

Time

Single_up | NLLA Single_up(#59): [3.3726, 3.8449, 0.2215, 0.1863, 0.001318, 1.781e-14, 0.0000, 0.1630, 0.0842, 0.0076] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha_data -0.0085(2, 1)alpha fit (1, 2)-0.0090(0, 3)Order Three Moms = COV/Var-0.0095 -0.0100-0.0105-0.0110

-0.0115

Time

Time

Single_up | NLLA Single_up(#60): [3.5517, 3.9519, 0.2297, 0.1742, 0.00134, 5.554e-12, 0.0000, 0.1661, 0.0753, 0.0000] (1, 0)(0, 1)Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data -0.0100(2, 1)alpha fit (1, 2) -0.0105(0, 3)-0.0110COV/Var -0.0115-0.0120-0.0125-0.0130-0.0135

-0.0140

Time

Order Three Moms

Time

Single_up | NLLA Single_up(#61): [2.7921, 3.8557, 0.1746, 0.1823, 0.00123, 3.629e-15, 0.0000, 0.1314, 0.0815, 0.0057] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)-0.0095(2, 1)(1, 2)-0.0100(0, 3)COV/Var -0.0105 -0.0110alpha -0.0115-0.0120-0.0125

-0.0130

alpha data

Time

alpha fit

Order Three Moms

Time

Single_up | NLLA Single_up(#62): [3.5928, 3.6609, 0.2355, 0.1759, 0.001388, 6.067e-14, 0.0000, 0.1722, 0.0793, 0.0070] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data -0.0095(2, 1)alpha fit (1, 2)-0.0100(0, 3)COV/Var -0.0105 alpha -0.0110-0.0115-0.0120

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#63): [3.2663, 3.6859, 0.2133, 0.1774, 0.001263, 2.923e-16, 0.0000, 0.1558, 0.0802, 0.0068] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0085(3, 0)alpha data (2, 1)alpha fit -0.0090(1, 2)(0, 3)-0.0095Order Three Moms -0.0100-0.0105alpha -0.0110-0.0115

-0.0120

Time

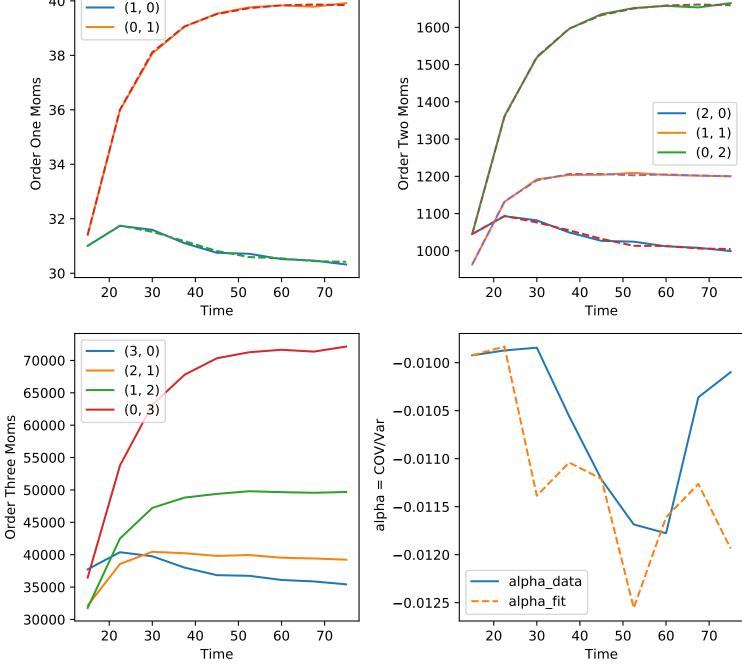
Time

Single_up | NLLA Single_up(#64): [3.8578, 3.9870, 0.2564, 0.1725, 0.001347, 1.428e-14, 0.0000, 0.1834, 0.0731, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data (2, 1)alpha fit (1, 2)-0.010(0, 3)Order Three Moms alpha = COV/Var-0.011-0.012-0.013

Time

Time

Single_up | NLLA Single_up(#65): [2.9948, 4.0754, 0.1965, 0.1878, 0.001163, 2.331e-15, 0.0000, 0.1438, 0.0841, 0.0020] (1, 0)(0, 1) Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0) -0.0100(2, 1)(1, 2)(0, 3)-0.0105COV/Var -0.0110-0.0115

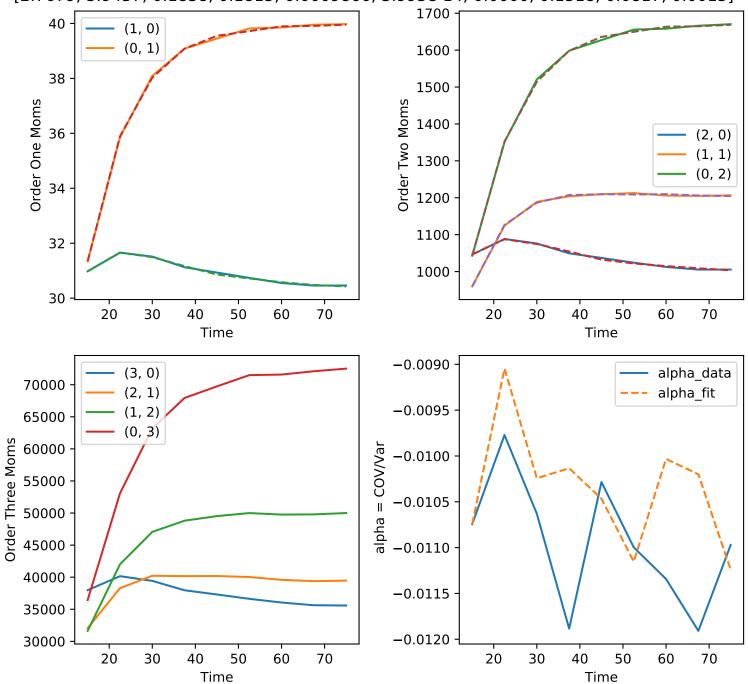


Single_up | NLLA Single_up(#66): [2.8090, 4.0405, 0.1846, 0.1780, 0.001003, 4.401e-05, 0.0000, 0.1319, 0.0783, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0) -0.0100(2, 1)(1, 2)-0.0105 (0, 3)Order Three Moms COV/Var -0.0110-0.0115 alpha : -0.0120-0.0125alpha data alpha fit -0.0130

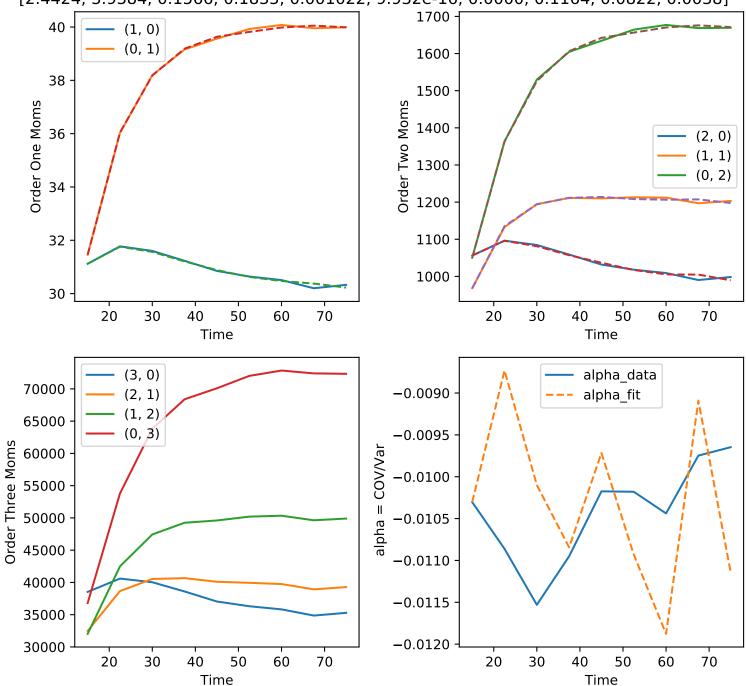
Time

Time

Single_up | NLLA Single_up(#67): [2.7679, 3.9437, 0.1838, 0.1815, 0.0009866, 3.993e-14, 0.0000, 0.1318, 0.0817, 0.0015]



Single_up | NLLA Single_up(#68): [2.4424, 3.9384, 0.1566, 0.1835, 0.001022, 9.932e-16, 0.0000, 0.1164, 0.0822, 0.0038]



Single_up | NLLA Single_up(#69): [2.6435, 3.9342, 0.1703, 0.1734, 0.001038, 5.491e-05, 0.0000, 0.1244, 0.0770, 0.0000] 1700 (1, 0)40 (0, 1)1600 38 1500 Order One Moms **Order Two Moms** 1400 (2, 0)36 (1, 1)1300 (0, 2)34 1200 1100 32 1000 30 20 30 40 50 60 70 20 30 40 50 60 70 Time Time -0.0100(3, 0)70000 (2, 1)-0.0105(1, 2) -0.0110(0, 3)60000 COV/Var -0.0115-0.0120 50000 alpha -0.0125-0.013040000 -0.0135alpha data -0.0140alpha fit

Order Three Moms

30000

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Time

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Time

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Single_up | NLLA Single_up(#70): [2.9414, 4.1621, 0.1841, 0.1694, 0.001146, 0.0002232, 0.0000, 0.1328, 0.0724, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.010(3, 0)alpha data (2, 1)alpha fit -0.011(1, 2)(0, 3)Order Three Moms -0.012alpha = COV/Var-0.013-0.014-0.015-0.016

-0.017

Time

Time

Single_up | NLLA Single_up(#71): [2.6626, 4.0376, 0.1682, 0.1753, 0.001078, 4.421e-05, 0.0000, 0.1231, 0.0757, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha_data (2, 1) alpha_fit -0.0105(1, 2)(0, 3)-0.0110COV/Var -0.0115-0.0120alpha -0.0125

-0.0130

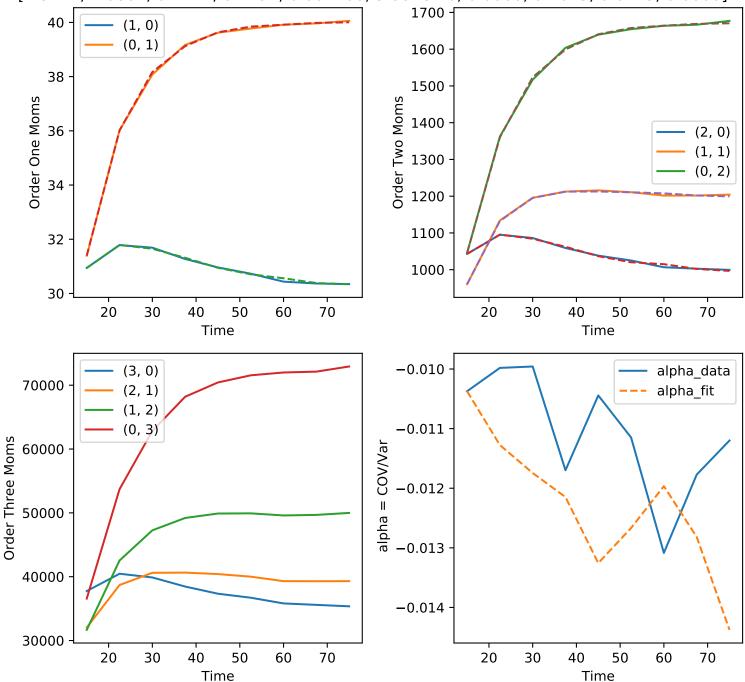
-0.0135

Time

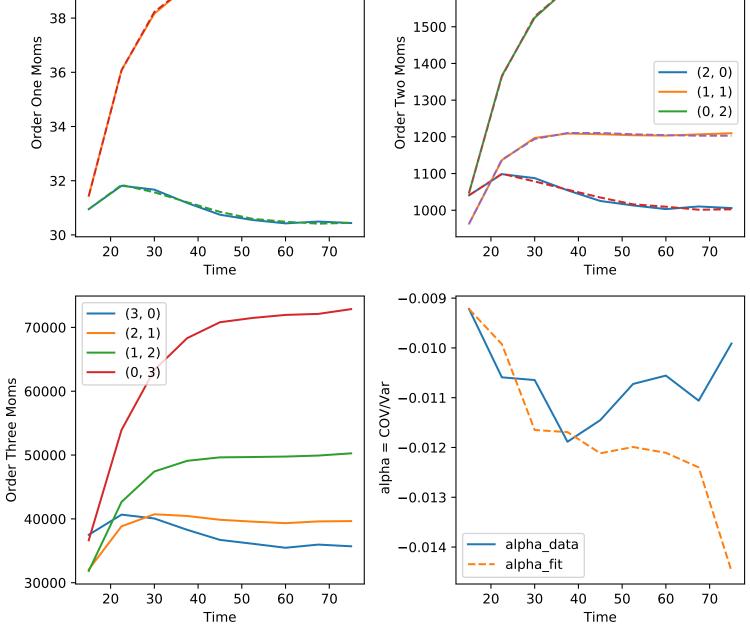
Order Three Moms

Time

Single_up | NLLA Single_up(#72): [2.3772, 4.0862, 0.1421, 0.1794, 0.001108, 5.884e-16, 0.0000, 0.1075, 0.0773, 0.0000] 1700 40 (1, 0)(0, 1)1600



Single_up | NLLA Single_up(#73): [3.3330, 4.0151, 0.2132, 0.1828, 0.001342, 2.147e-13, 0.0000, 0.1567, 0.0800, 0.0032] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2). 70 Time Time



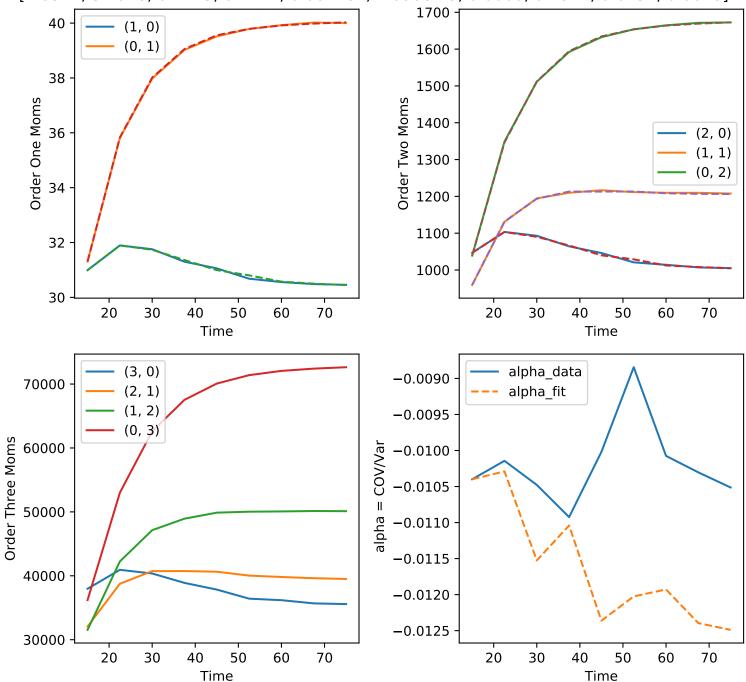
Single_up | NLLA Single_up(#74): [2.8302, 3.8943, 0.1880, 0.1715, 0.001006, 1.89e-05, 0.0000, 0.1347, 0.0749, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0095(3, 0)(2, 1)-0.0100(1, 2)(0, 3)Order Three Moms = COV/Var-0.0105-0.0110-0.0115-0.0120alpha data alpha fit

-0.0125

Time

Time

Single_up | NLLA Single_up(#75): [2.8324, 3.7948, 0.1775, 0.1721, 0.001187, 4.038e-13, 0.0000, 0.1314, 0.0752, 0.0028]



Single_up | NLLA Single_up(#76): [3.0238, 3.6759, 0.1998, 0.1796, 0.001181, 6.939e-17, 0.0000, 0.1466, 0.0822, 0.0075] 1700 40 (1, 0)(0, 1)1600 38 1500 Order One Moms **Order Two Moms** 1400 36 (2, 0)(1, 1)1300 (0, 2)34 1200 1100 32 1000 30 60 20 40 50 70 20 30 40 50 60 70 30 Time Time -0.0080(3, 0)alpha data 70000 (2, 1) alpha_fit -0.0085(1, 2)(0, 3)-0.0090Order Three Moms COV/Var 60000 -0.0095 50000 alpha : -0.0100-0.010540000 -0.0110-0.0115 30000

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Time

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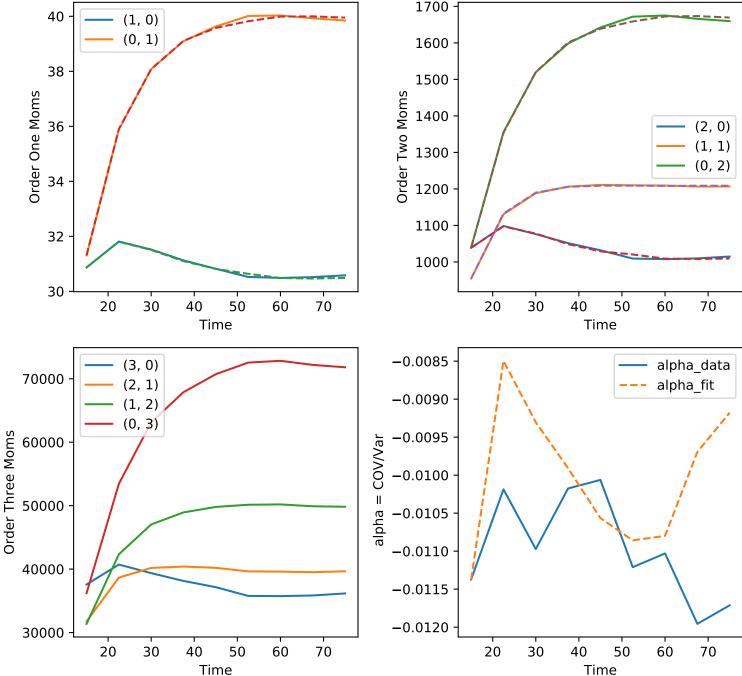
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Time

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Single_up | NLLA Single_up(#77): [4.1921, 3.6939, 0.2857, 0.1854, 0.001424, 9.209e-18, 0.0000, 0.2045, 0.0862, 0.0088] 1700 40 (1, 0)(0, 1)1600 38 1500 Order One Moms **Order Two Moms** 1400 36 (2, 0)(1, 1)1300 (0, 2)34 1200 1100 32 1000 30 20 30 40 50 60 70 20 30 40 50 60 70 Time Time -0.0085(3, 0)alpha data 70000 (2, 1)alpha_fit -0.0090(1, 2)(0, 3)-0.009560000 COV/Var -0.010050000 -0.0105



Single_up | NLLA Single_up(#78): [4.0035, 3.8657, 0.2684, 0.1825, 0.001369, 7.404e-22, 0.0000, 0.1912, 0.0825, 0.0044] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0090(3, 0) alpha data (2, 1)alpha fit -0.0095(1, 2)(0, 3)= COV/Var-0.0100-0.0105alpha -0.0110-0.0115

-0.0120

Time

Order Three Moms

Time

Single_up | NLLA Single_up(#79): [3.1242, 4.0200, 0.2001, 0.1775, 0.001191, 5.891e-16, 0.0000, 0.1451, 0.0771, 0.0000] (1, 0)(0, 1)Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2). 70 Time Time (3, 0)-0.010 (2, 1)(1, 2)(0, 3)-0.011Order Three Moms alpha = COV/Var-0.012-0.013alpha data alpha fit -0.014

Time

Time

Single_up | NLLA Single_up(#80): [4.4707, 4.0678, 0.3060, 0.1785, 0.001407, 3.395e-05, 0.0000, 0.2151, 0.0775, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0100(3, 0)alpha data (2, 1)alpha fit -0.0105(1, 2)(0, 3)-0.0110**Order Three Moms** COV/Var -0.0115alpha = -0.0120-0.0125-0.0130-0.0135

Time

Time

Single_up | NLLA Single_up(#81): [3.5008, 4.0574, 0.2400, 0.1837, 0.001192, 1.581e-17, 0.0000, 0.1723, 0.0811, 0.0015] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)-0.0095 (2, 1)(1, 2)(0, 3)-0.0100Order Three Moms alpha = COV/Var-0.0105 -0.0110-0.0115alpha data

Time

alpha fit

Time

Single_up | NLLA Single_up(#82): [3.4133, 3.9780, 0.2238, 0.1766, 0.001237, 6.882e-16, 0.0000, 0.1607, 0.0766, 0.0008] (1, 0)(0, 1)Order Two Moms 1300 1300 1200 Order One Moms (2, 0)(1, 1)(0, 2)Time Time -0.009(3, 0)alpha data (2, 1)alpha fit (1, 2)-0.010(0, 3)Order Three Moms alpha = COV/Var-0.011 -0.012-0.013

Time

Time

Single_up | NLLA Single_up(#83): [4.0550, 4.0527, 0.2645, 0.1740, 0.001429, 7.04e-05, 0.0000, 0.1878, 0.0751, 0.0000] 1700 -40 (1, 0)(0, 1)1600 38 1500 Order One Moms **Order Two Moms** 1400 36 (2, 0)(1, 1)1300 (0, 2)34 1200 1100 32 1000 30 60 20 40 50 70 40 50 60 30 20 70 30 Time Time -0.010(3, 0) alpha_data 70000 (2, 1)alpha_fit (1, 2) -0.011(0, 3)60000 alpha = COV/Var-0.012 50000 -0.013-0.01440000 -0.015

Order Three Moms

30000

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Time

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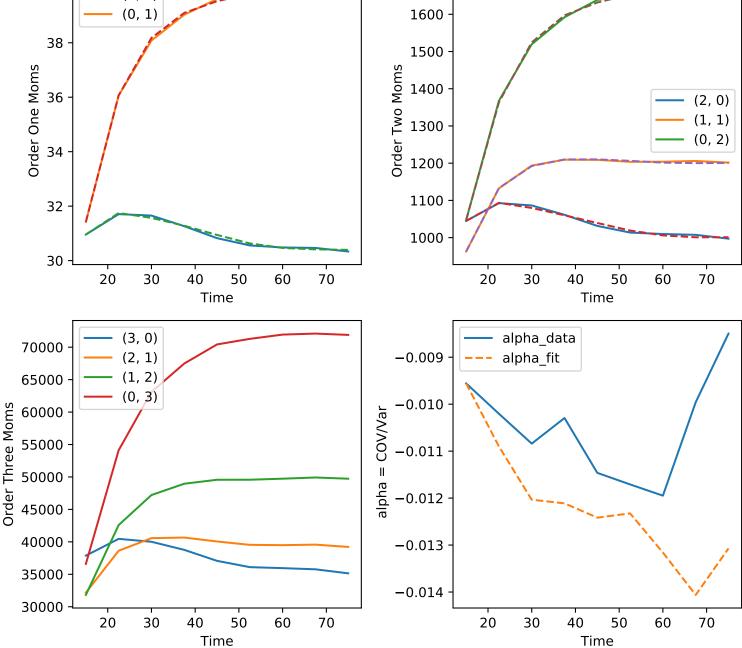
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Time

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Single_up | NLLA Single_up(#84): [2.4459, 4.2037, 0.1500, 0.1836, 0.001092, 2.537e-05, 0.0000, 0.1124, 0.0791, 0.0000] (1, 0)(0, 1)Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0) alpha_data (2, 1)-0.009alpha_fit



Single_up | NLLA Single_up(#85): [3.8342, 3.8873, 0.2561, 0.1747, 0.00132, 4.433e-18, 0.0000, 0.1825, 0.0770, 0.0008] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.010(3, 0)alpha_data (2, 1) alpha_fit (1, 2)-0.011(0, 3)Order Three Moms alpha = COV/Var-0.012 -0.013 -0.014

Time

Time

Single_up | NLLA Single_up(#86): [3.5009, 4.0560, 0.2260, 0.1790, 0.001351, 1.992e-14, 0.0000, 0.1644, 0.0777, 0.0000] (1, 0)(0, 1)Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0)(2, 1)-0.011(1, 2)(0, 3)Order Three Moms alpha = COV/Var -0.012-0.013-0.014alpha data

-0.015

Time

alpha fit

Time

Single_up | NLLA Single_up(#87): [3.1043, 3.8481, 0.2064, 0.1840, 0.001134, 6.097e-14, 0.0000, 0.1494, 0.0841, 0.0042] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data -0.0085(2, 1)alpha fit (1, 2)-0.0090(0, 3)**Order Three Moms** COV/Var -0.0095-0.0100alpha -0.0105-0.0110-0.0115

-0.0120

Time

Time

Single_up | NLLA Single_up(#88): [3.0828, 4.1194, 0.1963, 0.1815, 0.001201, 2.148e-05, 0.0000, 0.1425, 0.0792, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0) (2, 1)-0.0105(1, 2)-0.0110(0, 3)Order Three Moms COV/Var -0.0115 -0.0120alpha -0.0125-0.0130alpha data

-0.0135

Time

alpha fit

Time

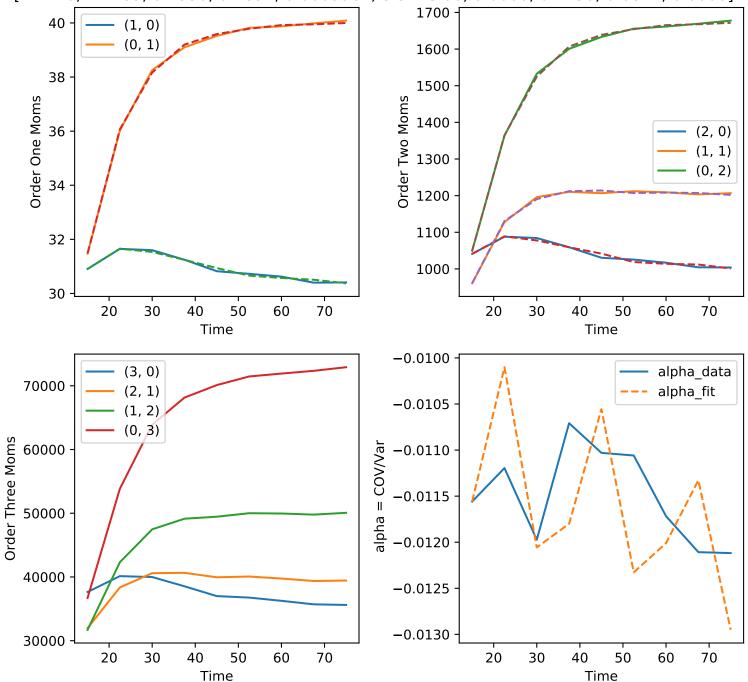
Single_up | NLLA Single_up(#89): [3.0951, 3.5161, 0.1967, 0.1779, 0.001334, 3.135e-16, 0.0000, 0.1473, 0.0818, 0.0109] (1, 0)(0, 1)Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2). 70 Time Time (3, 0)alpha data (2, 1)alpha_fit -0.008(1, 2)(0, 3)Order Three Moms alpha = COV/Var-0.009 -0.010-0.011

-0.012

Time

Time

Single_up | NLLA Single_up(#90): [2.4120, 4.1189, 0.1550, 0.1851, 0.0009962, 8.372e-06, 0.0000, 0.1150, 0.0824, 0.0000] 1700 40 (1, 0)(0, 1)



Single_up | NLLA Single_up(#91): [3.7273, 4.1076, 0.2483, 0.1863, 0.001318, 1.307e-14, 0.0000, 0.1780, 0.0827, 0.0013] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)-0.0100(2, 1)(1, 2)(0, 3)-0.0105Order Three Moms COV/Var -0.0110alpha -0.0115-0.0120alpha data

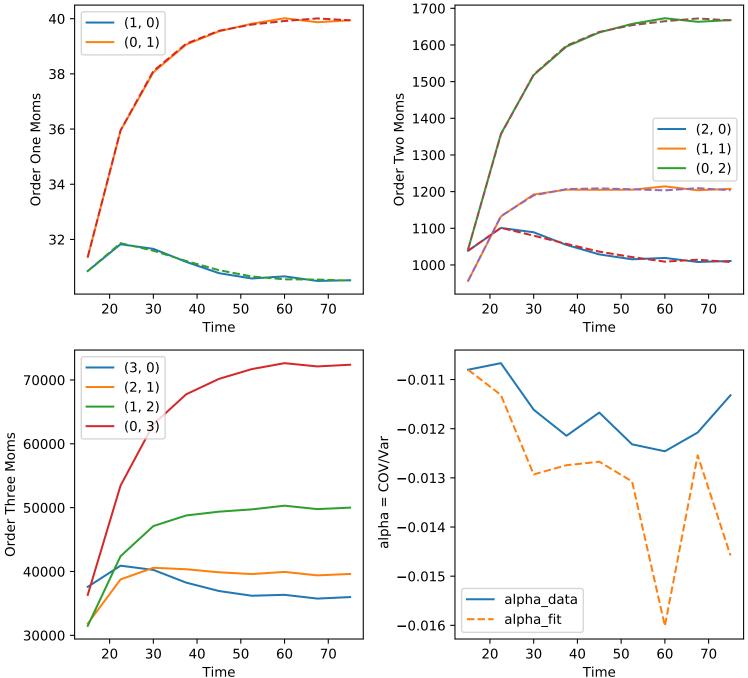
-0.0125

Time

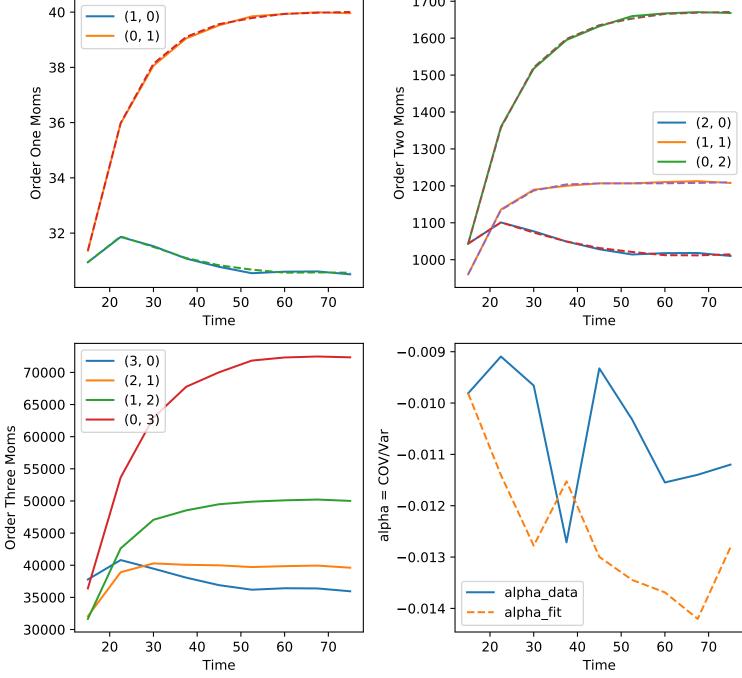
alpha fit

Time

Single_up | NLLA Single_up(#92): [3.8179, 4.0278, 0.2492, 0.1805, 0.001428, 2.773e-21, 0.0000, 0.1804, 0.0795, 0.0004] 1700 40 (1, 0)(0, 1) 1600



Single_up | NLLA Single_up(#93): [5.0207, 4.0709, 0.3424, 0.1790, 0.001611, 4.228e-16, 0.0000, 0.2418, 0.0773, 0.0000] 1700 40 (1, 0)(0, 1) 1600 38 1500 Order Two Moms 1300 1300 1200 Order One Moms (2, 0)36 (1, 1)(0, 2)34 1100 32 1000 50 50 20 30 40 60 70 20 30 40 60 70 Time Time -0.009(3, 0)70000 (2, 1)(1, 2) -0.01065000 (0, 3)60000 alpha = COV/Var-0.011 55000 50000 -0.01245000 -0.01340000



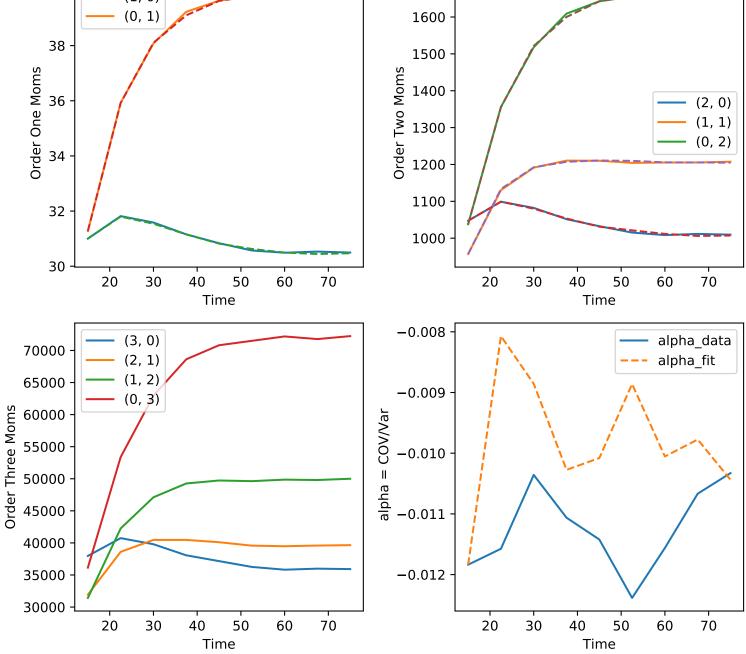
Single_up | NLLA Single_up(#94): [2.8713, 4.0962, 0.1768, 0.1747, 0.001191, 8.29e-05, 0.0000, 0.1298, 0.0749, 0.0000] (1, 0)(0, 1)04 Tago 1400 1300 1200 Order One Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data -0.010(2, 1)alpha fit (1, 2)(0, 3)-0.011Order Three Moms alpha = COV/Var-0.012-0.013-0.014

-0.015

Time

Time

Single_up | NLLA Single_up(#95): [3.3905, 3.7891, 0.2290, 0.1892, 0.001242, 1.217e-15, 0.0000, 0.1667, 0.0882, 0.0080] (1, 0)(0, 1) Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time -0.008 (3, 0)alpha data (2, 1)alpha fit (1, 2)-0.009(0, 3)



Single_up | NLLA Single_up(#96): [3.2703, 3.9658, 0.2117, 0.1760, 0.001228, 1.664e-20, 0.0000, 0.1528, 0.0772, 0.0000] 1700 (1, 0)40 (0, 1)1600 38 1500 Order One Moms **Order Two Moms** 1400 (2, 0)36 (1, 1)1300 (0, 2)34 1200 1100 32 1000 30 20 30 40 50 60 70 20 30 40 50 60 70 Time Time (3, 0)-0.0105 70000 (2, 1)(1, 2)-0.0110(0, 3)Order Three Moms -0.0115COV/Var 60000 -0.012050000 alpha -0.0125-0.013040000 -0.0135alpha data

-0.0140

30000

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Time

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alpha fit

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Time

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Single_up | NLLA Single_up(#97): [3.1163, 3.8157, 0.1968, 0.1705, 0.001235, 4.239e-15, 0.0000, 0.1432, 0.0744, 0.0012] 1700 40 (1, 0)(0, 1) 1600 38 1500 Order One Moms **Order Two Moms** 1400 36 (2, 0)(1, 1)1300 (0, 2)34 1200 1100 32 1000 30 20 30 40 50 60 70 20 30 40 50 60 70 Time Time (3, 0)-0.010570000 (2, 1)(1, 2)-0.0110(0, 3)Order Three Moms 60000 COV/Var -0.0115-0.012050000 alpha -0.0125-0.013040000 -0.0135alpha data

-0.0140

30000

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Time

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alpha fit

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Time

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Single_up | NLLA Single_up(#98): [3.0295, 4.2602, 0.1919, 0.1785, 0.001188, 0.0001757, 0.0000, 0.1391, 0.0776, 0.0000] (1, 0)(0, 1)Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time -0.010(3, 0)(2, 1) -0.011(1, 2)(0, 3)-0.012Order Three Moms alpha = COV/Var-0.013-0.014-0.015

-0.016

Time

alpha data

Time

alpha fit

Single_up | NLLA Single_up(#99): [3.6523, 3.7872, 0.2518, 0.1882, 0.001251, 2.472e-14, 0.0000, 0.1815, 0.0879, 0.0068] (1, 0)(0, 1)order Two Moms 1300 1200 Order One Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data -0.008(2, 1)alpha fit (1, 2)(0, 3)-0.009alpha = COV/Var-0.010-0.011

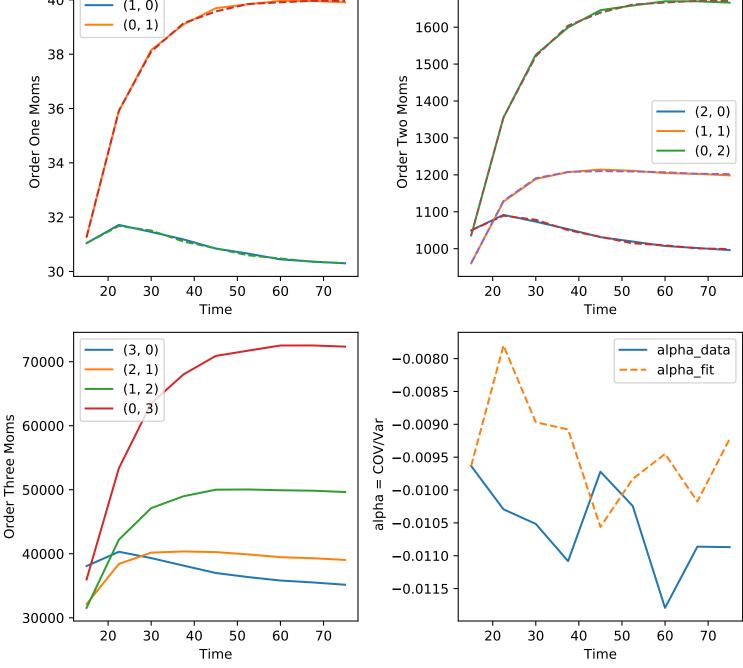
-0.012

Time

Order Three Moms

Time

Single_up | NLLA Single_up(#100): [2.4643, 3.8837, 0.1617, 0.1898, 0.0009767, 4.697e-15, 0.0000, 0.1189, 0.0886, 0.0052] 1700 40 (1, 0)(0, 1)1600 38 1500 Order One Moms **Order Two Moms** 1400 36 (2, 0)(1, 1)1300 (0, 2)34 1200 1100 32 1000 30 50 70 50 20 30 40 60 20 30 40 60 70 Time Time (3, 0)alpha_data -0.008070000 (2, 1)alpha fit (1, 2)-0.0085(0, 3)60000 -0.0090-0.009550000 -0.0100-0.0105



Single_up | NLLA Single_up(#101): [3.0867, 4.0194, 0.2101, 0.1888, 0.001103, 1.8e-17, 0.0000, 0.1524, 0.0853, 0.0035] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data -0.0085(2, 1)alpha fit (1, 2)-0.0090(0, 3)**Order Three Moms** = COV/Var -0.0095-0.0100alpha -0.0105-0.0110-0.0115

Time

Time

Single_up | NLLA Single_up(#102): [3.7885, 4.0103, 0.2564, 0.1816, 0.001219, 8.331e-18, 0.0000, 0.1800, 0.0806, 0.0011] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data -0.0095(2, 1) alpha fit (1, 2)(0, 3)-0.0100Order Three Moms alpha = COV/Var-0.0105-0.0110-0.0115

Time

Time

Single_up | NLLA Single_up(#103): [3.5929, 4.0032, 0.2401, 0.1809, 0.001277, 7.629e-17, 0.0000, 0.1725, 0.0799, 0.0010] (1, 0)(0, 1) Order Jwo Moms 1300 1300 1200 Order One Moms (2, 0)(1, 1)(0, 2)Time Time -0.009(3, 0)alpha data (2, 1) alpha fit (1, 2)-0.010(0, 3)Order Three Moms alpha = COV/Var-0.011-0.012-0.013

Time

Time

Single_up | NLLA Single_up(#104): [3.3544, 4.0948, 0.2301, 0.1778, 0.001095, 0.0001021, 0.0000, 0.1636, 0.0787, 0.0000] (1, 0) (0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0100(3, 0)(2, 1)-0.0105(1, 2)(0, 3)-0.0110**Order Three Moms** COV/Var -0.0115alpha -0.0120-0.0125-0.0130alpha data alpha fit

-0.0135

Time

Time

Single_up | NLLA Single_up(#105): [3.0406, 4.0768, 0.1982, 0.1734, 0.001127, 0.000114, 0.0000, 0.1430, 0.0752, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha_data -0.010(2, 1) alpha_fit (1, 2)(0, 3)-0.011alpha = COV/Var-0.012-0.013 -0.014

Time

Time

Order Three Moms

Single_up | NLLA Single_up(#106): [2.8772, 4.1921, 0.1907, 0.1886, 0.001089, 1.834e-14, 0.0000, 0.1392, 0.0838, 0.0000] (1, 0)(0, 1) Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0100 (3, 0)(2, 1)(1, 2)-0.0105(0, 3)**Order Three Moms** COV/Var -0.0110alpha = -0.0115-0.0120alpha data -0.0125alpha fit

Time

Time

Single_up | NLLA Single_up(#107): [3.3503, 4.0254, 0.2219, 0.1689, 0.001155, 0.0001635, 0.0000, 0.1580, 0.0735, 0.0000] (1, 0)(0, 1) **Order Two Moms** Order One Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha_data -0.010(2, 1)alpha fit (1, 2)(0, 3)-0.011Order Three Moms alpha = COV/Var-0.012-0.013-0.014-0.015

Time

Time

Single_up | NLLA Single_up(#108): [2.7042, 4.0343, 0.1642, 0.1839, 0.001228, 8.229e-14, 0.0000, 0.1234, 0.0813, 0.0023] 1700 40 (1, 0) (0, 1)1600 38 1500 Order One Moms **Order Two Moms** 1400 36 (2, 0)(1, 1)1300 (0, 2)34 1200 1100 32 1000 30 20 30 40 50 60 70 20 30 40 50 60 70 Time Time (3, 0)-0.010070000 (2, 1)-0.0105(1, 2)(0, 3)-0.011060000 COV/Var -0.0115alpha = 50000 -0.0120-0.0125 40000 -0.0130alpha data -0.0135alpha fit

Order Three Moms

30000

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Time

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Time

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Single_up | NLLA Single_up(#109): [2.8848, 4.1377, 0.1934, 0.1822, 0.001015, 5.921e-05, 0.0000, 0.1386, 0.0805, 0.0000] 1700 40 (1, 0) (0, 1)1600 38 1500 Order One Moms **Order Two Moms** 1400 36 (2, 0)(1, 1)1300 (0, 2)34 1200 1100 32 1000 30 20 30 40 50 60 70 20 30 40 50 60 70 Time Time (3, 0)-0.010070000 (2, 1)(1, 2)-0.0105(0, 3)Order Three Moms 60000 COV/Var -0.0110-0.011550000 alpha -0.0120-0.012540000 -0.0130alpha data alpha fit -0.013530000

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Time

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Time

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Single_up | NLLA Single_up(#110): [3.0974, 4.0661, 0.1986, 0.1815, 0.001209, 3.5e-15, 0.0000, 0.1446, 0.0797, 0.0000] (1, 0)(0, 1) Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data -0.0100(2, 1)alpha fit (1, 2)-0.0105(0, 3)**Order Three Moms** -0.0110COV/Var -0.0115alpha -0.0120-0.0125-0.0130-0.0135

Time

Single_up | NLLA Single_up(#111): [4.2980, 4.0436, 0.2901, 0.1779, 0.001423, 3.327e-05, 0.0000, 0.2058, 0.0779, 0.0000] (1, 0)(0, 1) Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)-0.010(2, 1)(1, 2)-0.011(0, 3)alpha = COV/Var-0.012 -0.013 -0.014alpha data alpha fit -0.015

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#112): [3.2796, 4.2377, 0.2111, 0.1781, 0.001213, 0.0001582, 0.0000, 0.1517, 0.0771, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)(2, 1)-0.011(1, 2)(0, 3)-0.012Order Three Moms alpha = COV/Var-0.013-0.014-0.015-0.016alpha data alpha fit

-0.017

Time

Time

Single_up | NLLA Single_up(#113): [3.6425, 3.9033, 0.2416, 0.1826, 0.001334, 2.697e-16, 0.0000, 0.1749, 0.0831, 0.0024] (1, 0)(0, 1)Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0) -0.010(2, 1)(1, 2)(0, 3)-0.011alpha = COV/Var-0.012-0.013alpha data -0.014alpha fit

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#114): [1.4854, 3.5635, 0.0898, 0.1791, 0.0008133, 1.887e-14, 0.0000, 0.0723, 0.0835, 0.0085] (1, 0)(0, 1)Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time -0.006(3, 0) alpha_data (2, 1)alpha_fit -0.007(1, 2)(0, 3)-0.008**Order Three Moms** alpha = COV/Var-0.009-0.010-0.011-0.012

-0.013

Time

Time

Single_up | NLLA Single_up(#115): [4.6062, 4.0746, 0.3136, 0.1675, 0.001394, 0.0002185, 0.0000, 0.2179, 0.0725, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)(2, 1)-0.011(1, 2)(0, 3)-0.012Order Three Moms alpha = COV/Var-0.013 -0.014-0.015alpha data alpha fit

-0.016

Time

Time

Single_up | NLLA Single_up(#116): [3.5771, 3.8860, 0.2442, 0.1930, 0.001269, 3.047e-14, 0.0000, 0.1770, 0.0893, 0.0081] (1, 0)(0, 1)**Order Two Moms** Order One Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0)-0.008(2, 1)(1, 2)(0, 3)-0.009 **Order Three Moms** alpha = COV/Var-0.010 -0.011-0.012alpha_data alpha fit

Time

Single_up | NLLA Single_up(#117): [4.3703, 4.0167, 0.2925, 0.1765, 0.001434, 6.39e-06, 0.0000, 0.2058, 0.0762, 0.0000] 1700 40 (1, 0)(0, 1)1600 38 1500 Order One Moms **Order Two Moms** 1400 36 (2, 0)(1, 1)1300 (0, 2)34 1200 1100 32 1000 30 60 50 70 40 50 60 20 40 20 30 70 30 Time Time -0.0100(3, 0) 70000 (2, 1)-0.0105(1, 2)-0.0110(0, 3)Order Three Moms = COV/Var 60000 -0.0115-0.012050000 -0.0125-0.013040000 -0.0135alpha data alpha fit -0.014030000 40 50 60 70 50 70 20 30 20 30 40 60

Time

Single_up | NLLA Single_up(#118): [3.3158, 3.8936, 0.2152, 0.1709, 0.001239, 3.973e-05, 0.0000, 0.1553, 0.0749, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data -0.010 (2, 1)alpha fit (1, 2) (0, 3)-0.011Order Three Moms alpha = COV/Var-0.012-0.013-0.014

Time

Single_up | NLLA Single_up(#119): [3.5775, 3.8488, 0.2463, 0.1670, 0.001129, 8.109e-05, 0.0000, 0.1736, 0.0735, 0.0000] 1700 40 (1, 0)(0, 1)1600 38 1500 Order One Moms **Order Two Moms** 1400 (2, 0)36 (1, 1)1300 (0, 2)34 1200 1100 32 1000 30 20 30 40 50 60 70 20 30 40 50 60 70 Time Time (3, 0)-0.010070000 (2, 1)(1, 2) -0.0105(0, 3)60000 COV/Var -0.0110alpha_data -0.0115alpha_fit 50000 alpha -0.0120-0.012540000 -0.0130-0.013530000

Order Three Moms

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Time

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Time

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Single_up | NLLA Single_up(#120): [2.8215, 3.6031, 0.1885, 0.1829, 0.001092, 1.435e-14, 0.0000, 0.1388, 0.0859, 0.0091] (1, 0)(0, 1)Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data (2, 1)alpha fit (1, 2)-0.008(0, 3)**Order Three Moms** alpha = COV/Var-0.009 -0.010-0.011

Time

Time

Single_up | NLLA Single_up(#121): [4.5248, 3.9509, 0.2966, 0.1785, 0.001656, 3.905e-10, 0.0000, 0.2138, 0.0770, 0.0036] (1, 0)(0, 1)Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0)(2, 1) -0.010(1, 2)(0, 3)Order Three Moms -0.011alpha = COV/Var-0.012-0.013 -0.014alpha data alpha fit

Time

Single_up | NLLA Single_up(#122): [2.7664, 3.6684, 0.1764, 0.1752, 0.001138, 1.821e-14, 0.0000, 0.1302, 0.0794, 0.0053] (1, 0)(0, 1)Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time -0.0090(3, 0)alpha data (2, 1)alpha fit -0.0095(1, 2)-0.0100(0, 3)**Order Three Moms** COV/Var -0.0105-0.0110alpha -0.0115-0.0120-0.0125

-0.0130

Time

Time

Single_up | NLLA Single_up(#123): [3.1199, 4.0857, 0.1994, 0.1759, 0.001203, 8.108e-05, 0.0000, 0.1448, 0.0762, 0.0000] (1, 0)(0, 1) Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time -0.010(3, 0)(2, 1)(1, 2)-0.011(0, 3)Order Three Moms alpha = COV/Var-0.012-0.013 alpha data -0.014alpha fit

Time

Time

Single_up | NLLA Single_up(#124): [2.7936, 4.0155, 0.1723, 0.1793, 0.001207, 9.045e-15, 0.0000, 0.1280, 0.0784, 0.0009] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)(2, 1)-0.011(1, 2) (0, 3)alpha = COV/Var-0.012 -0.013 -0.014alpha data alpha fit

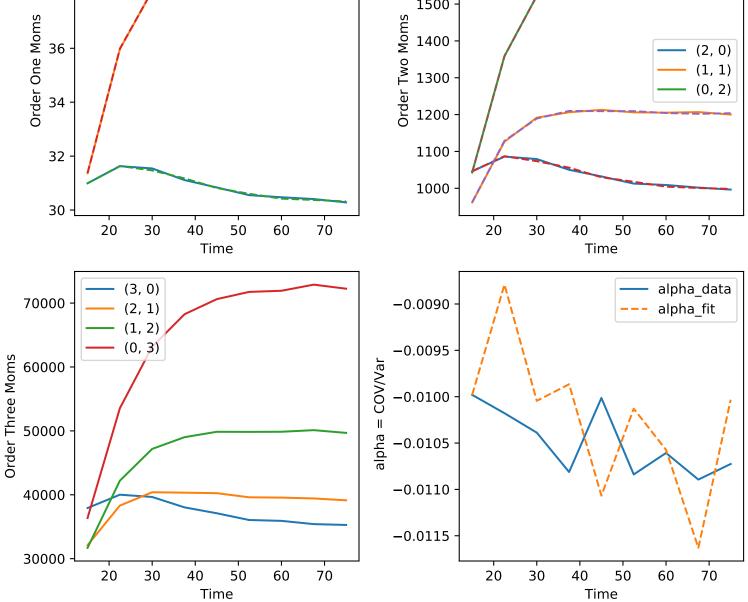
-0.015

Time

Order Three Moms

Time

Single_up | NLLA Single_up(#125): [2.3206, 3.9870, 0.1510, 0.1829, 0.0009458, 2.365e-15, 0.0000, 0.1117, 0.0816, 0.0022] (1, 0) (0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)



Single_up | NLLA Single_up(#126): [2.7506, 4.0532, 0.1829, 0.1778, 0.0009969, 7.679e-05, 0.0000, 0.1317, 0.0790, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0100(3, 0)(2, 1)-0.0105(1, 2) (0, 3)-0.0110Order Three Moms -0.0115-0.0120alpha -0.0125-0.0130alpha data

-0.0135

Time

alpha fit

Time

Single_up | NLLA Single_up(#127): [3.4000, 3.8869, 0.2176, 0.1806, 0.001341, 3.767e-15, 0.0000, 0.1592, 0.0795, 0.0051] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0095(3, 0) (2, 1)(1, 2)-0.0100(0, 3)**Order Three Moms** COV/Var -0.0105 -0.0110alpha -0.0115-0.0120alpha data alpha fit -0.0125

Time

Single_up | NLLA Single_up(#128): [3.6170, 3.9525, 0.2443, 0.1726, 0.001234, 1.057e-05, 0.0000, 0.1744, 0.0742, 0.0000] (1, 0) (0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0100(3, 0) (2, 1)-0.0105(1, 2)(0, 3)-0.0110-0.0115alpha = -0.0120-0.0125-0.0130alpha data alpha fit -0.0135

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#129): [3.7857, 3.9646, 0.2543, 0.1739, 0.001272, 7.192e-17, 0.0000, 0.1804, 0.0748, 0.0002] 1700 40 (1, 0) (0, 1)1600 38 1500 Order One Moms **Order Two Moms** 1400 36 (2, 0)(1, 1)1300 (0, 2)34 1200 1100 32 1000 30 20 30 40 50 60 70 20 30 40 50 60 70 Time Time -0.0090(3, 0)alpha_data 70000 (2, 1)alpha_fit -0.0095(1, 2)-0.0100(0, 3)60000 = COV/Var-0.0105-0.011050000 -0.0115-0.012040000 -0.0125

-0.0130

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Time

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Order Three Moms

30000

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Time

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Single_up | NLLA Single_up(#130): [3.0430, 4.0231, 0.2057, 0.1726, 0.0009967, 0.0001625, 0.0000, 0.1451, 0.0770, 0.0000] 1700 40 (1, 0)(0, 1)1600 38 1500 Order One Moms **Order Two Moms** 1400 36 (2, 0)(1, 1)1300 (0, 2)34 1200 1100 32 1000 30 20 30 40 50 60 70 20 30 40 50 60 70 Time Time -0.0100(3, 0) alpha_data 70000 (2, 1)-0.0105alpha_fit (1, 2) -0.0110(0, 3)Order Three Moms = COV/Var60000 -0.0115-0.012050000 -0.0125-0.013040000 -0.0135

-0.0140

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Time

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30000

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Time

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Single_up | NLLA Single_up(#131): [4.0024, 3.8097, 0.2709, 0.1823, 0.001383, 8.547e-14, 0.0000, 0.1942, 0.0831, 0.0051] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time alpha_data (3, 0)(2, 1)alpha fit -0.0100(1, 2)(0, 3)Order Three Moms -0.0105= COV/Var-0.0110alpha : -0.0115-0.0120

Time

Time

Single_up | NLLA Single_up(#132): [2.6816, 4.2222, 0.1688, 0.1888, 0.001142, 3.702e-16, 0.0000, 0.1256, 0.0819, 0.0016] Order One Moms **Order Two Moms** (2, 0)(1, 0)(1, 1)(0, 1)(0, 2)Time Time (3, 0) (2, 1)-0.010(1, 2)(0, 3)**Order Three Moms** alpha = COV/Var-0.011-0.012-0.013alpha data alpha fit

-0.014

Time

Time

Single_up | NLLA Single_up(#133): [4.2602, 4.0152, 0.2740, 0.1800, 0.001551, 2.984e-14, 0.0000, 0.1959, 0.0780, 0.0024] (1, 0)(0, 1) Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0)(2, 1)(1, 2)-0.011(0, 3)alpha = COV/Var-0.012 -0.013-0.014alpha data alpha fit

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#134): [2.6366, 4.0793, 0.1729, 0.1859, 0.001005, 1.349e-16, 0.0000, 0.1257, 0.0833, 0.0010] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)-0.0095(2, 1)(1, 2)-0.0100(0, 3)COV/Var -0.0105 alpha -0.0110-0.0115alpha_data -0.0120alpha fit

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#135): [3.2400, 3.7151, 0.2098, 0.1738, 0.001298, 8.587e-15, 0.0000, 0.1545, 0.0780, 0.0043] 1700 40 (1, 0)(0, 1)1600 38 1500 Order One Moms **Order Two Moms** 1400 36 (2, 0)(1, 1)1300 (0, 2)1200 1100 32 1000 30 20 30 40 50 60 70 20 30 40 50 60 70 Time Time (3, 0)alpha data -0.010070000 alpha_fit (2, 1)(1, 2)-0.0105(0, 3)60000 = COV/Var-0.0110-0.011550000 alpha -0.012040000 -0.0125

-0.0130

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Time

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Order Three Moms

30000

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Time

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Single_up | NLLA Single_up(#136): [2.9412, 3.8890, 0.1868, 0.1689, 0.001174, 1.562e-23, 0.0000, 0.1365, 0.0720, 0.0000] 1700 40 (1, 0)(0, 1)1600 38 1500 Order One Moms **Order Two Moms** 1400 36 (2, 0)(1, 1)1300 (0, 2)34 1200 1100 32 1000 30 20 30 40 50 60 70 20 30 40 50 60 70 Time Time (3, 0)alpha data 70000 -0.0100(2, 1)alpha fit (1, 2)-0.0105(0, 3)60000 = COV/Var-0.0110-0.011550000 alpha -0.0120 -0.012540000 -0.0130-0.013530000 40 50 60 70 20 30 40 50 70 20 30 60

Time

Time

Order Three Moms

Single_up | NLLA Single_up(#137): [3.3185, 4.0594, 0.2276, 0.1849, 0.001078, 1.007e-16, 0.0000, 0.1613, 0.0834, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data -0.0095 (2, 1)alpha_fit (1, 2)(0, 3)-0.0100COV/Var -0.0105-0.0110-0.0115-0.0120

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#138): [3.7402, 3.9894, 0.2524, 0.1755, 0.001255, 1.2e-14, 0.0000, 0.1793, 0.0759, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0100(3, 0)(2, 1)-0.0105(1, 2)(0, 3)-0.0110Order Three Moms COV/Var -0.0115alpha = -0.0120-0.0125 -0.0130alpha data -0.0135 alpha fit

Time

Single_up | NLLA Single_up(#139): [3.1748, 3.6363, 0.2107, 0.1766, 0.001217, 1.364e-14, 0.0000, 0.1542, 0.0799, 0.0075] (1, 0)(0, 1) Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time alpha data (3, 0)(2, 1)alpha_fit -0.0085(1, 2) (0, 3)-0.0090Order Three Moms COV/Var -0.0095alpha -0.0100-0.0105-0.0110

Time

Time

Single_up | NLLA Single_up(#140): [2.1918, 3.8304, 0.1340, 0.1821, 0.001054, 2.269e-17, 0.0000, 0.1030, 0.0826, 0.0046] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time alpha_data (3, 0)-0.0095(2, 1)alpha_fit (1, 2)-0.0100(0, 3)**Order Three Moms** COV/Var -0.0105alpha = -0.0110-0.0115-0.0120

-0.0125

Time

Time

Single_up | NLLA Single_up(#141): [2.9863, 3.8612, 0.1972, 0.1859, 0.001146, 2.092e-14, 0.0000, 0.1442, 0.0847, 0.0060] (1, 0)(0, 1) Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0085 (3, 0)alpha data (2, 1)alpha fit -0.0090(1, 2)(0, 3)-0.0095**Order Three Moms** COV/Var -0.0100-0.0105alpha : -0.0110-0.0115-0.0120

Time

Time

Single_up | NLLA Single_up(#142): [2.4423, 4.1148, 0.1578, 0.1771, 0.0009118, 0.0001479, 0.0000, 0.1138, 0.0788, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)-0.0100(2, 1)(1, 2)-0.0105(0, 3)Order Three Moms -0.0110-0.0115alpha_data alpha_fit alpha -0.0120-0.0125-0.0130

-0.0135

Time

Time

Single_up | NLLA Single_up(#143): [3.5046, 3.8664, 0.2374, 0.1742, 0.001175, 4.886e-15, 0.0000, 0.1686, 0.0768, 0.0011] 1700 40 (1, 0)(0, 1)1600 38 1500 Order One Moms **Order Two Moms** 1400 (2, 0)36 (1, 1)1300 (0, 2)34 1200 1100 32 1000 30 20 30 40 50 60 70 20 30 40 50 60 70 Time Time -0.0095(3, 0)alpha_data 70000 (2, 1)alpha_fit -0.0100(1, 2)(0, 3)-0.010560000 COV/Var -0.0110alpha = 50000 -0.0115-0.012040000 -0.0125-0.013030000

Order Three Moms

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Time

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Time

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Single_up | NLLA Single_up(#144): [4.1442, 3.6880, 0.2769, 0.1796, 0.001435, 4.053e-19, 0.0000, 0.1975, 0.0817, 0.0076] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0090(3, 0)alpha_data (2, 1)alpha_fit (1, 2)-0.0095(0, 3)COV/Var -0.0100 alpha = -0.0105 -0.0110-0.0115

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#145): [3.1019, 4.1080, 0.2012, 0.1828, 0.001184, 6.82e-07, 0.0000, 0.1458, 0.0802, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0) (2, 1)-0.0105(1, 2)(0, 3)-0.0110Order Three Moms COV/Var -0.0115-0.0120alpha -0.0125-0.0130alpha data alpha fit

Time

Time

Single_up | NLLA Single_up(#146): [2.5305, 3.9337, 0.1644, 0.1725, 0.0009767, 4.878e-05, 0.0000, 0.1197, 0.0756, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0095(3, 0) alpha data (2, 1)alpha fit -0.0100(1, 2)(0, 3)-0.0105**Order Three Moms** COV/Var -0.0110-0.0115-0.0120-0.0125

-0.0130

Time

Time

Single_up | NLLA Single_up(#147): [2.9713, 3.5527, 0.1880, 0.1751, 0.001263, 5.756e-16, 0.0000, 0.1401, 0.0808, 0.0076] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0090 (3, 0)alpha data (2, 1)alpha fit (1, 2)-0.0095(0, 3)= COV/Var -0.0100 -0.0105-0.0110-0.0115-0.0120

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#148): [3.1441, 3.9755, 0.2043, 0.1912, 0.001233, 2.828e-16, 0.0000, 0.1501, 0.0867, 0.0063] (1, 0)(0, 1) Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)-0.0085alpha data (2, 1)alpha fit (1, 2)-0.0090(0, 3)**Order Three Moms** = COV/Var -0.0095 -0.0100edd -0.0105 -0.0110-0.0115

Time

Time

Single_up | NLLA Single_up(#149): [2.6074, 3.9800, 0.1680, 0.1834, 0.001028, 9.143e-15, 0.0000, 0.1228, 0.0817, 0.0030] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)-0.0095(2, 1) (1, 2)(0, 3)-0.0100Order Three Moms alpha = COV/Var-0.0105-0.0110 alpha_data -0.0115alpha fit

Time

Time

Single_up | NLLA Single_up(#150): [2.6187, 4.1852, 0.1637, 0.1703, 0.001062, 0.00024, 0.0000, 0.1196, 0.0729, 0.0000] 1700 40 (1, 0)(0, 1)1600 38 1500 Order One Moms Order Two Moms 1400 36 (2, 0)(1, 1)1300 (0, 2)1200 1100 32 1000 30 20 30 40 50 60 70 20 30 40 50 60 70 Time Time -0.009(3, 0) 70000 -0.010(2, 1)(1, 2) -0.011(0, 3)60000 COV/Var -0.012 -0.013alpha = 50000 -0.014-0.01540000 -0.016alpha data -0.017alpha fit 30000 20 30 40 50 60 70 40 50 60 70 20 30

Time

Time

Order Three Moms

Single_up | NLLA Single_up(#151): [2.9772, 4.0115, 0.1912, 0.1799, 0.001186, 1.665e-12, 0.0000, 0.1401, 0.0798, 0.0000] 1700 40 (1, 0)(0, 1)1600 38 1500 Order One Moms **Order Two Moms** 1400 36 (2, 0)(1, 1)1300 (0, 2)34 1200 1100 32 1000 30 20 30 40 50 60 70 20 30 40 50 60 70 Time Time -0.0105(3, 0)70000 (2, 1)-0.0110(1, 2)-0.0115(0, 3)Order Three Moms = COV/Var 60000 -0.0120-0.012550000 alpha -0.0130-0.013540000 -0.0140alpha data alpha fit -0.014530000

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Time

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Time

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Single_up | NLLA Single_up(#152): [2.7917, 4.1324, 0.1743, 0.1760, 0.001141, 0.0001117, 0.0000, 0.1276, 0.0762, 0.0000] (1, 0)(0, 1)Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0)(2, 1) -0.011(1, 2)(0, 3)alpha = COV/Var-0.012 -0.013-0.014

-0.015

alpha_data alpha fit

Time

Order Three Moms

Time

Single_up | NLLA Single_up(#153): [2.8896, 4.1155, 0.1950, 0.1749, 0.0009529, 0.0001439, 0.0000, 0.1380, 0.0765, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)(2, 1)-0.010(1, 2) (0, 3)Order Three Moms alpha = COV/Var-0.011 -0.012-0.013alpha data alpha fit

Time

Time

Single_up | NLLA Single_up(#154): [3.6711, 4.0264, 0.2510, 0.1879, 0.00128, 8.223e-14, 0.0000, 0.1812, 0.0842, 0.0039] (1, 0)(0, 1) Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)-0.0090 alpha data (2, 1)alpha fit (1, 2)-0.0095(0, 3)**Order Three Moms** COV/Var -0.0100alpha = -0.0105 -0.0110-0.0115

Time

Time

Single_up | NLLA Single_up(#155): [3.5951, 3.7874, 0.2392, 0.1791, 0.001322, 5.587e-14, 0.0000, 0.1731, 0.0803, 0.0056] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)-0.009 alpha data (2, 1)alpha fit (1, 2)(0, 3)-0.010alpha = COV/Var-0.011-0.012-0.013

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#156): [3.2830, 4.1181, 0.2224, 0.1813, 0.001094, 3.046e-05, 0.0000, 0.1583, 0.0794, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha_data (2, 1) alpha_fit -0.0100(1, 2)(0, 3)-0.0105Order Three Moms COV/Var -0.0110alpha -0.0115-0.0120-0.0125

Time

Time

Single_up | NLLA Single_up(#157): [3.4747, 3.9114, 0.2187, 0.1704, 0.001383, 5.157e-17, 0.0000, 0.1592, 0.0729, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)(2, 1)-0.011(1, 2) (0, 3)-0.012alpha = COV/Var-0.013-0.014-0.015alpha data -0.016alpha fit

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#158): [3.2093, 3.7796, 0.2168, 0.1798, 0.00114, 3.248e-17, 0.0000, 0.1563, 0.0818, 0.0045] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0) alpha data -0.0090(2, 1)alpha fit (1, 2)-0.0095(0, 3)COV/Var -0.0100alpha = -0.0105-0.0110-0.0115

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#159): [4.2059, 3.7914, 0.2751, 0.1732, 0.001572, 1.083e-13, 0.0000, 0.1991, 0.0755, 0.0042] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.010(3, 0)(2, 1) (1, 2)-0.011(0, 3)alpha = COV/Var-0.012 -0.013 -0.014alpha data alpha fit -0.015

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#160): [4.7359, 4.2130, 0.3347, 0.1933, 0.001375, 1.659e-17, 0.0000, 0.2342, 0.0865, 0.0017] 1700 40 (1, 0)(0, 1) 1600 38 1500 Order One Moms Order Two Moms 1400 36 (2, 0)(1, 1)1300 (0, 2)34 1200 1100 32 1000 20 30 40 50 60 70 20 30 40 50 60 70 Time Time -0.0090(3, 0)alpha_data 70000 (2, 1)alpha fit (1, 2)-0.0095(0, 3)60000 -0.0100 = COV/Var-0.010550000 alpha -0.0110-0.011540000 -0.012030000

Order Three Moms

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Time

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Time

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Single_up | NLLA Single_up(#161): [3.4533, 4.0470, 0.2187, 0.1655, 0.001267, 0.0001556, 0.0000, 0.1555, 0.0694, 0.0000] (1, 0)(0, 1)**Order Two Moms** Order One Moms (2, 0)(1, 1)(0, 2)Time Time -0.008(3, 0)alpha_data (2, 1)alpha_fit (1, 2) -0.010(0, 3)Order Three Moms alpha = COV/Var-0.012-0.014-0.016

Time

Time

Single_up | NLLA Single_up(#162): [3.5200, 4.1547, 0.2387, 0.1881, 0.001212, 1.399e-15, 0.0000, 0.1711, 0.0833, 0.0012] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0) alpha data (2, 1)alpha_fit -0.0100(1, 2)(0, 3)**Order Three Moms** COV/Var -0.0105 -0.0110alpha : -0.0115-0.0120

Time

Time

Single_up | NLLA Single_up(#163): [3.0899, 4.0907, 0.1992, 0.1842, 0.001177, 1.485e-06, 0.0000, 0.1439, 0.0819, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data -0.0100(2, 1)alpha fit (1, 2)-0.0105(0, 3)Order Three Moms = COV/Var-0.0110-0.0115-0.0120-0.0125-0.0130-0.0135

Time

Time

Single_up | NLLA Single_up(#164): [3.7257, 3.8149, 0.2616, 0.1777, 0.001152, 3.965e-16, 0.0000, 0.1849, 0.0808, 0.0020] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0090(3, 0)alpha data (2, 1) alpha fit (1, 2)-0.0095(0, 3)= COV/Var-0.0100-0.0105alpha : -0.0110-0.0115

-0.0120

Time

Order Three Moms

Time

Single_up | NLLA Single_up(#165): [3.2901, 4.0917, 0.2112, 0.1767, 0.001239, 5.531e-05, 0.0000, 0.1521, 0.0759, 0.0000] (1, 0)(0, 1) Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time -0.010(3, 0) (2, 1)(1, 2) -0.011(0, 3)**Order Three Moms** alpha = COV/Var-0.012 -0.013 -0.014alpha data alpha fit

Time

Time

Single_up | NLLA Single_up(#166): [3.4160, 3.9491, 0.2250, 0.1824, 0.001226, 1.472e-15, 0.0000, 0.1612, 0.0817, 0.0025] (1, 0)(0, 1)Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time -0.0090(3, 0)alpha data (2, 1)alpha fit -0.0095(1, 2)(0, 3)-0.0100Order Three Moms COV/Var -0.0105alpha = -0.0110-0.0115-0.0120-0.0125

Time

Time

Single_up | NLLA Single_up(#167): [4.8936, 4.0388, 0.3428, 0.1810, 0.001432, 7.666e-17, 0.0000, 0.2392, 0.0799, 0.0000] 1700 40 (1, 0)(0, 1)1600 38 1500 Order One Moms **Order Two Moms** 1400 (2, 0)36 (1, 1)1300 (0, 2)34 1200 1100 32 1000 50 70 50 20 30 40 60 20 30 40 60 70 Time Time -0.0095(3, 0)70000 (2, 1) -0.0100(1, 2)-0.0105(0, 3)Order Three Moms 60000 COV/Var -0.0110-0.011550000 alpha -0.0120-0.012540000 -0.0130alpha data alpha fit -0.013530000 40 50 60 70 50 60 70 20 30 20 30 40

Time

Time

Single_up | NLLA Single_up(#168): [4.1880, 3.9941, 0.2878, 0.1814, 0.00138, 9.694e-17, 0.0000, 0.2051, 0.0805, 0.0014] 1700 40 (1, 0)(0, 1)1600 38 1500 Order One Moms **Order Two Moms** 1400 36 (2, 0)(1, 1)1300 (0, 2)34 1200 1100 32 1000 30 20 30 50 60 70 20 30 40 50 60 70 40 Time Time (3, 0)-0.010070000 (2, 1)(1, 2)-0.0105(0, 3)60000 COV/Var -0.0110-0.011550000 alpha -0.0120-0.012540000 -0.0130alpha data alpha fit -0.013530000

Order Three Moms

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Time

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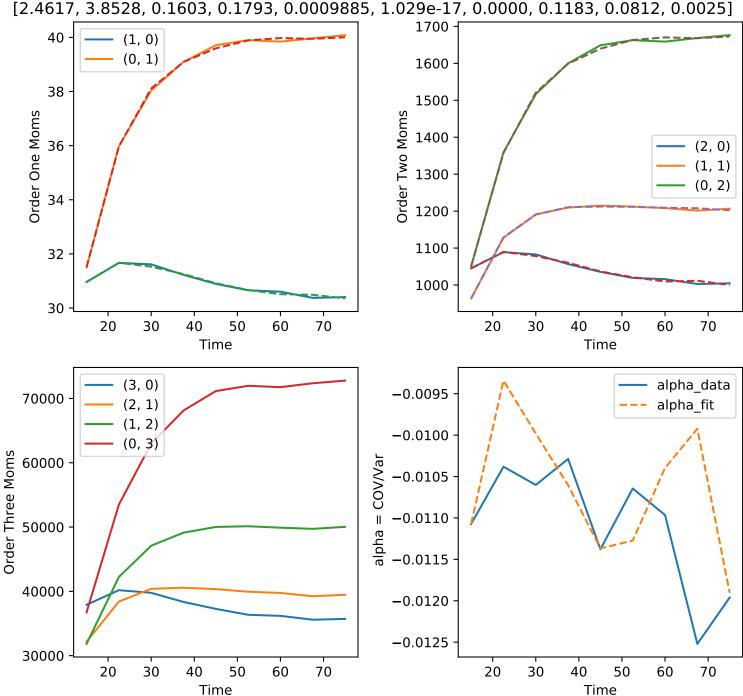
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Time

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Single_up | NLLA Single_up(#169): [2.4617, 3.8528, 0.1603, 0.1793, 0.0009885, 1.029e-17, 0.0000, 0.1183, 0.0812, 0.0025]



Single_up | NLLA Single_up(#170): [2.8135, 4.2229, 0.1793, 0.1834, 0.001154, 4.238e-05, 0.0000, 0.1322, 0.0791, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0) -0.010(2, 1)(1, 2)(0, 3)-0.011**Order Three Moms** alpha = COV/Var -0.012-0.013 alpha data -0.014alpha fit

Time

Time

Single_up | NLLA Single_up(#171): [3.4113, 4.1532, 0.2216, 0.1900, 0.001305, 4.179e-14, 0.0000, 0.1612, 0.0846, 0.0018] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0100(3, 0)(2, 1)-0.0105(1, 2)(0, 3)-0.0110**Order Three Moms** COV/Var -0.0115-0.0120alpha : -0.0125-0.0130alpha data alpha fit -0.0135

Time

Time

Single_up | NLLA Single_up(#172): [3.6512, 4.1658, 0.2377, 0.1834, 0.001304, 2.099e-13, 0.0000, 0.1695, 0.0792, 0.0000] (1, 0)(0, 1)Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time -0.009(3, 0)alpha data (2, 1) alpha fit (1, 2)-0.010(0, 3)alpha = COV/Var-0.011-0.012-0.013 -0.014

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#173): [3.5424, 3.7187, 0.2320, 0.1783, 0.001356, 1.547e-16, 0.0000, 0.1691, 0.0812, 0.0057] 1700 40 (1, 0)(0, 1)1600 38 1500 Order One Moms **Order Two Moms** 1400 36 (2, 0)(1, 1)1300 (0, 2)34 1200 1100 32 1000 30 50 20 30 40 50 60 70 20 30 40 60 70 Time Time -0.0095(3, 0)alpha_data 70000 (2, 1)alpha_fit -0.0100(1, 2)-0.0105 (0, 3)Order Three Moms 60000 = COV/Var-0.0110-0.011550000 -0.0120-0.012540000 -0.0130-0.0135 30000

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Time

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Time

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Single_up | NLLA Single_up(#174): [2.6157, 4.0259, 0.1561, 0.1657, 0.001141, 0.0001551, 0.0000, 0.1153, 0.0699, 0.0000](1, 0)(0, 1)Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0)-0.010(2, 1)(1, 2)-0.011(0, 3)alpha = COV/Var-0.012 -0.013 -0.014-0.015alpha data -0.016

alpha fit

Time

Order Three Moms

Time

Single_up | NLLA Single_up(#175): [3.1074, 3.8733, 0.2014, 0.1670, 0.00116, 6.211e-05, 0.0000, 0.1456, 0.0723, 0.0000] 1700 -(1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data -0.010(2, 1)alpha fit (1, 2) (0, 3)-0.011alpha = COV/Var-0.012-0.013-0.014

Time

Time

Order Three Moms

Single_up | NLLA Single_up(#176): [3.3806, 4.1877, 0.2260, 0.1802, 0.001132, 0.000114, 0.0000, 0.1598, 0.0789, 0.0000] (1, 0)(0, 1)Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0) alpha data (2, 1)alpha_fit (1, 2)-0.010(0, 3)**Order Three Moms** alpha = COV/Var -0.011-0.012-0.013

Time

Time

Single_up | NLLA Single_up(#177): [4.0255, 3.5486, 0.2633, 0.1765, 0.001595, 5.022e-16, 0.0000, 0.1944, 0.0802, 0.0103] 1700 40 (1, 0)(0, 1)1600 38 1500 Order One Moms **Order Two Moms** 1400 (2, 0)36 (1, 1)1300 (0, 2)34 1200 1100 32 1000 30 20 30 40 50 60 70 20 30 40 50 60 70 Time Time (3, 0)alpha data -0.009070000 (2, 1)alpha fit (1, 2)-0.0095(0, 3)60000 COV/Var -0.0100-0.010550000 alpha -0.0110-0.011540000 -0.0120

-0.0125

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Time

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Order Three Moms

30000

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Time

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Single_up | NLLA Single_up(#178): [2.9600, 4.0471, 0.1924, 0.1836, 0.001151, 1.002e-16, 0.0000, 0.1404, 0.0813, 0.0015] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)-0.0100(2, 1) (1, 2)-0.0105(0, 3)= COV/Var-0.0110-0.0115alpha -0.0120-0.0125alpha data -0.0130alpha fit

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#179): [3.7333, 3.9004, 0.2514, 0.1786, 0.001303, 1.139e-20, 0.0000, 0.1804, 0.0791, 0.0028] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0095(3, 0) alpha data (2, 1)alpha fit -0.0100(1, 2)(0, 3)Order Three Moms COV/Var -0.0105-0.0110alpha : -0.0115-0.0120

Time

Time

Single_up | NLLA Single_up(#180): [2.9241, 3.9177, 0.1810, 0.1892, 0.001323, 1.151e-18, 0.0000, 0.1367, 0.0857, 0.0072] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0090alpha data (3, 0)(2, 1)alpha fit -0.0095(1, 2)(0, 3)-0.0100Order Three Moms = COV/Var-0.0105-0.0110alpha -0.0115-0.0120-0.0125

-0.0130

Time

Time

Single_up | NLLA Single_up(#181): [2.9241, 4.0638, 0.1839, 0.1786, 0.001176, 3.504e-05, 0.0000, 0.1342, 0.0782, 0.0000] (1, 0)(0, 1) Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data (2, 1)-0.010alpha fit (1, 2) (0, 3)Order Three Moms -0.011alpha = COV/Var-0.012 -0.013 -0.014

Time

Time

Single_up | NLLA Single_up(#182): [4.5024, 3.7180, 0.3035, 0.1780, 0.00151, 6.349e-15, 0.0000, 0.2158, 0.0799, 0.0069] 1700 40 (1, 0)(0, 1) 1600 38 1500 Order One Moms **Order Two Moms** 1400 (2, 0)36 (1, 1)1300 (0, 2)34 1200 1100 32 1000 20 30 40 50 60 70 20 30 40 50 60 70 Time Time -0.0090(3, 0)70000 (2, 1)-0.0095(1, 2)(0, 3)-0.010060000 COV/Var -0.010550000 -0.0110alpha -0.011540000 -0.0120alpha data alpha fit -0.012530000

Order Three Moms

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Time

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Time

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Single_up | NLLA Single_up(#183): [3.0658, 3.8939, 0.1950, 0.1800, 0.001289, 8.483e-17, 0.0000, 0.1450, 0.0794, 0.0043] (1, 0)(0, 1) Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)(2, 1)-0.0100(1, 2)(0, 3)-0.0105Order Three Moms COV/Var -0.0110alpha -0.0115-0.0120alpha data -0.0125alpha fit

Time

Time

Single_up | NLLA Single_up(#184): [3.6472, 4.0765, 0.2459, 0.1843, 0.001238, 2.358e-16, 0.0000, 0.1750, 0.0822, 0.0000] (1, 0)(0, 1)Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0) alpha data (2, 1)alpha fit -0.010(1, 2)(0, 3)Order Three Moms alpha = COV/Var -0.011-0.012-0.013 -0.014

Time

Time

Single_up | NLLA Single_up(#185): [3.1147, 4.1150, 0.1964, 0.1758, 0.001202, 9.948e-05, 0.0000, 0.1416, 0.0760, 0.0000] (1, 0)(0, 1)Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time -0.010(3, 0)(2, 1)(1, 2) -0.011(0, 3)Order Three Moms alpha = COV/Var-0.012 -0.013-0.014alpha data -0.015alpha fit

Time

Time

Single_up | NLLA Single_up(#186): [2.5610, 3.9465, 0.1630, 0.1868, 0.001094, 9.166e-15, 0.0000, 0.1216, 0.0848, 0.0042] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0090(3, 0)alpha data (2, 1)alpha fit -0.0095(1, 2)(0, 3)-0.0100**Order Three Moms** COV/Var -0.0105-0.0110alpha : -0.0115-0.0120

-0.0125

Time

Time

Single_up | NLLA Single_up(#187): [3.6345, 3.7259, 0.2400, 0.1771, 0.001345, 2.978e-15, 0.0000, 0.1737, 0.0793, 0.0061]1700 40 (1, 0)(0, 1)1600 38 1500 Order One Moms **Order Two Moms** 1400 (2, 0)36 (1, 1)1300 (0, 2)34 1200 1100 32 1000 30 20 30 40 50 60 70 20 30 40 50 60 70 Time Time (3, 0)-0.009570000 (2, 1)(1, 2)-0.0100(0, 3)60000 COV/Var -0.0105-0.011050000 alpha -0.011540000 -0.0120alpha data alpha fit

-0.0125

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Time

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Order Three Moms

30000

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Time

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Single_up | NLLA Single_up(#188): [2.9556, 4.0435, 0.1877, 0.1793, 0.001133, 1.124e-19, 0.0000, 0.1355, 0.0782, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)(2, 1) -0.010(1, 2)(0, 3)alpha = COV/Var-0.011 -0.012-0.013alpha data alpha fit

-0.014

Time

Order Three Moms

Time

Single_up | NLLA Single_up(#189): [1.9926, 4.1102, 0.1151, 0.1762, 0.0009731, 6.996e-05, 0.0000, 0.0878, 0.0757, 0.0000] (1, 0)(0, 1)Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0) -0.010 (2, 1)(1, 2) (0, 3)-0.011Order Three Moms alpha = COV/Var-0.012-0.013 alpha data

-0.014

alpha fit

Time

Time

Single_up | NLLA Single_up(#190): [2.6785, 3.6027, 0.1709, 0.1788, 0.001168, 8.16e-18, 0.0000, 0.1287, 0.0826, 0.0081] (1, 0)(0, 1)Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time -0.008(3, 0)alpha_data (2, 1) alpha_fit (1, 2) -0.009(0, 3)alpha = COV/Var-0.010-0.011-0.012

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#191): [4.2624, 4.0862, 0.2771, 0.1795, 0.00156, 1.026e-13, 0.0000, 0.1991, 0.0775, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.010(3, 0)(2, 1)-0.011(1, 2)(0, 3)-0.012alpha = COV/Var-0.013-0.014-0.015-0.016alpha data alpha fit -0.017

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#192): [2.9606, 3.6728, 0.1873, 0.1761, 0.001283, 4.449e-14, 0.0000, 0.1405, 0.0796, 0.0061] (1, 0) (0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0) -0.0095(2, 1)(1, 2)-0.0100(0, 3)Order Three Moms COV/Var -0.0105-0.0110alpha -0.0115-0.0120alpha data -0.0125alpha fit -0.0130

Time

Time

Single_up | NLLA Single_up(#193): [2.8303, 3.9789, 0.1875, 0.1701, 0.0009713, 0.0001382, 0.0000, 0.1331, 0.0750, 0.0000] 1700 40 (1, 0) (0, 1)1600 38 1500 Order One Moms **Order Two Moms** 1400 36 (2, 0)(1, 1)1300 (0, 2)34 1200 1100 32 1000 30 20 30 40 50 60 70 20 30 40 50 60 70 Time Time (3, 0)-0.010070000 (2, 1)(1, 2)-0.0105(0, 3)Order Three Moms 60000 COV/Var -0.0110 -0.0115 50000 -0.0120alpha -0.012540000 -0.0130alpha data

-0.0135

30000

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Time

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alpha fit

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Time

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Single_up | NLLA Single_up(#194): [3.0667, 3.8769, 0.2008, 0.1836, 0.001206, 2.146e-13, 0.0000, 0.1478, 0.0834, 0.0040] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.009(3, 0)alpha data (2, 1)alpha_fit (1, 2)-0.010(0, 3)Order Three Moms alpha = COV/Var-0.011-0.012 -0.013

Time

Time

Single_up | NLLA Single_up(#195): [3.5300, 3.9609, 0.2413, 0.1804, 0.001195, 1.138e-15, 0.0000, 0.1729, 0.0805, 0.0011] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0) alpha_data -0.0090(2, 1)alpha_fit (1, 2)-0.0095(0, 3)**Order Three Moms** -0.0100COV/Var -0.0105alpha -0.0110-0.0115-0.0120-0.0125

Time

Time

Single_up | NLLA Single_up(#196): [3.4051, 4.0760, 0.2276, 0.1845, 0.001186, 2.166e-18, 0.0000, 0.1629, 0.0821, 0.0007] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha_data (2, 1) -0.0100alpha_fit (1, 2)(0, 3)-0.0105COV/Var -0.0110-0.0115-0.0120-0.0125

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#197): [3.1439, 4.0306, 0.2036, 0.1705, 0.001121, 0.0001492, 0.0000, 0.1444, 0.0743, 0.0000] (1, 0) (0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.010(3, 0)(2, 1) (1, 2)-0.011(0, 3)alpha = COV/Var-0.012 -0.013-0.014alpha data alpha fit

-0.015

Time

Order Three Moms

Time

Single_up | NLLA Single_up(#198): [3.5868, 4.1190, 0.2394, 0.1865, 0.001229, 1.207e-18, 0.0000, 0.1704, 0.0835, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data -0.0105(2, 1)alpha fit (1, 2)-0.0110(0, 3)COV/Var -0.0115alpha = -0.0120-0.0125-0.0130

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#199): [3.7223, 3.9924, 0.2493, 0.1870, 0.001329, 4.525e-15, 0.0000, 0.1797, 0.0835, 0.0048] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0090alpha data (3, 0)alpha_fit (2, 1)-0.0095(1, 2)(0, 3)**Order Three Moms** -0.0100COV/Var -0.0105alpha -0.0110-0.0115-0.0120

Time

Time

Single_up | NLLA Single_up(#200): [5.5663, 4.0663, 0.3923, 0.1865, 0.001631, 6.81e-14, 0.0000, 0.2743, 0.0829, 0.0026] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0100(3, 0) alpha data (2, 1)alpha fit (1, 2)-0.0105(0, 3)COV/Var -0.0110alpha = -0.0115 -0.0120

Time

Time

Order Three Moms

Single_up | NLLA Single_up(#201): [3.4700, 3.8049, 0.2285, 0.1732, 0.001283, 7.88e-16, 0.0000, 0.1652, 0.0763, 0.0025] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0100(3, 0)(2, 1)-0.0105(1, 2)(0, 3)-0.0110COV/Var -0.0115alpha -0.0120-0.0125alpha data -0.0130alpha fit

Time

Time

Order Three Moms

Single_up | NLLA Single_up(#202): [3.5278, 4.2023, 0.2359, 0.1874, 0.001264, 3.987e-15, 0.0000, 0.1702, 0.0823, 0.0000] (1, 0) (0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)-0.0105(2, 1)(1, 2)-0.0110(0, 3)**Order Three Moms** COV/Var -0.0115-0.0120eddle -0.0125 -0.0130alpha data -0.0135alpha fit

Time

Time

Single_up | NLLA Single_up(#203): [3.0703, 3.8124, 0.2017, 0.1768, 0.001197, 6.305e-15, 0.0000, 0.1479, 0.0796, 0.0027] (1, 0)(0, 1) Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0100(3, 0)(2, 1)-0.0105(1, 2)(0, 3)-0.0110-0.0115alpha = -0.0120-0.0125-0.0130alpha data alpha fit -0.0135

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#204): [3.4082, 4.0473, 0.2158, 0.1762, 0.001373, 1.819e-06, 0.0000, 0.1580, 0.0752, 0.0000] (1, 0)(0, 1)**Order Two Moms** Order One Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0)-0.010(2, 1)(1, 2) -0.011(0, 3)Order Three Moms alpha = COV/Var-0.012-0.013-0.014-0.015alpha data alpha fit -0.016

Time

Time

Single_up | NLLA Single_up(#205): [2.5136, 4.1970, 0.1596, 0.1782, 0.0009832, 9.894e-05, 0.0000, 0.1158, 0.0767, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data -0.009(2, 1)alpha fit (1, 2)(0, 3)-0.010Order Three Moms alpha = COV/Var-0.011-0.012-0.013

-0.014

Time

Time

Single_up | NLLA Single_up(#206): [3.3244, 4.0615, 0.2164, 0.1771, 0.001251, 3.926e-05, 0.0000, 0.1567, 0.0768, 0.0000] 1700 40 (1, 0)(0, 1)1600 38 1500 04er Jwo 1400 1300 1200 Order One Moms 36 (2, 0)(1, 1)(0, 2)34 1100 32 1000 30 20 30 40 50 60 . 70 20 30 40 50 60 70 Time Time -0.010(3, 0)alpha data 70000 (2, 1)alpha_fit (1, 2)-0.011(0, 3)60000 alpha = COV/Var-0.012 50000 -0.013 40000 -0.01430000 20 30 40 50 60 70 20 40 50 60 70 30

Time

Time

Order Three Moms

Single_up | NLLA Single_up(#207): [2.3130, 3.9518, 0.1445, 0.1767, 0.001257, 2.886e-09, 0.0036, 0.1132, 0.0771, 0.0012] (1, 0)(0, 1)04 1400 ow 1300 1200 Order One Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0) (2, 1)-0.010(1, 2)(0, 3)alpha = COV/Var-0.011 -0.012-0.013alpha data

-0.014

alpha fit

Time

Order Three Moms

Time

Single_up | NLLA Single_up(#208): [3.5300, 4.0178, 0.2311, 0.1744, 0.001297, 1.018e-05, 0.0000, 0.1665, 0.0744, 0.0000] 1700 40 (1, 0)(0, 1)1600 38 1500 Order One Moms **Order Two Moms** 1400 36 (2, 0)(1, 1)1300 (0, 2)34 1200 1100 32 1000 30 20 30 40 50 60 70 20 30 40 50 60 70 Time Time -0.0100(3, 0)alpha data 70000 (2, 1)alpha_fit -0.0105(1, 2)(0, 3)-0.011060000 COV/Var -0.0115-0.012050000 alpha -0.012540000 -0.0130-0.0135

Order Three Moms

30000

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Time

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Time

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Single_up | NLLA Single_up(#209): [3.4932, 3.7681, 0.2243, 0.1899, 0.001455, 7.518e-15, 0.0000, 0.1667, 0.0870, 0.0108] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data -0.0085(2, 1)alpha fit (1, 2)-0.0090(0, 3)**Order Three Moms** = COV/Var-0.0095-0.0100alpha -0.0105-0.0110-0.0115

Time

Time

Single_up | NLLA Single_up(#210): [2.6191, 3.7343, 0.1653, 0.1934, 0.001156, 2.715e-15, 0.0000, 0.1245, 0.0918, 0.0104] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.007(3, 0)alpha data (2, 1)alpha fit (1, 2)-0.008(0, 3)**Order Three Moms** alpha = COV/Var-0.009 -0.010-0.011

-0.012

Time

Time

Single_up | NLLA Single_up(#211): [2.6865, 4.0216, 0.1736, 0.1814, 0.001078, 2.663e-17, 0.0000, 0.1280, 0.0799, 0.0014] (1, 0) (0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha_data -0.0100(2, 1)alpha_fit (1, 2)(0, 3)-0.0105COV/Var -0.0110alpha = -0.0115-0.0120

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#212): [3.8474, 3.8572, 0.2626, 0.1865, 0.001339, 1.726e-16, 0.0000, 0.1889, 0.0853, 0.0059] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0085(3, 0)alpha_data (2, 1)alpha_fit -0.0090(1, 2)(0, 3)-0.0095**Order Three Moms** -0.0100-0.0105alpha -0.0110-0.0115-0.0120

Time

Time

Single_up | NLLA Single_up(#213): [3.7838, 3.7984, 0.2623, 0.1854, 0.001199, 5.474e-16, 0.0000, 0.1861, 0.0854, 0.0066] (1, 0)(0, 1)Order Two Moms 1300 1300 1200 Order One Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data (2, 1)alpha fit (1, 2)-0.008(0, 3)Order Three Moms alpha = COV/Var-0.009 -0.010-0.011

Time

Time

Single_up | NLLA Single_up(#214): [3.1287, 3.8447, 0.2094, 0.1874, 0.001134, 5.082e-19, 0.0000, 0.1512, 0.0868, 0.0059] 1700 40 (1, 0)(0, 1)1600 38 1500 Order One Moms **Order Two Moms** 1400 36 (2, 0)(1, 1)1300 (0, 2)34 1200 1100 32 1000 30 20 30 40 50 60 70 20 30 40 50 60 70 Time Time -0.0080(3, 0)alpha data 70000 (2, 1)alpha_fit -0.0085(1, 2)(0, 3)-0.0090Order Three Moms 60000 COV/Var -0.009550000 alpha = -0.0100-0.0105 40000 -0.0110-0.0115

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Time

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Time

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Single_up | NLLA Single_up(#215): [3.6514, 3.9125, 0.2429, 0.1834, 0.001312, 2.684e-14, 0.0000, 0.1748, 0.0822, 0.0046] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha_data (2, 1)alpha_fit -0.0095(1, 2)(0, 3)-0.0100Order Three Moms COV/Var -0.0105alpha -0.0110-0.0115-0.0120

Time

Time

Single_up | NLLA Single_up(#216): [2.6650, 3.9960, 0.1672, 0.1818, 0.001148, 1.228e-13, 0.0000, 0.1246, 0.0802, 0.0021] (1, 0)(0, 1) Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0095(3, 0)-0.0100(2, 1)(1, 2)-0.0105(0, 3) **Order Three Moms** COV/Var -0.0110-0.0115-0.0120alpha : -0.0125 -0.0130alpha data -0.0135alpha fit

Time

Time

Single_up | NLLA Single_up(#217): [2.5025, 4.0154, 0.1567, 0.1853, 0.001057, 3.706e-17, 0.0000, 0.1161, 0.0830, 0.0024] (1, 0)(0, 1) Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0095(3, 0)alpha data (2, 1)alpha_fit (1, 2)-0.0100(0, 3)**Order Three Moms** COV/Var -0.0105 alpha = -0.0110-0.0115-0.0120

Time

Time

Single_up | NLLA Single_up(#218): [3.1652, 3.7936, 0.2026, 0.1726, 0.001291, 3.746e-16, 0.0000, 0.1497, 0.0753, 0.0034] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.009(3, 0)(2, 1)(1, 2) -0.010(0, 3)alpha = COV/Var-0.011-0.012 -0.013alpha data alpha fit -0.014

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#219): [2.8416, 3.9542, 0.1828, 0.1635, 0.001027, 0.0001663, 0.0000, 0.1302, 0.0700, 0.0000] 1700 -(1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)(2, 1)-0.010(1, 2) (0, 3)Order Three Moms -0.011alpha = COV/Var-0.012-0.013-0.014alpha data alpha fit

-0.015

Time

Time

Single_up | NLLA Single_up(#220): [3.8136, 3.8121, 0.2530, 0.1730, 0.001385, 3.456e-16, 0.0000, 0.1826, 0.0757, 0.0028] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0100(3, 0) (2, 1)-0.0105(1, 2)(0, 3)-0.0110**Order Three Moms** -0.0115-0.0120-0.0125-0.0130alpha data -0.0135alpha fit

Time

Time

Single_up | NLLA Single_up(#221): [2.6115, 4.0091, 0.1668, 0.1849, 0.001055, 3.451e-14, 0.0000, 0.1226, 0.0831, 0.0021] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0) alpha data -0.0095(2, 1)alpha fit (1, 2)-0.0100(0, 3)Order Three Moms = COV/Var-0.0105-0.0110-0.0115-0.0120-0.0125

Time

Time

Single_up | NLLA Single_up(#222): [3.7757, 3.6998, 0.2534, 0.1789, 0.001318, 4.108e-14, 0.0000, 0.1814, 0.0813, 0.0066] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0085(3, 0)alpha_data (2, 1)alpha_fit (1, 2)-0.0090(0, 3)**Order Three Moms** = COV/Var -0.0095-0.0100alpha -0.0105-0.0110-0.0115

Time

Time

Single_up | NLLA Single_up(#223): [2.8982, 4.1456, 0.1828, 0.1798, 0.001164, 7.9e-05, 0.0000, 0.1335, 0.0785, 0.0000] (1, 0)(0, 1)Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time -0.010(3, 0) (2, 1)(1, 2)-0.011(0, 3)alpha = COV/Var-0.012 -0.013-0.014alpha data alpha fit -0.015

Time

Time

Order Three Moms

Single_up | NLLA Single_up(#224): [3.3834, 3.9482, 0.2288, 0.1815, 0.001211, 1.935e-15, 0.0000, 0.1655, 0.0812, 0.0023] (1, 0)(0, 1) Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha_data (2, 1)alpha_fit -0.0100(1, 2)(0, 3)Order Three Moms -0.0105alpha = COV/Var-0.0110-0.0115-0.0120

Time

Time

Single_up | NLLA Single_up(#225): [3.0190, 4.0194, 0.1945, 0.1776, 0.001153, 5.846e-14, 0.0000, 0.1409, 0.0770, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0100(3, 0) (2, 1)(1, 2) -0.0105(0, 3)**Order Three Moms** = COV/Var-0.0110 -0.0115-0.0120-0.0125alpha data -0.0130alpha fit

Time

Time

Single_up | NLLA Single_up(#226): [2.5653, 4.0200, 0.1653, 0.1814, 0.001031, 1.682e-15, 0.0000, 0.1215, 0.0810, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0095(3, 0)alpha data (2, 1) alpha fit -0.0100(1, 2)(0, 3)-0.0105-0.0110-0.0115alpha -0.0120 -0.0125-0.0130

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#227): [2.2812, 3.8033, 0.1408, 0.1920, 0.001091, 2.298e-15, 0.0000, 0.1086, 0.0893, 0.0094] (1, 0)(0, 1)Order One Moms **Drder Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.007(3, 0)alpha data (2, 1)alpha fit (1, 2)-0.008(0, 3)**Order Three Moms** alpha = COV/Var-0.009 -0.010-0.011-0.012

Time

Time

Single_up | NLLA Single_up(#228): [3.0549, 3.9296, 0.1996, 0.1700, 0.001149, 4.628e-05, 0.0000, 0.1445, 0.0735, 0.0000] 1700 -(1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)-0.010(2, 1)(1, 2)(0, 3)-0.011alpha = COV/Var-0.012-0.013 alpha data -0.014alpha fit

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#229): [3.7276, 4.1559, 0.2422, 0.1762, 0.001316, 8.35e-05, 0.0000, 0.1721, 0.0748, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.009(3, 0)alpha data (2, 1)alpha fit -0.010(1, 2)(0, 3)alpha = COV/Var-0.011-0.012-0.013-0.014

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#230): [3.5922, 3.6636, 0.2404, 0.1837, 0.001321, 6.14e-17, 0.0000, 0.1746, 0.0853, 0.0090] 1700 40 (1, 0)(0, 1)1600 38 1500 Order One Moms **Order Two Moms** 1400 36 (2, 0)(1, 1)1300 (0, 2)34 1200 1100 32 1000 30 60 50 70 40 50 60 20 40 20 30 70 30 Time Time -0.0080(3, 0) alpha data 70000 (2, 1)alpha fit -0.0085(1, 2)(0, 3)-0.0090 COV/Var 60000 -0.0095alpha = -0.010050000 -0.010540000 -0.0110-0.011530000 40 50 60 70 20 30 40 50 60 70 20 30

Time

Time

Order Three Moms

Single_up | NLLA Single_up(#231): [3.4911, 3.9718, 0.2225, 0.1780, 0.001402, 6.893e-15, 0.0000, 0.1634, 0.0774, 0.0017] (1, 0)(0, 1)Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0) alpha data (2, 1)alpha_fit -0.010(1, 2)(0, 3)-0.011**Order Three Moms** alpha = COV/Var-0.012-0.013-0.014-0.015

Time

Time

Single_up | NLLA Single_up(#232): [3.4174, 4.1258, 0.2341, 0.1848, 0.001119, 1.801e-05, 0.0000, 0.1661, 0.0820, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)(2, 1)-0.0100(1, 2)(0, 3)-0.0105**Order Three Moms** COV/Var -0.0110-0.0115-0.0120alpha data alpha fit

-0.0125

Time

Time

Single_up | NLLA Single_up(#233): [3.2247, 3.5306, 0.2174, 0.1838, 0.001184, 5.888e-18, 0.0000, 0.1583, 0.0873, 0.0106] (1, 0)(0, 1)Order Two Moms 1300 1300 1200 Order One Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0) alpha_data (2, 1)alpha_fit -0.007(1, 2)(0, 3)**Order Three Moms** -0.008alpha = COV/Var-0.009-0.010-0.011

Time

Time

Single_up | NLLA Single_up(#234): [3.7154, 4.0646, 0.2321, 0.1648, 0.00141, 0.0001736, 0.0000, 0.1659, 0.0686, 0.0000] 1700 40 (1, 0)(0, 1)1600 38 1500 Order One Moms Order Two Moms 1400 36 (2, 0)(1, 1)1300 (0, 2)34 1200 1100 32 1000 30 20 30 40 50 60 . 70 20 30 40 50 60 70 Time Time (3, 0)-0.01070000 (2, 1)-0.011(1, 2)(0, 3)-0.012Order Three Moms 60000 alpha = COV/Var-0.013-0.01450000 -0.01540000 -0.016alpha data -0.017alpha fit 30000

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Time

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Time

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Single_up | NLLA Single_up(#235): [3.6739, 4.1740, 0.2449, 0.1823, 0.001243, 9.729e-05, 0.0000, 0.1736, 0.0807, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0) -0.010(2, 1)(1, 2)(0, 3)**Order Three Moms** -0.011alpha = COV/Var-0.012-0.013alpha data alpha fit

-0.014

Time

Time

Single_up | NLLA Single_up(#236): [2.6360, 3.9624, 0.1663, 0.1835, 0.001099, 1.766e-14, 0.0000, 0.1228, 0.0822, 0.0029] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)-0.0100(2, 1) (1, 2)-0.0105(0, 3)Order Three Moms -0.0110-0.0115alpha -0.0120-0.0125alpha data -0.0130alpha fit

Time

Time

Single_up | NLLA Single_up(#237): [3.6372, 4.1278, 0.2469, 0.1827, 0.001235, 3.742e-05, 0.0000, 0.1764, 0.0807, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0100(3, 0) alpha data (2, 1) alpha fit -0.0105(1, 2)(0, 3)**Order Three Moms** = COV/Var-0.0110-0.0115alpha -0.0120-0.0125

Time

Time

Single_up | NLLA Single_up(#238): [3.1302, 3.8757, 0.2072, 0.1825, 0.001181, 3.171e-17, 0.0000, 0.1511, 0.0821, 0.0046] (1, 0)(0, 1) Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0085alpha data (3, 0)(2, 1)alpha fit (1, 2)-0.0090(0, 3)Order Three Moms = COV/Var-0.0095-0.0100-0.0105-0.0110-0.0115

Time

Time

Single_up | NLLA Single_up(#239): [2.8324, 4.0854, 0.1821, 0.1802, 0.001116, 9.375e-06, 0.0000, 0.1332, 0.0783, 0.0000] (1, 0) (0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)-0.0100(2, 1) (1, 2)-0.0105(0, 3)-0.0110-0.0115alpha -0.0120-0.0125alpha data alpha fit -0.0130

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#240): [4.1646, 4.0989, 0.2781, 0.1804, 0.001389, 4.265e-05, 0.0000, 0.1963, 0.0793, 0.0000] 1700 40 (1, 0)(0, 1)1600 38 1500 **Order Two Moms** Order One Moms 1400 36 (2, 0)(1, 1)1300 (0, 2)34 1200 1100 32 1000 30 20 30 40 50 60 70 20 30 40 50 60 70 Time Time -0.0100(3, 0)70000 (2, 1)-0.0105(1, 2)(0, 3)-0.0110Order Three Moms alpha = COV/Var60000 -0.0115-0.012050000 -0.0125-0.013040000 -0.0135alpha data alpha fit -0.014030000 20 40 50 60 70 50 60 70 30 20 30 40

Time

Time

Single_up | NLLA Single_up(#241): [2.8115, 3.9947, 0.1742, 0.1730, 0.001194, 2.381e-05, 0.0000, 0.1288, 0.0740, 0.0000] (1, 0)(0, 1) Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)-0.010(2, 1)(1, 2)-0.011(0, 3)alpha = COV/Var-0.012-0.013 -0.014alpha data

alpha fit

Time

Order Three Moms

Time

Single_up | NLLA Single_up(#242): [2.7751, 3.9449, 0.1786, 0.1777, 0.001115, 1.451e-13, 0.0000, 0.1314, 0.0788, 0.0007] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data (2, 1)-0.0105 alpha fit (1, 2)(0, 3)-0.0110alpha = COV/Var-0.0115-0.0120-0.0125

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#243): [3.9053, 3.9609, 0.2521, 0.1760, 0.001472, 7.589e-19, 0.0000, 0.1820, 0.0759, 0.0016] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.010(3, 0)(2, 1)-0.011(1, 2)(0, 3)alpha = COV/Var-0.012 -0.013 -0.014alpha data -0.015alpha fit

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#244): [2.7787, 4.0898, 0.1639, 0.1806, 0.001257, 1.022e-14, 0.0000, 0.1220, 0.0783, 0.0000] (1, 0)(0, 1)Order Two Moms 1300 1300 1200 Order One Moms (2, 0)(1, 1)(0, 2)Time Time alpha_data (3, 0)(2, 1)alpha_fit -0.010(1, 2)(0, 3)**Order Three Moms** -0.011alpha = COV/Var-0.012-0.013-0.014

-0.015

Time

Time

Single_up | NLLA Single_up(#245): [3.4194, 3.8381, 0.2252, 0.1821, 0.001282, 6.006e-17, 0.0000, 0.1636, 0.0816, 0.0059] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0090(3, 0)alpha_data (2, 1)alpha_fit -0.0095(1, 2)(0, 3)-0.0100= COV/Var -0.0105<u>a</u> -0.0110 -0.0115-0.0120

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#246): [3.1679, 3.6577, 0.2101, 0.1869, 0.001236, 1.388e-16, 0.0000, 0.1547, 0.0879, 0.0096] (1, 0)(0, 1) Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data -0.008(2, 1)alpha_fit (1, 2)(0, 3)-0.009**Order Three Moms** alpha = COV/Var-0.010-0.011-0.012

Time

Time

Single_up | NLLA Single_up(#247): [2.8671, 3.5417, 0.1953, 0.1773, 0.001053, 4.655e-15, 0.0000, 0.1422, 0.0825, 0.0083] (1, 0)(0, 1)Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data -0.007(2, 1)alpha fit (1, 2)(0, 3)-0.008Order Three Moms alpha = COV/Var-0.009-0.010-0.011

Time

Time

Single_up | NLLA Single_up(#248): [3.5477, 3.9204, 0.2346, 0.1795, 0.001249, 2.226e-16, 0.0000, 0.1677, 0.0798, 0.0023] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)-0.0100(2, 1)(1, 2)-0.0105(0, 3)= COV/Var-0.0110-0.0115-0.0120-0.0125alpha data -0.0130alpha fit

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#249): [2.5213, 3.7540, 0.1630, 0.1833, 0.001052, 3.544e-15, 0.0000, 0.1214, 0.0843, 0.0066] (1, 0)(0, 1) Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time alpha data (3, 0)(2, 1)-0.0085alpha_fit (1, 2)(0, 3)-0.0090**Order Three Moms** COV/Var -0.0095alpha = -0.0100-0.0105 -0.0110

-0.0115

Time

Time

Single_up | NLLA Single_up(#250): [3.4121, 4.0252, 0.2281, 0.1808, 0.001216, 5.59e-14, 0.0000, 0.1643, 0.0787, 0.0021] 1700 40 (1, 0)(0, 1)1600 38 1500 Order One Moms **Order Two Moms** 1400 (2, 0)36 (1, 1)1300 (0, 2)34 1200 1100 32 1000 30 20 30 40 50 60 70 20 30 40 50 60 70 Time Time -0.0090(3, 0)alpha_data 70000 alpha_fit (2, 1)-0.0095(1, 2)(0, 3)-0.010060000 -0.0105-0.011050000 alpha -0.011540000 -0.0120-0.012530000

Order Three Moms

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Time

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Time

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Single_up | NLLA Single_up(#251): [2.9420, 4.0151, 0.1963, 0.1798, 0.001021, 2.31e-05, 0.0000, 0.1401, 0.0801, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0) -0.0100(2, 1)(1, 2)-0.0105(0, 3)Order Three Moms COV/Var -0.0110 alpha -0.0115-0.0120alpha data alpha fit -0.0125

Time

Time

Single_up | NLLA Single_up(#252): [2.7293, 3.9782, 0.1692, 0.1789, 0.001156, 5.682e-17, 0.0000, 0.1252, 0.0783, 0.0014] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.010(3, 0) (2, 1)(1, 2)-0.011(0, 3)**Order Three Moms** alpha = COV/Var-0.012-0.013 -0.014alpha data

-0.015

Time

alpha fit

Time

Single_up | NLLA Single_up(#253): [3.1446, 3.6215, 0.2034, 0.1758, 0.001309, 5.655e-15, 0.0000, 0.1516, 0.0793, 0.0080] (1, 0)(0, 1) Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha_data -0.0090(2, 1)alpha fit (1, 2)-0.0095(0, 3)Order Three Moms COV/Var -0.0100alpha = -0.0105-0.0110-0.0115

Time

Time

Single_up | NLLA Single_up(#254): [2.5695, 4.0011, 0.1663, 0.1742, 0.001016, 6.642e-05, 0.0000, 0.1219, 0.0764, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data -0.010(2, 1)alpha fit (1, 2) (0, 3)-0.011alpha = COV/Var-0.012-0.013 -0.014

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#255): [3.2007, 4.1562, 0.2090, 0.1832, 0.00117, 3.334e-05, 0.0000, 0.1499, 0.0802, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0095(3, 0) alpha_data -0.0100(2, 1)alpha fit (1, 2)-0.0105(0, 3) **Order Three Moms** COV/Var -0.0110-0.0115-0.0120alpha -0.0125-0.0130-0.0135

Time

Time

Single_up | NLLA Single_up(#256): [2.5483, 3.9164, 0.1577, 0.1823, 0.001111, 4.118e-15, 0.0000, 0.1176, 0.0813, 0.0038] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0) alpha data -0.0095(2, 1)alpha fit (1, 2)-0.0100(0, 3)**Order Three Moms** COV/Var -0.0105-0.0110alpha -0.0115-0.0120

-0.0125

Time

Time

Single_up | NLLA Single_up(#257): [3.2998, 4.1215, 0.2135, 0.1751, 0.001213, 0.0001318, 0.0000, 0.1530, 0.0760, 0.0000] (1, 0)(0, 1)Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha_data -0.010(2, 1) alpha_fit (1, 2)-0.011(0, 3)alpha = COV/Var-0.012 -0.013-0.014-0.015

-0.016

Time

Order Three Moms

Time

Single_up | NLLA Single_up(#258): [3.4679, 4.1039, 0.2299, 0.1697, 0.001124, 0.0002018, 0.0000, 0.1613, 0.0734, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.010 (3, 0)(2, 1)(1, 2) -0.011(0, 3)Order Three Moms alpha = COV/Var-0.012 -0.013-0.014alpha data -0.015alpha fit

Time

Time

Single_up | NLLA Single_up(#259): [3.9936, 4.0580, 0.2726, 0.1797, 0.001282, 3.911e-05, 0.0000, 0.1922, 0.0793, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0100(3, 0) (2, 1)-0.0105(1, 2)(0, 3)-0.0110**Order Three Moms** COV/Var -0.0115alpha = -0.0120-0.0125-0.0130alpha data alpha fit -0.0135

Time

Time

Single_up | NLLA Single_up(#260): [3.1678, 3.9830, 0.2059, 0.1806, 0.001159, 1.026e-14, 0.0000, 0.1480, 0.0800, 0.0016] 1700 40 (1, 0)(0, 1)1600 38 1500 Order One Moms **Order Two Moms** 1400 (2, 0)36 (1, 1)1300 (0, 2)34 1200 1100 32 1000 20 30 40 50 60 70 20 30 40 50 60 70 Time Time (3, 0)-0.009570000 (2, 1) (1, 2)-0.0100(0, 3)Order Three Moms 60000 = COV/Var-0.0105alpha data -0.0110alpha fit 50000 alpha -0.011540000 -0.0120-0.012530000 40 50 60 70 20 30 40 50 60 70 20 30

Time

Time

Single_up | NLLA Single_up(#261): [3.4415, 3.9530, 0.2189, 0.1843, 0.001381, 5.039e-15, 0.0000, 0.1603, 0.0825, 0.0037] (1, 0)(0, 1)Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time -0.010 (3, 0)(2, 1)(1, 2)(0, 3)-0.011**Order Three Moms** alpha = COV/Var-0.012-0.013 alpha data -0.014

Time

alpha fit

Time

Single_up | NLLA Single_up(#262): [4.4022, 4.0016, 0.2936, 0.1884, 0.001478, 9.657e-16, 0.0000, 0.2075, 0.0849, 0.0042] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0090(3, 0)alpha data (2, 1)alpha fit -0.0095(1, 2)-0.0100(0, 3)**Order Three Moms** COV/Var -0.0105-0.0110alpha -0.0115-0.0120-0.0125-0.0130

Time

Time

Single_up | NLLA Single_up(#263): [2.9307, 4.0803, 0.1876, 0.1808, 0.001111, 2.568e-12, 0.0000, 0.1354, 0.0788, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0100(3, 0)(2, 1)-0.0105(1, 2)(0, 3)-0.0110Order Three Moms -0.0115-0.0120alpha -0.0125 -0.0130alpha data -0.0135alpha fit

Time

Time

Single_up | NLLA Single_up(#264): [3.7827, 3.9675, 0.2582, 0.1819, 0.001278, 1.898e-15, 0.0000, 0.1846, 0.0812, 0.0020] 1700 40 (1, 0)(0, 1)1600 38 1500 Order One Moms **Order Two Moms** 1400 36 (2, 0)(1, 1)1300 (0, 2)34 1200 1100 32 1000 30 50 70 50 20 30 40 60 20 30 40 60 70 Time Time -0.0095alpha_data (3, 0)70000 (2, 1)alpha_fit -0.0100(1, 2)(0, 3)-0.010560000 = COV/Var -0.0110-0.011550000 -0.0120-0.012540000 -0.0130

-0.0135

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Time

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Order Three Moms

30000

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Time

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Single_up | NLLA Single_up(#265): [2.4432, 3.8751, 0.1567, 0.1806, 0.001031, 5.644e-15, 0.0000, 0.1168, 0.0815, 0.0031] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data -0.0095(2, 1)alpha fit (1, 2) -0.0100(0, 3)COV/Var -0.0105-0.0110alpha -0.0115 -0.0120-0.0125

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#266): [2.3949, 3.8145, 0.1472, 0.1816, 0.001148, 1.784e-15, 0.0000, 0.1133, 0.0820, 0.0056] 1700 40 (1, 0)(0, 1)1600 38 1500 Order One Moms **Order Two Moms** 1400 36 (2, 0)(1, 1)1300 (0, 2)34 1200 1100 32 1000 30 20 30 40 50 60 70 20 30 40 50 60 70 Time Time -0.0090(3, 0)alpha data 70000 (2, 1)alpha fit -0.0095(1, 2)(0, 3)-0.0100Order Three Moms 60000 COV/Var -0.010550000 -0.0110alpha = -0.011540000 -0.0120-0.012530000

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Time

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Time

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Single_up | NLLA Single_up(#267): [3.0827, 3.7298, 0.1985, 0.1803, 0.001254, 7.029e-14, 0.0000, 0.1463, 0.0816, 0.0072] (1, 0)(0, 1) Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0085alpha_data (3, 0)(2, 1)alpha_fit -0.0090(1, 2)(0, 3)-0.0095**Order Three Moms** COV/Var -0.0100alpha -0.0105-0.0110-0.0115

-0.0120

Time

Time

Single_up | NLLA Single_up(#268): [2.8905, 3.8665, 0.1863, 0.1701, 0.001088, 2.53e-05, 0.0000, 0.1340, 0.0745, 0.0000] 1700 40 (1, 0)(0, 1)1600 38 1500 **Order Two Moms** Order One Moms 1400 36 (2, 0)(1, 1)1300 (0, 2)34 1200 1100 32 1000 30 20 30 40 50 60 70 20 30 40 50 60 70 Time Time (3, 0)-0.0095 70000 (2, 1)-0.0100(1, 2) (0, 3)-0.010560000 -0.0110-0.011550000 -0.0120-0.012540000 -0.0130alpha data alpha fit -0.013530000

Order Three Moms

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Time

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Time

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Single_up | NLLA Single_up(#269): [3.6069, 3.9987, 0.2492, 0.1851, 0.001192, 2.524e-17, 0.0000, 0.1779, 0.0841, 0.0014] (1, 0)(0, 1) Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data (2, 1)alpha fit -0.0095(1, 2)(0, 3)-0.0100**Order Three Moms** COV/Var -0.0105alpha -0.0110-0.0115-0.0120

Time

Time

Single_up | NLLA Single_up(#270): [4.7649, 3.5601, 0.3233, 0.1821, 0.001676, 3.668e-15, 0.0000, 0.2332, 0.0841, 0.0117] 1700 40 (1, 0)(0, 1) 1600 38 1500 Order One Moms **Order Two Moms** 1400 (2, 0)36 (1, 1)1300 (0, 2)34 1200 1100 32 1000 30 20 30 40 50 60 70 20 30 40 50 60 70 Time Time (3, 0)alpha data -0.008570000 (2, 1)alpha fit (1, 2)-0.0090(0, 3)60000 -0.0095COV/Var -0.010050000 alpha -0.0105-0.011040000 -0.0115-0.0120

Order Three Moms

30000

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Time

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Time

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Single_up | NLLA Single_up(#271): [3.1978, 3.8142, 0.2100, 0.1794, 0.00116, 9.155e-14, 0.0000, 0.1509, 0.0816, 0.0034] 1700 40 (1, 0)(0, 1)1600 38 1500 Order One Moms **Order Two Moms** 1400 (2, 0)36 (1, 1)1300 (0, 2)34 1200 1100 32 1000 30 20 30 40 50 60 70 20 30 40 50 60 70 Time Time -0.0090(3, 0)70000 (2, 1)-0.0095(1, 2)(0, 3)-0.0100alpha = COV/Var60000 -0.0105-0.011050000 -0.0115-0.012040000 -0.0125alpha data alpha fit -0.0130

Order Three Moms

30000

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Time

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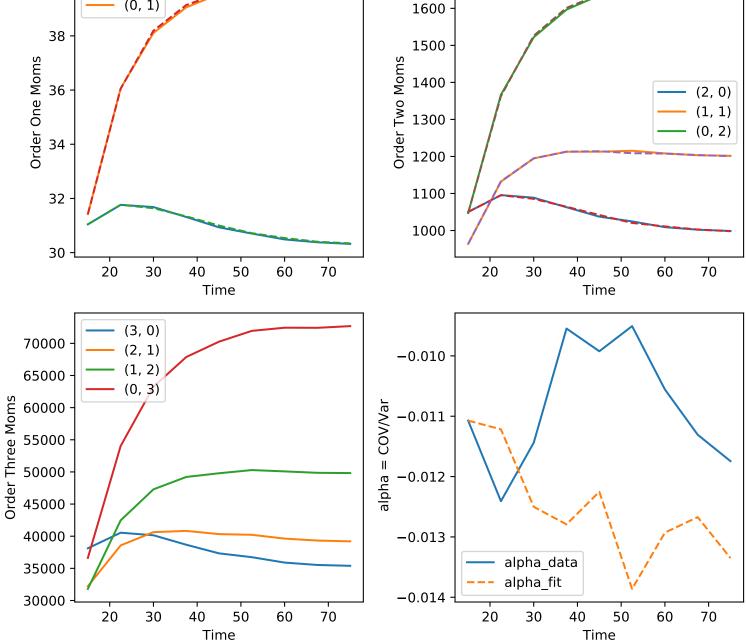
Time

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Single_up | NLLA Single_up(#272): [2.1307, 4.1226, 0.1287, 0.1800, 0.0009805, 6.101e-05, 0.0000, 0.0972, 0.0789, 0.0000] (1, 0)(0, 1)Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)



Single_up | NLLA Single_up(#273): [3.0002, 4.1389, 0.1962, 0.1803, 0.00107, 6.257e-05, 0.0000, 0.1402, 0.0788, 0.0000] 1700 40 (1, 0)(0, 1)1600 38 1500 Order One Moms **Order Two Moms** 1400 (2, 0)36 (1, 1)1300 (0, 2)34 1200 1100 32 1000 50 50 20 30 40 60 70 20 30 40 60 70 Time Time -0.0090(3, 0)alpha data 70000 (2, 1) alpha fit -0.0095(1, 2)-0.0100(0, 3)60000 = COV/Var-0.0105-0.011050000 -0.0115-0.012040000 -0.0125-0.013030000

Order Three Moms

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Time

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Time

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Single_up | NLLA Single_up(#274): [3.0985, 4.0275, 0.2027, 0.1794, 0.001172, 4.871e-16, 0.0000, 0.1472, 0.0786, 0.0002] (1, 0)(0, 1) Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)(2, 1)-0.0105(1, 2)(0, 3)Order Three Moms -0.0110= COV/Var -0.0115alpha -0.0120-0.0125alpha data alpha fit

Time

Time

Single_up | NLLA Single_up(#275): [3.4168, 3.8407, 0.2284, 0.1800, 0.001236, 6.116e-15, 0.0000, 0.1651, 0.0819, 0.0029] 1700 -(1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)(2, 1)-0.010(1, 2)(0, 3)Order Three Moms alpha = COV/Var-0.011-0.012-0.013alpha data alpha fit -0.014

Time

Time

Single_up | NLLA Single_up(#276): [3.8271, 4.0796, 0.2571, 0.1815, 0.001258, 1.638e-05, 0.0000, 0.1816, 0.0801, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)-0.0105(2, 1)(1, 2)-0.0110(0, 3)Order Three Moms alpha = COV/Var-0.0115 -0.0120-0.0125-0.0130alpha data -0.0135alpha fit

Time

Time

Single_up | NLLA Single_up(#277): [2.6228, 3.8801, 0.1633, 0.1752, 0.001115, 6.117e-16, 0.0000, 0.1209, 0.0770, 0.0014] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0) alpha_data -0.0100(2, 1)alpha_fit (1, 2) -0.0105(0, 3)**Order Three Moms** = COV/Var-0.0110-0.0115-0.0120-0.0125-0.0130

Time

Time

Single_up | NLLA Single_up(#278): [3.6179, 3.9997, 0.2371, 0.1750, 0.001336, 2.99e-05, 0.0000, 0.1712, 0.0759, 0.0000] (1, 0)(0, 1)**Order Two Moms** Order One Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0)(2, 1) -0.011(1, 2)(0, 3)alpha = COV/Var-0.012 -0.013-0.014alpha data alpha fit -0.015

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#279): [1.9688, 3.8395, 0.1196, 0.1808, 0.0009364, 1.917e-15, 0.0000, 0.0916, 0.0814, 0.0044] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0) alpha_data (2, 1)-0.0090alpha_fit (1, 2)(0, 3)-0.0095**Order Three Moms** = COV/Var-0.0100alpha : -0.0105 -0.0110

Time

Time

Single_up | NLLA Single_up(#280): [5.0589, 3.8085, 0.3470, 0.1653, 0.001538, 3.196e-17, 0.0000, 0.2418, 0.0701, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.009(3, 0)alpha data (2, 1)alpha fit (1, 2)-0.010(0, 3)**Order Three Moms** alpha = COV/Var-0.011-0.012-0.013-0.014

Time

Time

Single_up | NLLA Single_up(#281): [3.8643, 4.1519, 0.2625, 0.1857, 0.001262, 9.318e-15, 0.0000, 0.1858, 0.0819, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)-0.010(2, 1) (1, 2)(0, 3)-0.011Order Three Moms alpha = COV/Var-0.012-0.013alpha data -0.014alpha fit

Time

Time

Single_up | NLLA Single_up(#282): [2.4233, 3.8415, 0.1522, 0.1826, 0.001067, 1.04e-20, 0.0000, 0.1144, 0.0829, 0.0049] 1700 40 (1, 0)(0, 1) 1600 38 1500 Order One Moms **Order Two Moms** 1400 36 (2, 0)(1, 1)1300 (0, 2)1200 1100 32 1000 30 20 30 40 50 60 70 20 30 40 50 60 70 Time Time -0.0090(3, 0)alpha_data 70000 (2, 1)alpha_fit -0.0095(1, 2)(0, 3)-0.010060000 COV/Var -0.010550000 alpha -0.0110-0.011540000 -0.012030000

Order Three Moms

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Time

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Time

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Single_up | NLLA Single_up(#283): [2.5519, 3.9390, 0.1603, 0.1826, 0.001068, 5.985e-16, 0.0000, 0.1185, 0.0821, 0.0027] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data (2, 1)alpha fit -0.0095(1, 2)(0, 3)-0.0100-0.0105 alpha = -0.0110-0.0115-0.0120

-0.0125

Time

Order Three Moms

Time

Single_up | NLLA Single_up(#284): [2.3340, 4.1540, 0.1481, 0.1849, 0.0009582, 3.459e-05, 0.0000, 0.1090, 0.0818, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0090(3, 0)alpha_data -0.0095(2, 1)alpha_fit (1, 2)-0.0100(0, 3)**Order Three Moms** COV/Var -0.0105 -0.0110-0.0115alpha -0.0120-0.0125

-0.0130

Time

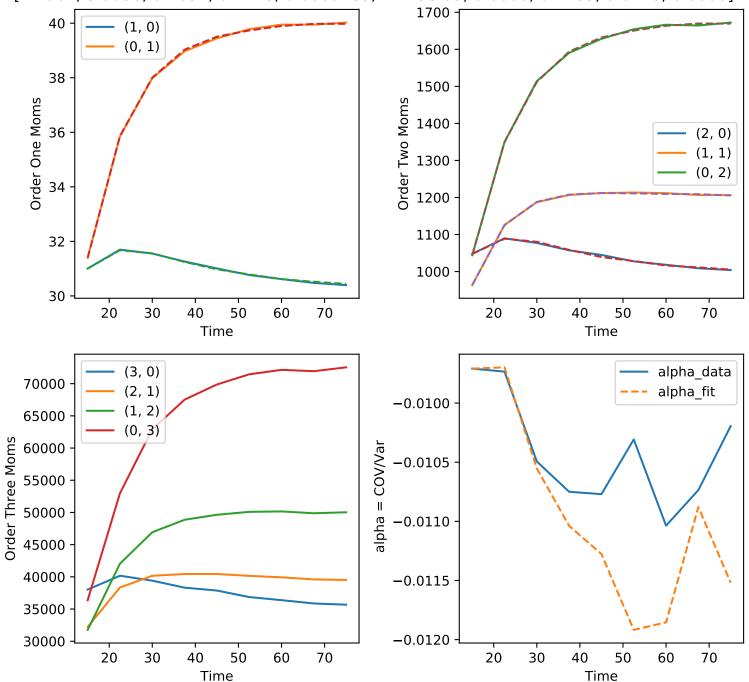
Time

Single_up | NLLA Single_up(#285): [3.0116, 3.7826, 0.2045, 0.1892, 0.001164, 7.585e-16, 0.0000, 0.1513, 0.0880, 0.0087] (1, 0)(0, 1)Order Two Moms 1300 1300 1200 Order One Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data (2, 1) alpha fit -0.008(1, 2)(0, 3)Order Three Moms alpha = COV/Var-0.009 -0.010-0.011

Time

Time

Single_up | NLLA Single_up(#286): [2.4902, 3.9036, 0.1637, 0.1748, 0.0009283, 1.715e-05, 0.0000, 0.1185, 0.0778, 0.0000]



Single_up | NLLA Single_up(#287): [3.8002, 3.9929, 0.2574, 0.1787, 0.00124, 2.868e-12, 0.0000, 0.1819, 0.0790, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)-0.0100(2, 1)(1, 2)-0.0105(0, 3)Order Three Moms COV/Var -0.0110-0.0115alpha -0.0120-0.0125alpha data alpha fit -0.0130

Time

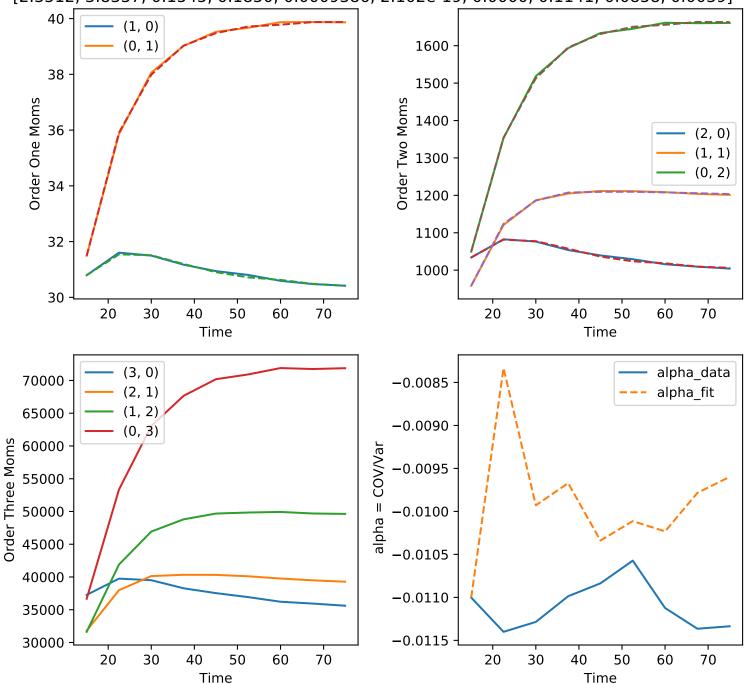
Time

Single_up | NLLA Single_up(#288): [3.9068, 4.1405, 0.2679, 0.1765, 0.001201, 0.0001748, 0.0000, 0.1872, 0.0783, 0.0000] (1, 0)(0, 1)**Order Two Moms** Order One Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data -0.010(2, 1)alpha fit (1, 2) -0.011(0, 3)Order Three Moms alpha = COV/Var-0.012-0.013 -0.014-0.015

Time

Time

Single_up | NLLA Single_up(#289): [2.3512, 3.8337, 0.1545, 0.1850, 0.0009386, 2.102e-19, 0.0000, 0.1141, 0.0858, 0.0039]



Single_up | NLLA Single_up(#290): [2.3136, 4.1267, 0.1369, 0.1834, 0.001113, 1.453e-15, 0.0000, 0.1047, 0.0801, 0.0000] (1, 0)(0, 1)Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0) alpha data -0.010(2, 1) alpha_fit (1, 2)(0, 3)-0.011Order Three Moms alpha = COV/Var-0.012-0.013-0.014

Time

Time

Single_up | NLLA Single_up(#291): [3.3438, 4.0735, 0.2141, 0.1821, 0.001322, 4.972e-17, 0.0000, 0.1564, 0.0791, 0.0016] (1, 0)(0, 1) Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.009(3, 0)(2, 1)(1, 2)-0.010(0, 3)Order Three Moms alpha = COV/Var-0.011-0.012-0.013alpha data -0.014alpha fit

Time

Time

Single_up | NLLA Single_up(#292): [2.8269, 3.9288, 0.1823, 0.1863, 0.001126, 9.431e-16, 0.0000, 0.1338, 0.0849, 0.0040] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0) alpha_data -0.0090(2, 1)alpha_fit (1, 2)-0.0095(0, 3)**Order Three Moms** = COV/Var-0.0100-0.0105alpha -0.0110-0.0115-0.0120

Time

Time

Single_up | NLLA Single_up(#293): [2.7338, 4.1723, 0.1669, 0.1647, 0.001123, 0.0002617, 0.0000, 0.1215, 0.0685, 0.0000] 1700 40 (1, 0)(0, 1)1600 38 1500 Order One Moms Order Two Moms 1400 36 (2, 0)(1, 1)1300 (0, 2)1200 1100 32 1000 30 20 30 40 50 60 70 20 30 40 50 60 70 Time Time -0.010(3, 0)70000 (2, 1) -0.011(1, 2)(0, 3)-0.01260000 alpha = COV/Var-0.013-0.01450000 -0.01540000 -0.016alpha data -0.017

alpha fit

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Time

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Order Three Moms

30000

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Time

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Single_up | NLLA Single_up(#294): [3.4350, 3.8803, 0.2150, 0.1772, 0.001428, 1.881e-18, 0.0000, 0.1584, 0.0763, 0.0051] (1, 0)(0, 1) Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)-0.0100(2, 1)(1, 2)-0.0105(0, 3)Order Three Moms = COV/Var -0.0110alpha data -0.0115alpha fit -0.0120-0.0125-0.0130-0.0135

Time

Time

Single_up | NLLA Single_up(#295): [2.9819, 3.6277, 0.1999, 0.1867, 0.001145, 2.343e-15, 0.0000, 0.1469, 0.0881, 0.0104] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data (2, 1)alpha fit -0.007(1, 2)(0, 3)-0.008Order Three Moms alpha = COV/Var-0.009 -0.010-0.011

-0.012

Time

Time

Single_up | NLLA Single_up(#296): [3.3982, 3.9273, 0.2195, 0.1803, 0.001374, 4.084e-14, 0.0000, 0.1620, 0.0793, 0.0038] (1, 0)(0, 1)Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2). 70 Time Time (3, 0)-0.010(2, 1)(1, 2) (0, 3)-0.011Order Three Moms alpha = COV/Var-0.012-0.013 alpha data -0.014alpha fit

Time

Time

Single_up | NLLA Single_up(#297): [2.8368, 4.2819, 0.1800, 0.1905, 0.001168, 6.335e-06, 0.0000, 0.1331, 0.0837, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)-0.0100(2, 1)(1, 2)-0.0105(0, 3)**Order Three Moms** -0.0110COV/Var -0.0115-0.0120alpha -0.0125-0.0130alpha data alpha fit -0.0135

Time

Time

Single_up | NLLA Single_up(#298): [3.1354, 4.1374, 0.2000, 0.1742, 0.001151, 0.000158, 0.0000, 0.1429, 0.0756, 0.0000] (1, 0)(0, 1)Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha_data (2, 1) alpha_fit -0.010(1, 2)(0, 3)-0.011alpha = COV/Var-0.012-0.013-0.014-0.015

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#299): [3.2658, 4.0117, 0.2169, 0.1788, 0.001179, 3.241e-16, 0.0000, 0.1560, 0.0786, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data (2, 1) alpha fit -0.010(1, 2) (0, 3)Order Three Moms alpha = COV/Var-0.011-0.012-0.013

Time

Time

Single_up | NLLA Single_up(#300): [4.2245, 4.1180, 0.2826, 0.1666, 0.001289, 0.0002458, 0.0000, 0.1952, 0.0714, 0.0000]1700 40 (1, 0)(0, 1)1600 38 1500 Order One Moms **Order Two Moms** 1400 (2, 0)36 (1, 1)1300 (0, 2)34 1200 1100 32 1000 30 20 30 40 50 60 70 20 30 40 50 60 70 Time Time (3, 0)-0.01070000 (2, 1)(1, 2) -0.011(0, 3)Order Three Moms alpha = COV/Var-0.01260000 -0.01350000 -0.014-0.01540000 -0.016alpha data alpha fit -0.01730000

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Time

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Time

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Single_up | NLLA Single_up(#301): [3.7175, 3.9765, 0.2316, 0.1713, 0.00147, 1.371e-05, 0.0000, 0.1676, 0.0725, 0.0000] (1, 0)(0, 1)**Order Two Moms** Order One Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data -0.010(2, 1)alpha fit (1, 2)(0, 3)-0.011alpha = COV/Var-0.012-0.013-0.014-0.015

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#302): [4.7943, 3.9331, 0.3386, 0.1708, 0.001359, 7.626e-05, 0.0000, 0.2352, 0.0750, 0.0000] (1, 0)(0, 1) Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time -0.0100(3, 0) (2, 1)-0.0105(1, 2) (0, 3)-0.0110COV/Var -0.0115alpha -0.0120-0.0125alpha data -0.0130alpha fit

Time

Time

Order Three Moms

Single_up | NLLA Single_up(#303): [3.4546, 3.9755, 0.2295, 0.1725, 0.001211, 8.169e-05, 0.0000, 0.1637, 0.0758, 0.0000] (1, 0)(0, 1) Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.010(3, 0)(2, 1)-0.011(1, 2)(0, 3)alpha = COV/Var-0.012-0.013-0.014alpha data -0.015

alpha fit

Time

Order Three Moms

Time

Single_up | NLLA Single_up(#304): [3.6134, 4.1757, 0.2376, 0.1847, 0.001363, 7.934e-14, 0.0000, 0.1729, 0.0804, 0.0000] 1700 40 (1, 0) (0, 1)1600 38 1500 Order One Moms **Order Two Moms** 1400 36 (2, 0)(1, 1)1300 (0, 2)34 1200 1100 32 1000 30 20 30 40 50 60 70 20 30 40 50 60 70 Time Time -0.0100(3, 0)70000 (2, 1)-0.0105(1, 2)(0, 3)-0.0110Order Three Moms 60000 = COV/Var-0.0115-0.012050000 -0.0125-0.013040000 -0.0135alpha data alpha fit -0.014030000 40 50 60 70 50 60 70 20 30 20 30 40

Time

Time

Single_up | NLLA Single_up(#305): [3.2147, 3.8590, 0.2079, 0.1704, 0.001238, 1.746e-15, 0.0000, 0.1510, 0.0739, 0.0000] (1, 0)(0, 1)Order Two Moms 1300 1300 1200 Order One Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data (2, 1)alpha fit -0.010(1, 2) (0, 3)Order Three Moms alpha = COV/Var-0.011 -0.012-0.013 -0.014

Time

Time

Single_up | NLLA Single_up(#306): [4.2114, 3.8218, 0.2885, 0.1719, 0.00137, 2.362e-16, 0.0000, 0.2044, 0.0754, 0.0017] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)(2, 1) -0.010(1, 2)(0, 3)alpha = COV/Var-0.011-0.012-0.013alpha_data alpha_fit

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#307): [2.8408, 3.8385, 0.1962, 0.1769, 0.001468, 7.027e-09, 0.0086, 0.1497, 0.0791, 0.0026] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)-0.0100(2, 1)(1, 2) -0.0105(0, 3)Order Three Moms COV/Var -0.0110 -0.0115alpha -0.0120-0.0125alpha data alpha fit -0.0130

Time

Time

Single_up | NLLA Single_up(#308): [3.7870, 4.0554, 0.2552, 0.1817, 0.00126, 1.974e-05, 0.0000, 0.1809, 0.0809, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0100(3, 0) (2, 1)-0.0105(1, 2)(0, 3)-0.0110**Order Three Moms** COV/Var -0.0115alpha -0.0120-0.0125alpha data -0.0130alpha fit

Time

Time

Single_up | NLLA Single_up(#309): [3.7509, 3.8598, 0.2413, 0.1736, 0.001468, 5.813e-14, 0.0000, 0.1760, 0.0750, 0.0031] (1, 0)(0, 1) Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2). 50 Time Time -0.010(3, 0)(2, 1)(1, 2) -0.011(0, 3)alpha = COV/Var-0.012-0.013-0.014alpha data alpha fit

-0.015

Time

Order Three Moms

Time

Single_up | NLLA Single_up(#310): [3.6049, 3.5968, 0.2322, 0.1753, 0.001427, 1.828e-15, 0.0000, 0.1699, 0.0787, 0.0089] (1, 0) (0, 1)Order Two Moms Order One Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0)-0.009(2, 1) (1, 2)(0, 3)Order Three Moms alpha = COV/Var-0.010-0.011-0.012alpha data alpha fit -0.013

Time

Time

Single_up | NLLA Single_up(#311): [2.3627, 3.9949, 0.1483, 0.1756, 0.0009674, 7.981e-05, 0.0000, 0.1085, 0.0781, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0100(3, 0) (2, 1)-0.0105(1, 2)(0, 3)-0.0110Order Three Moms COV/Var -0.0115alpha = -0.0120-0.0125-0.0130

-0.0135

Time

alpha data

alpha fit

Time

Single_up | NLLA Single_up(#312): [3.6225, 3.8916, 0.2469, 0.1789, 0.001231, 3.49e-14, 0.0000, 0.1769, 0.0795, 0.0025] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha_data (2, 1)alpha_fit -0.0095(1, 2) (0, 3)**Order Three Moms** -0.0100= COV/Var-0.0105 alpha -0.0110-0.0115

Time

Time

Single_up | NLLA Single_up(#313): [3.4732, 3.8314, 0.2299, 0.1892, 0.001357, 4.877e-16, 0.0000, 0.1694, 0.0870, 0.0084] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data -0.0085(2, 1)alpha fit -0.0090(1, 2)(0, 3)-0.0095Order Three Moms COV/Var -0.0100□ -0.0105 □ -0.0110 -0.0115-0.0120

Time

Time

Single_up | NLLA Single_up(#314): [5.5492, 4.0398, 0.3761, 0.1765, 0.001711, 5.12e-12, 0.0000, 0.2627, 0.0756, 0.0000] (1, 0)(0, 1)Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time -0.010(3, 0)(2, 1) (1, 2)-0.011(0, 3)alpha = COV/Var-0.012 -0.013-0.014alpha data -0.015alpha fit

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#315): [2.9896, 4.0527, 0.1978, 0.1808, 0.001097, 1.129e-16, 0.0000, 0.1432, 0.0794, 0.0001] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time alpha data (3, 0)-0.0095(2, 1)alpha_fit (1, 2)-0.0100(0, 3)**Order Three Moms** COV/Var -0.0105 -0.0110alpha : -0.0115 -0.0120-0.0125

Time

Time

Single_up | NLLA Single_up(#316): [3.4408, 4.1024, 0.2283, 0.1832, 0.001224, 2.584e-12, 0.0000, 0.1634, 0.0807, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0095alpha_data (3, 0)(2, 1)alpha_fit -0.0100(1, 2)(0, 3)-0.0105Order Three Moms -0.0110-0.0115alpha : -0.0120-0.0125-0.0130

Time

Time

Single_up | NLLA Single_up(#317): [3.9572, 3.9491, 0.2627, 0.1725, 0.001361, 2.892e-05, 0.0000, 0.1866, 0.0746, 0.0000] (1, 0)(0, 1)Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time -0.009(3, 0)alpha_data (2, 1)alpha fit (1, 2) -0.010(0, 3)**Order Three Moms** alpha = COV/Var-0.011-0.012-0.013

Time

Time

Single_up | NLLA Single_up(#318): [4.4541, 3.7487, 0.3051, 0.1887, 0.001485, 2.825e-16, 0.0000, 0.2176, 0.0860, 0.0111] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.007(3, 0)alpha_data (2, 1)alpha_fit (1, 2)-0.008(0, 3)Order Three Moms alpha = COV/Var-0.009 -0.010-0.011

Time

Time

Single_up | NLLA Single_up(#319): [3.2472, 4.0348, 0.2143, 0.1771, 0.001127, 7.132e-05, 0.0000, 0.1524, 0.0784, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)-0.0105(2, 1)(1, 2)-0.0110(0, 3)Order Three Moms -0.0115-0.0120alpha -0.0125-0.0130-0.0135alpha data alpha fit -0.0140

Time

Time

Single_up | NLLA Single_up(#320): [2.9188, 4.2542, 0.1886, 0.1912, 0.001161, 4.478e-15, 0.0000, 0.1385, 0.0847, 0.0000] (1, 0)(0, 1) Order Two Moms Order One Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha_data (2, 1)-0.010alpha fit (1, 2)(0, 3)-0.011Order Three Moms alpha = COV/Var-0.012 -0.013-0.014-0.015

Time

Time

Single_up | NLLA Single_up(#321): [3.1003, 4.1936, 0.1967, 0.1862, 0.001258, 7.389e-17, 0.0000, 0.1446, 0.0813, 0.0000] (1, 0)(0, 1) Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time -0.010 (3, 0)(2, 1) (1, 2)-0.011(0, 3)Order Three Moms alpha = COV/Var-0.012-0.013 alpha data -0.014alpha fit

Time

Time

Single_up | NLLA Single_up(#322): [2.5299, 3.7779, 0.1573, 0.1692, 0.001094, 5.006e-16, 0.0000, 0.1172, 0.0742, 0.0008] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)-0.0105 (2, 1)(1, 2)-0.0110(0, 3)COV/Var -0.0115 alpha = -0.0120-0.0125-0.0130alpha data

alpha fit

Time

Order Three Moms

Time

Single_up | NLLA Single_up(#323): [4.3265, 4.0573, 0.2923, 0.1839, 0.001501, 4.348e-14, 0.0000, 0.2094, 0.0809, 0.0020] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha_data (2, 1) alpha_fit -0.010(1, 2)(0, 3)**Order Three Moms** alpha = COV/Var-0.011 -0.012-0.013-0.014

Time

Time

Single_up | NLLA Single_up(#324): [3.1252, 3.8978, 0.2043, 0.1859, 0.001214, 6.476e-19, 0.0000, 0.1495, 0.0839, 0.0060] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0) alpha_data -0.0090(2, 1)alpha fit (1, 2)(0, 3)-0.0095Order Three Moms alpha = COV/Var-0.0100 -0.0105-0.0110

Time

Time

Single_up | NLLA Single_up(#325): [3.8723, 4.0260, 0.2517, 0.1759, 0.001389, 8.679e-17, 0.0000, 0.1799, 0.0752, 0.0003] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)-0.010(2, 1)(1, 2)(0, 3)-0.011Order Three Moms alpha = COV/Var-0.012-0.013 -0.014alpha data alpha fit -0.015

Time

Time

Single_up | NLLA Single_up(#326): [2.8156, 3.9372, 0.1811, 0.1808, 0.001127, 7.611e-16, 0.0000, 0.1331, 0.0805, 0.0023] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0090 (3, 0) (2, 1)-0.0095(1, 2)(0, 3)-0.0100Order Three Moms -0.0105-0.0110alpha -0.0115-0.0120alpha data -0.0125

-0.0130

Time

alpha fit

Time

Single_up | NLLA Single_up(#327): [3.2772, 3.8658, 0.2133, 0.1799, 0.001208, 3.264e-08, 0.0000, 0.1537, 0.0806, 0.0034] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0095(3, 0) alpha_data (2, 1)alpha_fit (1, 2)-0.0100(0, 3)**Order Three Moms** alpha = COV/Var-0.0105 -0.0110-0.0115

Time

Time

Single_up | NLLA Single_up(#328): [3.0782, 3.9930, 0.2025, 0.1816, 0.001184, 4.726e-16, 0.0000, 0.1479, 0.0810, 0.0011] (1, 0) (0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)-0.0105(2, 1)(1, 2)(0, 3)-0.0110Order Three Moms COV/Var -0.0115alpha = -0.0120-0.0125-0.0130alpha data alpha fit -0.0135

Time

Time

Single_up | NLLA Single_up(#329): [3.5034, 3.8178, 0.2321, 0.1834, 0.001353, 2.712e-16, 0.0000, 0.1707, 0.0830, 0.0064] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0090(3, 0) alpha_data (2, 1)alpha_fit -0.0095(1, 2)(0, 3)-0.0100**Order Three Moms** COV/Var -0.0105alpha : -0.0110-0.0115-0.0120-0.0125

Time

Time

Single_up | NLLA Single_up(#330): [3.3877, 3.8551, 0.2286, 0.1834, 0.001193, 1.048e-18, 0.0000, 0.1647, 0.0830, 0.0053] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0) alpha data -0.0085(2, 1)alpha fit -0.0090(1, 2)(0, 3)Order Three Moms -0.0095COV/Var -0.0100-0.0105alpha : -0.0110-0.0115-0.0120

Time

Time

Single_up | NLLA Single_up(#331): [3.3823, 4.1057, 0.2049, 0.1781, 0.001493, 6.487e-17, 0.0000, 0.1526, 0.0755, 0.0000] 1700 40 (1, 0)(0, 1)1600 38 1500 Order Jwo Moms 1300 1300 1200 Order One Moms 36 (2, 0)(1, 1)(0, 2)34 1100 32 1000 30 20 30 40 50 60 . 70 20 30 40 50 60 70 Time Time -0.010(3, 0)70000 (2, 1)-0.011(1, 2)(0, 3)-0.012Order Three Moms 60000 alpha = COV/Var-0.01350000 -0.014-0.01540000 -0.016alpha data -0.017alpha fit 30000

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Time

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Time

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Single_up | NLLA Single_up(#332): [3.3254, 4.1298, 0.2153, 0.1853, 0.001278, 4.341e-15, 0.0000, 0.1568, 0.0807, 0.0017] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0) -0.0100(2, 1)(1, 2)-0.0105(0, 3)**Order Three Moms** = COV/Var-0.0110-0.0115alpha -0.0120-0.0125alpha data alpha fit

-0.0130

Time

Time

Single_up | NLLA Single_up(#333): [2.5993, 4.0417, 0.1587, 0.1715, 0.001135, 0.0001036, 0.0000, 0.1179, 0.0738, 0.0000] 1700 40 (1, 0)(0, 1)1600 38 1500 Order Jwo 1400 1300 1200 Order One Moms 36 (2, 0)(1, 1)(0, 2)34 1100 32 1000 30 20 30 40 50 60 . 70 20 30 40 50 60 70 Time Time -0.010 (3, 0)70000 (2, 1)(1, 2)-0.011(0, 3)60000 alpha = COV/Var-0.012 -0.013 50000 -0.01440000 -0.015alpha data

alpha fit

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Time

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Order Three Moms

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Time

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Single_up | NLLA Single_up(#334): [5.0407, 3.8305, 0.3523, 0.1809, 0.001518, 4.119e-18, 0.0000, 0.2476, 0.0811, 0.0050] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2). 70 Time Time -0.0090(3, 0)alpha data (2, 1)alpha fit (1, 2)-0.0095(0, 3)Order Three Moms COV/Var -0.0100 alpha -0.0105-0.0110-0.0115

Time

Time

Single_up | NLLA Single_up(#335): [4.0551, 4.1096, 0.2809, 0.1858, 0.00127, 7.085e-17, 0.0000, 0.1985, 0.0833, 0.0000] 1700 -(1, 0)(0, 1)Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data -0.010alpha_fit (2, 1)(1, 2)(0, 3)alpha = COV/Var-0.011 -0.012 -0.013-0.014

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#336): [2.8702, 4.3510, 0.1854, 0.1903, 0.00114, 2.679e-05, 0.0000, 0.1357, 0.0822, 0.0000] (1, 0)(0, 1) Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0)-0.010(2, 1)(1, 2)-0.011(0, 3)alpha = COV/Var-0.012-0.013-0.014alpha data alpha fit

-0.015

Time

Order Three Moms

Time

Single_up | NLLA Single_up(#337): [4.0261, 4.1048, 0.2605, 0.1831, 0.001481, 6.531e-14, 0.0000, 0.1866, 0.0798, 0.0009] (1, 0)(0, 1)04 1400 ow 1300 1200 Order One Moms (2, 0)(1, 1)(0, 2)Time Time -0.010(3, 0) (2, 1)(1, 2)-0.011(0, 3)Order Three Moms alpha = COV/Var-0.012 alpha data alphaifit -0.013-0.014-0.015

Time

Time

Single_up | NLLA Single_up(#338): [3.8934, 4.0617, 0.2603, 0.1810, 0.00134, 7.674e-12, 0.0000, 0.1852, 0.0796, 0.0000] 1700 40 (1, 0)(0, 1)1600 38 1500 Order One Moms **Order Two Moms** 1400 36 (2, 0)(1, 1)1300 (0, 2)34 1200 1100 32 1000 30 20 30 40 50 60 70 20 30 40 50 60 70 Time Time -0.0100(3, 0)alpha data 70000 (2, 1) alpha fit -0.0105(1, 2)(0, 3)-0.011060000 COV/Var -0.011550000 alpha -0.0120-0.012540000 -0.0130-0.013530000

Order Three Moms

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Time

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Time

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Single_up | NLLA Single_up(#339): [3.3612, 4.0587, 0.2114, 0.1766, 0.00129, 2.573e-05, 0.0000, 0.1519, 0.0761, 0.0000] (1, 0)(0, 1)Order Two Moms Order One Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0)-0.010(2, 1) (1, 2)(0, 3)-0.011alpha = COV/Varalpha data -0.012 alpha_fit -0.013-0.014

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#340): [3.3575, 4.2794, 0.2101, 0.1872, 0.001367, 6.753e-05, 0.0000, 0.1539, 0.0822, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.010(3, 0) (2, 1)-0.011(1, 2)(0, 3)-0.012alpha = COV/Var-0.013-0.014-0.015alpha data -0.016alpha fit

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#341): [2.6683, 3.8020, 0.1741, 0.1887, 0.0011, 9.616e-16, 0.0000, 0.1298, 0.0879, 0.0073] (1, 0)(0, 1) Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data (2, 1) alpha fit -0.008(1, 2)(0, 3)alpha = COV/Var-0.009 -0.010-0.011-0.012

Time

Time

Order Three Moms

Single_up | NLLA Single_up(#342): [3.0751, 3.8316, 0.2064, 0.1808, 0.001097, 1.41e-15, 0.0000, 0.1488, 0.0821, 0.0038] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0) alpha_data (2, 1)alpha fit -0.0090(1, 2)(0, 3)-0.0095COV/Var -0.0100alpha -0.0105-0.0110-0.0115

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#343): [3.9348, 3.7908, 0.2651, 0.1809, 0.001372, 7.575e-14, 0.0000, 0.1902, 0.0825, 0.0048] (1, 0)(0, 1) 04er Jwo 1400 1300 1200 Order One Moms (2, 0)(1, 1)(0, 2) Time Time (3, 0)alpha data (2, 1) alpha fit -0.010(1, 2)(0, 3)Order Three Moms alpha = COV/Var-0.011 -0.012 -0.013

Time

Time

Single_up | NLLA Single_up(#344): [3.4052, 3.8904, 0.2187, 0.1778, 0.001322, 5.474e-17, 0.0000, 0.1587, 0.0787, 0.0026] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0105 (3, 0)(2, 1)(1, 2)-0.0110(0, 3)Order Three Moms COV/Var -0.0115 alpha -0.0120-0.0125alpha data alpha fit -0.0130

Time

Time

Single_up | NLLA Single_up(#345): [2.8672, 4.0521, 0.1831, 0.1815, 0.001168, 3.21e-14, 0.0000, 0.1349, 0.0802, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.010 (3, 0)(2, 1) (1, 2)-0.011(0, 3)alpha = COV/Var-0.012-0.013 -0.014alpha data alpha fit -0.015

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#346): [2.1669, 3.9980, 0.1254, 0.1807, 0.001116, 2.908e-14, 0.0000, 0.0977, 0.0788, 0.0028] 1700 40 (1, 0)(0, 1)1600 38 1500 Order One Moms **Order Two Moms** 1400 36 (2, 0)(1, 1)1300 (0, 2)34 1200 1100 32 1000 30 20 30 40 50 60 70 20 30 40 50 60 70 Time Time (3, 0)-0.009570000 (2, 1)(1, 2)-0.0100(0, 3)-0.010560000 -0.0110alpha = -0.011550000 -0.012040000 -0.0125alpha data -0.0130alpha fit

-0.0135

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Time

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Order Three Moms

30000

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Time

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Single_up | NLLA Single_up(#347): [3.5909, 4.1460, 0.2321, 0.1854, 0.001278, 6.214e-14, 0.0000, 0.1652, 0.0815, 0.0000] 1700 40 (1, 0)(0, 1)1600 38 1500 Order One Moms **Order Two Moms** 1400 (2, 0)36 (1, 1)1300 (0, 2)34 1200 1100 32 1000 50 50 20 30 40 60 70 20 30 40 60 70 Time Time -0.0095(3, 0)70000 (2, 1) -0.0100(1, 2)-0.0105(0, 3)60000 = COV/Var -0.0110-0.011550000 alpha -0.0120-0.012540000 -0.0130alpha data alpha fit -0.0135 30000

Order Three Moms

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Time

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Time

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Single_up | NLLA Single_up(#348): [3.0891, 3.9191, 0.1967, 0.1738, 0.001235, 1.98e-15, 0.0000, 0.1437, 0.0760, 0.0000] (1, 0)(0, 1)**Order Two Moms** Order One Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0)(2, 1) (1, 2)-0.011(0, 3)alpha = COV/Var-0.012 -0.013-0.014alpha data alpha fit

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#349): [3.8133, 3.9222, 0.2595, 0.1802, 0.001267, 7.66e-17, 0.0000, 0.1845, 0.0808, 0.0018] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha_data (2, 1) alpha_fit -0.0100(1, 2)(0, 3)= COV/Var-0.0105 -0.0110 alpha -0.0115-0.0120

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#350): [3.2113, 3.9672, 0.2038, 0.1756, 0.001307, 1.981e-14, 0.0000, 0.1497, 0.0755, 0.0013] (1, 0)(0, 1) Order Two Moms 1300 1300 1200 Order One Moms (2, 0)(1, 1)(0, 2)Time Time -0.010(3, 0)(2, 1) (1, 2)-0.011(0, 3)alpha = COV/Var-0.012 -0.013-0.014alpha data alpha fit -0.015

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#351): [3.4956, 3.9237, 0.2287, 0.1723, 0.001282, 2.366e-15, 0.0000, 0.1647, 0.0743, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha_data -0.010(2, 1)alpha_fit (1, 2)(0, 3)alpha = COV/Var-0.011-0.012-0.013

-0.014

Time

Order Three Moms

Time

Single_up | NLLA Single_up(#352): [2.0562, 4.1914, 0.1296, 0.1886, 0.0008833, 6.704e-18, 0.0000, 0.0966, 0.0835, 0.0000] (1, 0)(0, 1)Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time -0.00975(3, 0)(2, 1)-0.01000(1, 2)(0, 3)-0.01025**Order Three Moms** COV/Var -0.01050-0.01075alpha -0.01100-0.01125-0.01150alpha data alpha fit -0.01175

Time

Time

Single_up | NLLA Single_up(#353): [2.9675, 3.9017, 0.1923, 0.1816, 0.001157, 1.135e-14, 0.0000, 0.1404, 0.0820, 0.0028] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time alpha_data (3, 0)(2, 1)-0.0100alpha fit (1, 2) (0, 3)-0.0105Order Three Moms COV/Var -0.0110alpha -0.0115-0.0120

-0.0125

Time

Time

Single_up | NLLA Single_up(#354): [3.1376, 4.0538, 0.2046, 0.1871, 0.001234, 2.131e-15, 0.0000, 0.1503, 0.0841, 0.0021] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0) -0.0105(2, 1) (1, 2)-0.0110(0, 3)COV/Var -0.0115 -0.0120alpha : -0.0125-0.0130alpha data alpha fit

-0.0135

Time

Order Three Moms

Time

Single_up | NLLA Single_up(#355): [3.7805, 4.1393, 0.2502, 0.1869, 0.001357, 1.494e-16, 0.0000, 0.1799, 0.0815, 0.0024] Order One Moms **Order Two Moms** (2, 0)(1, 0)(1, 1)(0, 1)(0, 2)Time Time -0.0095(3, 0)(2, 1)-0.0100(1, 2)(0, 3)-0.0105**Order Three Moms** COV/Var -0.0110alpha -0.0115-0.0120-0.0125alpha data alpha fit

Time

Time

Single_up | NLLA Single_up(#356): [3.3332, 4.1722, 0.2161, 0.1854, 0.001245, 1.424e-17, 0.0000, 0.1557, 0.0811, 0.0000] 1700 40 (1, 0)(0, 1)1600 38 1500 Order One Moms **Order Two Moms** 1400 36 (2, 0)(1, 1)1300 (0, 2)34 1200 1100 32 1000 30 50 60 70 40 70 20 30 40 20 30 50 60 Time Time (3, 0) -0.010570000 (2, 1)(1, 2)-0.0110(0, 3)Order Three Moms 60000 -0.0115COV/Var -0.012050000 -0.0125alpha -0.013040000 -0.0135alpha data -0.0140alpha fit 30000

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Time

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Time

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Single_up | NLLA Single_up(#357): [4.3974, 4.0875, 0.2956, 0.1778, 0.001407, 1.899e-14, 0.0000, 0.2075, 0.0758, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0095(3, 0)alpha_data (2, 1)-0.0100alpha_fit (1, 2)-0.0105(0, 3)= COV/Var-0.0110-0.0115-0.0120-0.0125-0.0130

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#358): [2.9140, 3.6932, 0.1864, 0.1822, 0.001243, 2.288e-18, 0.0000, 0.1397, 0.0834, 0.0081] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0085(3, 0)alpha data (2, 1)alpha fit -0.0090(1, 2)(0, 3)-0.0095**Order Three Moms** COV/Var -0.0100-0.0105alpha -0.0110-0.0115

-0.0120

Time

Time

Single_up | NLLA Single_up(#359): [3.0513, 3.8059, 0.1997, 0.1791, 0.001214, 1.462e-15, 0.0000, 0.1471, 0.0808, 0.0042] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data -0.0100(2, 1) alpha fit (1, 2)(0, 3)-0.0105 alpha = COV/Var-0.0110-0.0115-0.0120

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#360): [2.5736, 4.0082, 0.1673, 0.1858, 0.001051, 1.42e-15, 0.0000, 0.1241, 0.0832, 0.0033] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)-0.0090 alpha data (2, 1)alpha fit (1, 2)-0.0095(0, 3)alpha = COV/Var-0.0100-0.0105-0.0110-0.0115 -0.0120

Time

Time

Order Three Moms

Single_up | NLLA Single_up(#361): [3.1658, 3.7807, 0.2093, 0.1811, 0.001187, 1.361e-08, 0.0000, 0.1519, 0.0819, 0.0060] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0085(3, 0)alpha data (2, 1) alpha fit (1, 2)-0.0090(0, 3)Order Three Moms COV/Var -0.0095 -0.0100alpha : -0.0105-0.0110-0.0115

Time

Time

Single_up | NLLA Single_up(#362): [2.6912, 3.9547, 0.1765, 0.1822, 0.001061, 5.014e-18, 0.0000, 0.1301, 0.0810, 0.0031] (1, 0)(0, 1)Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0)(2, 1)-0.0090(1, 2)(0, 3)-0.0095Order Three Moms COV/Var -0.0100alpha -0.0105-0.0110-0.0115alpha data alpha fit

Time

Time

Single_up | NLLA Single_up(#363): [4.4023, 3.9489, 0.3013, 0.1857, 0.00141, 2.658e-16, 0.0000, 0.2128, 0.0832, 0.0052] (1, 0) (0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2) Time Time (3, 0)alpha_data -0.0090(2, 1)alpha_fit (1, 2)(0, 3)-0.0095= COV/Var-0.0100alpha : -0.0105-0.0110

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#364): [3.3362, 4.1383, 0.2221, 0.1780, 0.001132, 0.0001342, 0.0000, 0.1573, 0.0785, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)-0.0105(2, 1) (1, 2)-0.0110(0, 3)-0.0115-0.0120-0.0125-0.0130-0.0135alpha data -0.0140alpha fit

-0.0145

Time

Order Three Moms

Time

Single_up | NLLA Single_up(#365): [3.9481, 3.6073, 0.2595, 0.1800, 0.001524, 1.635e-16, 0.0000, 0.1900, 0.0824, 0.0096] (1, 0)(0, 1)Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2). 70 Time Time (3, 0)alpha data (2, 1)-0.009alpha_fit (1, 2)(0, 3)-0.010Order Three Moms alpha = COV/Var-0.011-0.012-0.013-0.014

Time

Time

Single_up | NLLA Single_up(#366): [3.2280, 4.1359, 0.2060, 0.1819, 0.001298, 1.35e-13, 0.0000, 0.1510, 0.0784, 0.0000] (1, 0)(0, 1)Order Two Moms 1300 1300 1200 Order One Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0)(2, 1) -0.011(1, 2)(0, 3)alpha = COV/Var-0.012 -0.013 -0.014alpha data alpha fit

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#367): [3.2381, 4.1364, 0.2148, 0.1988, 0.001254, 1.154e-16, 0.0000, 0.1576, 0.0913, 0.0048] Order One Moms **Order Two Moms** (2, 0)(1, 0)(1, 1)(0, 1)(0, 2)Time Time -0.0090 (3, 0)alpha data (2, 1)alpha fit -0.0095(1, 2)(0, 3)**Order Three Moms** -0.0100COV/Var -0.0105-0.0110alpha -0.0115-0.0120-0.0125

Time

Time

Single_up | NLLA Single_up(#368): [3.2779, 4.0980, 0.2163, 0.1789, 0.001139, 3.826e-05, 0.0000, 0.1537, 0.0776, 0.0000] (1, 0)(0, 1) Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data -0.0090(2, 1)alpha fit -0.0095(1, 2)(0, 3)-0.0100**Order Three Moms** COV/Var -0.0105alpha = -0.0110-0.0115-0.0120-0.0125

Time

Time

Single_up | NLLA Single_up(#369): [4.1212, 3.8274, 0.2680, 0.1717, 0.001509, 3.301e-13, 0.0000, 0.1927, 0.0745, 0.0024] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data -0.010(2, 1)alpha fit (1, 2) -0.011(0, 3)alpha = COV/Var-0.012 -0.013-0.014-0.015-0.016

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#370): [3.1087, 3.6895, 0.1988, 0.1885, 0.001284, 3.499e-14, 0.0000, 0.1474, 0.0883, 0.0096] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data -0.008(2, 1)alpha fit (1, 2)(0, 3)**Order Three Moms** -0.009 alpha = COV/Var-0.010-0.011-0.012

Time

Time

Single_up | NLLA Single_up(#371): [1.5905, 4.3011, 0.0930, 0.1856, 0.0007718, 0.0001182, 0.0000, 0.0709, 0.0816, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0) alpha data (2, 1)alpha fit -0.0100(1, 2)(0, 3)-0.0105Order Three Moms COV/Var -0.0110alpha -0.0115-0.0120

-0.0125

Time

Time

Single_up | NLLA Single_up(#372): [3.6272, 4.0551, 0.2374, 0.1866, 0.00134, 2.377e-14, 0.0000, 0.1715, 0.0826, 0.0037] 1700 40 (1, 0)(0, 1)1600 38 1500 Order One Moms **Order Two Moms** 1400 (2, 0)36 (1, 1)1300 (0, 2)34 1200 1100 32 1000 30 20 30 40 50 60 70 20 30 40 50 60 70 Time Time -0.0095(3, 0)70000 (2, 1)-0.0100(1, 2)-0.0105(0, 3)60000 = COV/Var-0.0110 -0.011550000 -0.0120-0.012540000 -0.0130alpha data alpha fit -0.0135

Order Three Moms

30000

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Time

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Time

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Single_up | NLLA Single_up(#373): [3.6244, 4.0487, 0.2345, 0.1814, 0.001346, 5.289e-14, 0.0000, 0.1690, 0.0794, 0.0012] 1700 40 (1, 0)(0, 1)1600 38 1500 Order One Moms **Order Two Moms** 1400 36 (2, 0)(1, 1)1300 (0, 2)34 1200 1100 32 1000 30 20 30 40 50 60 70 20 30 40 50 60 70 Time Time -0.0100(3, 0)alpha_data 70000 (2, 1)alpha_fit -0.0105(1, 2)(0, 3)-0.0110= COV/Var60000 -0.0115-0.012050000 alpha -0.0125-0.013040000 -0.013530000 -0.0140

Order Three Moms

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Time

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Time

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Single_up | NLLA Single_up(#374): [2.9825, 3.9870, 0.1901, 0.1689, 0.001133, 0.0001201, 0.0000, 0.1370, 0.0732, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)(2, 1)-0.011(1, 2) (0, 3)Order Three Moms alpha = COV/Var-0.012 -0.013-0.014alpha data alpha fit -0.015

Time

Time

Single_up | NLLA Single_up(#375): [3.5442, 3.9773, 0.2380, 0.1736, 0.001244, 4.42e-05, 0.0000, 0.1710, 0.0757, 0.0000] 1700 -(1, 0)40 (0, 1)1600 38 1500 Order One Moms **Order Two Moms** 1400 (2, 0)36 (1, 1)1300 (0, 2)34 1200 1100 32 1000 20 30 40 50 60 70 20 30 40 50 60 70 Time Time (3, 0)70000 (2, 1)-0.011(1, 2) (0, 3)-0.012alpha = COV/Var60000 -0.013 50000 -0.01440000 -0.015alpha data -0.016alpha fit 30000 20 30 40 50 60 70 40 50 60 70 20 30

Time

Time

Order Three Moms

Single_up | NLLA Single_up(#376): [2.4519, 3.9716, 0.1564, 0.1856, 0.001061, 4.673e-14, 0.0000, 0.1174, 0.0835, 0.0034] (1, 0) (0, 1) Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha_data -0.0095(2, 1)alpha fit (1, 2)-0.0100(0, 3)**Order Three Moms** -0.0105 alpha -0.0110-0.0115-0.0120

Time

Time

Single_up | NLLA Single_up(#377): [2.8747, 4.1263, 0.1958, 0.1927, 0.001013, 6.804e-14, 0.0000, 0.1412, 0.0873, 0.0027] Order One Moms **Order Two Moms** (2, 0)(1, 0)(1, 1)(0, 1)(0, 2)Time Time (3, 0) alpha_data -0.0085(2, 1)alpha fit (1, 2)-0.0090(0, 3)**Order Three Moms** = COV/Var-0.0095 -0.0100-0.0105-0.0110-0.0115

Time

Time

Single_up | NLLA Single_up(#378): [3.1530, 4.1175, 0.2007, 0.1798, 0.001244, 1.059e-13, 0.0000, 0.1463, 0.0769, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.009 (3, 0)alpha data (2, 1)alpha fit (1, 2)-0.010(0, 3)Order Three Moms alpha = COV/Var-0.011-0.012-0.013

Time

Time

Single_up | NLLA Single_up(#379): [4.0600, 3.8838, 0.2744, 0.1883, 0.001388, 7.815e-16, 0.0000, 0.1961, 0.0869, 0.0054] (1, 0)(0, 1)Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0) alpha data -0.009(2, 1)alpha_fit (1, 2)(0, 3)**Order Three Moms** alpha = COV/Var-0.010-0.011-0.012-0.013

Time

Time

Single_up | NLLA Single_up(#380): [2.7929, 3.9913, 0.1886, 0.1887, 0.001073, 1.403e-15, 0.0000, 0.1389, 0.0846, 0.0054] (1, 0)(0, 1)Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data -0.008(2, 1)alpha fit (1, 2)(0, 3)**Order Three Moms** -0.009alpha = COV/Var-0.010-0.011-0.012

Time

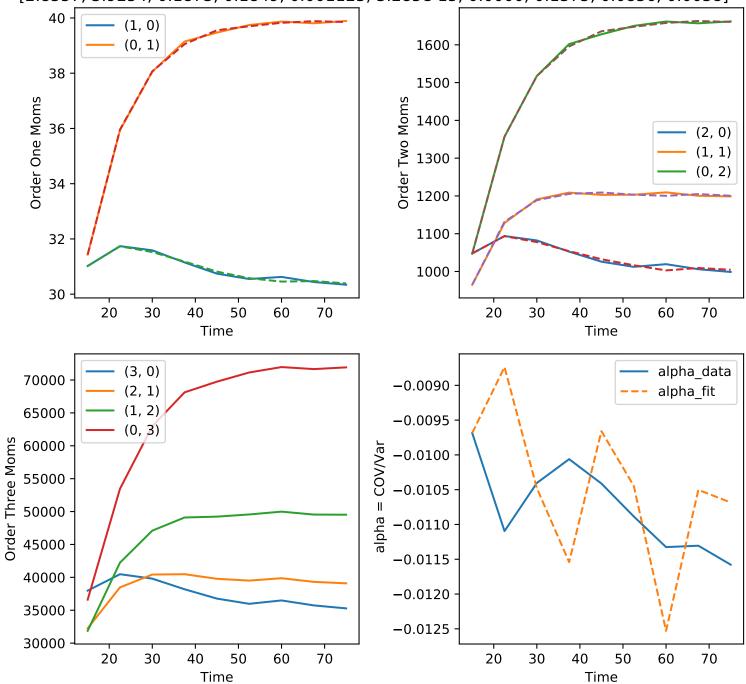
Time

Single_up | NLLA Single_up(#381): [3.1052, 4.1257, 0.2112, 0.1887, 0.001029, 4.81e-17, 0.0000, 0.1501, 0.0853, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha_data -0.0095(2, 1)alpha_fit (1, 2)-0.0100(0, 3)**Order Three Moms** COV/Var -0.0105 alpha = -0.0110-0.0115-0.0120

Time

Time

Single_up | NLLA Single_up(#382): [2.8557, 3.9254, 0.1873, 0.1849, 0.001123, 3.285e-15, 0.0000, 0.1375, 0.0836, 0.0038]



Single_up | NLLA Single_up(#383): [4.4105, 4.1168, 0.2958, 0.1740, 0.001447, 8.499e-05, 0.0000, 0.2089, 0.0737, 0.0000] 1700 40 (1, 0)(0, 1)1600 38 1500 Order One Moms **Order Two Moms** 1400 (2, 0)36 (1, 1)1300 (0, 2)34 1200 1100 32 1000 20 30 40 50 60 70 20 30 40 50 60 70 Time Time (3, 0)alpha_data 70000 (2, 1)-0.010alpha_fit (1, 2)(0, 3)-0.01160000 alpha = COV/Var-0.01250000 -0.013-0.01440000 -0.01530000 -0.016

Order Three Moms

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Time

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Time

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Single_up | NLLA Single_up(#384): [3.1702, 4.0275, 0.2124, 0.1781, 0.001089, 4.458e-05, 0.0000, 0.1516, 0.0786, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0) alpha data -0.009(2, 1)alpha_fit (1, 2) (0, 3)**Order Three Moms** alpha = COV/Var-0.010 -0.011-0.012

-0.013

Time

Time

Single_up | NLLA Single_up(#385): [3.4558, 4.0502, 0.2273, 0.1742, 0.001202, 9.469e-05, 0.0000, 0.1613, 0.0758, 0.0000] (1, 0)(0, 1)Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time -0.009(3, 0)alpha data (2, 1)alpha fit -0.010(1, 2) (0, 3)-0.011Order Three Moms alpha = COV/Var-0.012-0.013-0.014-0.015-0.016

Time

Time

Single_up | NLLA Single_up(#386): [3.0931, 4.1403, 0.1986, 0.1868, 0.001183, 1.047e-15, 0.0000, 0.1436, 0.0832, 0.0001] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0) alpha data -0.0095(2, 1)alpha fit (1, 2)-0.0100(0, 3)Order Three Moms -0.0105COV/Var -0.0110alpha = -0.0115-0.0120-0.0125-0.0130

Time

Time

Single_up | NLLA Single_up(#387): [2.1690, 4.1101, 0.1324, 0.1776, 0.0009291, 0.0001338, 0.0000, 0.0975, 0.0789, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.010(3, 0) alpha data (2, 1) alpha fit (1, 2) -0.011(0, 3)Order Three Moms alpha = COV/Var-0.012 -0.013 -0.014

Time

Time

Single_up | NLLA Single_up(#388): [3.4254, 4.1337, 0.2138, 0.1541, 0.001198, 0.0004634, 0.0000, 0.1489, 0.0651, 0.0000] (1, 0)(0, 1)Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time -0.010(3, 0)(2, 1)(1, 2)-0.012(0, 3)alpha = COV/Var-0.014-0.016-0.018alpha data -0.020

alpha fit

Time

Order Three Moms

Time

Single_up | NLLA Single_up(#389): [5.2871, 4.0431, 0.3614, 0.1770, 0.001644, 9.074e-15, 0.0000, 0.2533, 0.0763, 0.0000] 1700 -(1, 0)(0, 1)Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data (2, 1)alpha fit -0.010(1, 2)(0, 3)-0.011alpha = COV/Var-0.012-0.013 -0.014-0.015

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#390): [2.5513, 3.9469, 0.1639, 0.1817, 0.001032, 3.237e-15, 0.0000, 0.1206, 0.0813, 0.0023] (1, 0)(0, 1) Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0) alpha data -0.0095(2, 1)alpha fit (1, 2)(0, 3)-0.0100Order Three Moms COV/Var -0.0105 alpha -0.0110 -0.0115

-0.0120

Time

Time

Single_up | NLLA Single_up(#391): [3.8332, 4.0699, 0.2619, 0.1773, 0.001197, 7.355e-05, 0.0000, 0.1835, 0.0777, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)-0.010(2, 1) (1, 2)(0, 3)-0.011alpha = COV/Var-0.012-0.013-0.014alpha data alpha fit

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#392): [2.6891, 3.9095, 0.1697, 0.1772, 0.00112, 1.057e-16, 0.0000, 0.1255, 0.0787, 0.0013] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data (2, 1)alpha fit -0.0105(1, 2)(0, 3)-0.0110COV/Var -0.0115alpha = -0.0120-0.0125-0.0130

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#393): [3.5020, 4.1373, 0.2323, 0.1852, 0.001233, 2.204e-18, 0.0000, 0.1659, 0.0818, 0.0000] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time -0.0100(3, 0)-0.0105(2, 1)(1, 2)-0.0110(0, 3)**Order Three Moms** COV/Var -0.0115-0.0120alpha -0.0125-0.0130-0.0135alpha data -0.0140alpha fit

Time

Time

Single_up | NLLA Single_up(#394): [3.5526, 3.8195, 0.2297, 0.1694, 0.001357, 8.754e-15, 0.0000, 0.1667, 0.0731, 0.0016] 1700 -(1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data (2, 1)alpha fit -0.010(1, 2) (0, 3)alpha = COV/Var-0.011-0.012-0.013-0.014

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#395): [3.0633, 3.9364, 0.2111, 0.1910, 0.001033, 1.879e-16, 0.0000, 0.1514, 0.0882, 0.0056] (1, 0)(0, 1) Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha data -0.0075(2, 1)alpha fit (1, 2)-0.0080(0, 3)**Order Three Moms** -0.0085COV/Var -0.0090alpha = -0.0095-0.0100-0.0105-0.0110

Time

Time

Single_up | NLLA Single_up(#396): [3.9922, 4.0442, 0.2704, 0.1805, 0.001329, 4.496e-15, 0.0000, 0.1919, 0.0793, 0.0001] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)-0.009 alpha data (2, 1)alpha fit (1, 2)-0.010(0, 3)Order Three Moms alpha = COV/Var-0.011-0.012-0.013-0.014-0.015

Time

Time

Single_up | NLLA Single_up(#397): [3.8669, 3.8837, 0.2500, 0.1684, 0.001451, 5.654e-16, 0.0000, 0.1806, 0.0714, 0.0000] (1, 0) (0, 1)Order One Moms Order Two Moms (2, 0)(1, 1)(0, 2)Time Time (3, 0)-0.010(2, 1)(1, 2)(0, 3)-0.011Order Three Moms alpha = COV/Var-0.012alpha data alpha_fit -0.013 -0.014-0.015

Time

Time

Single_up | NLLA Single_up(#398): [4.2195, 3.9612, 0.2851, 0.1787, 0.001368, 4.115e-14, 0.0000, 0.2012, 0.0790, 0.0011] (1, 0)(0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)-0.0100(2, 1)(1, 2) -0.0105(0, 3)= COV/Var -0.0110-0.0115-0.0120-0.0125alpha data -0.0130alpha fit

Order Three Moms

Time

Time

Single_up | NLLA Single_up(#399): [4.0013, 4.1524, 0.2697, 0.1841, 0.001349, 2.071e-12, 0.0000, 0.1917, 0.0805, 0.0000] (1, 0) (0, 1)Order One Moms **Order Two Moms** (2, 0)(1, 1)(0, 2)Time Time (3, 0)alpha_data -0.0100(2, 1)alpha_fit (1, 2)-0.0105(0, 3)= COV/Var -0.0110-0.0115-0.0120-0.0125-0.0130

Order Three Moms

Time

Time