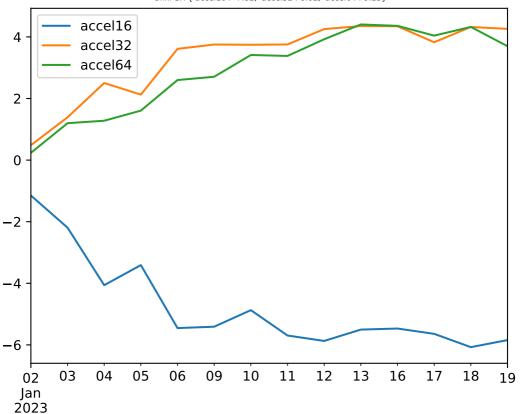
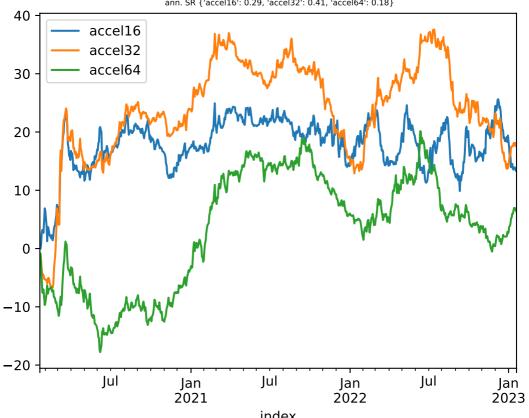
Total Trading Rule P&L for period 'YTD' ann. mean {'accel16': -106.863, 'accel32': 77.918, 'accel64': 67.643} ann. std {'accel16': 13.66, 'accel32': 9.037, 'accel64': 7.313} ann. SR {'accel16': -7.82, 'accel32': 8.62, 'accel64': 9.25}



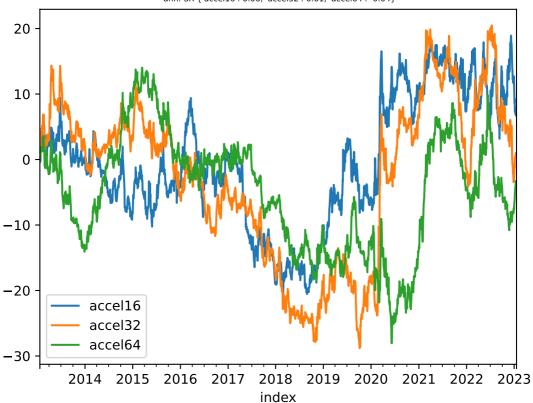
Total Trading Rule P&L for period '1Y'
ann. mean {'iaccel16': -5.697, 'accel32': 3.577, 'accel64': 1.148}
ann. std {'accel16: 16.18, 'accel32': 14.673, 'accel64': 11.732}
ann. SR {'accel16': -0.35, 'accel32': 0.24, 'accel64': 0.1}



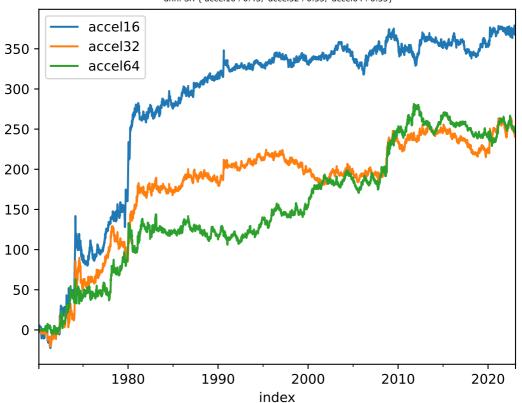
Total Trading Rule P&L for period '3Y'
ann. mean {'accel16': 4.435, 'accel32': 5.88, 'accel64': 2.052}
ann. std {'accel16': 15.036, 'accel32': 14.313, 'accel64': 11.67}
ann. SR {'accel16': 0.29, 'accel32': 0.41, 'accel64': 0.18}

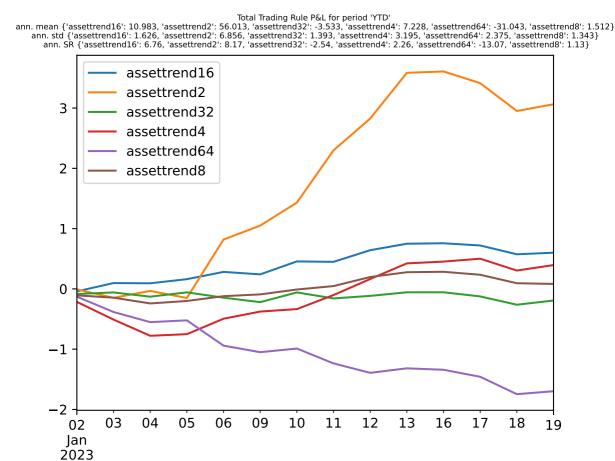


Total Trading Rule P&L for period '10Y' ann. mean {iaccel16': 0.674, 'accel32': 0.089, 'accel64': -0.392} ann. std {'accel16': 11.957, 'accel32': 11.222, 'accel64': 9.588} ann. SR {'accel16': 0.06, 'accel32': 0.01, 'accel64': -0.04}



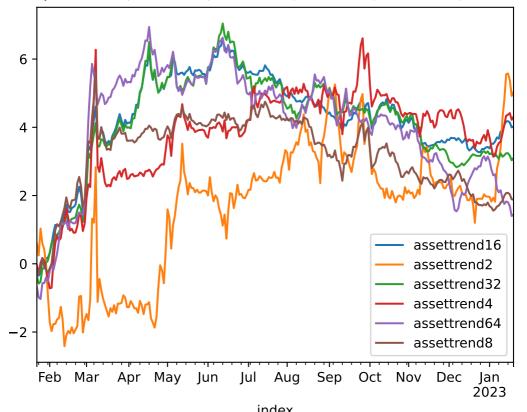
Total Trading Rule P&L for period '99Y' ann. mean {'accel16': 6.799, 'accel32': 4.532, 'accel64': 4.686} ann. std {'accel16': 15.729, 'accel32': 13.798, 'accel64': 13.323} ann. SR {'accel16': 0.43, 'accel32': 0.33, 'accel64': 0.35}





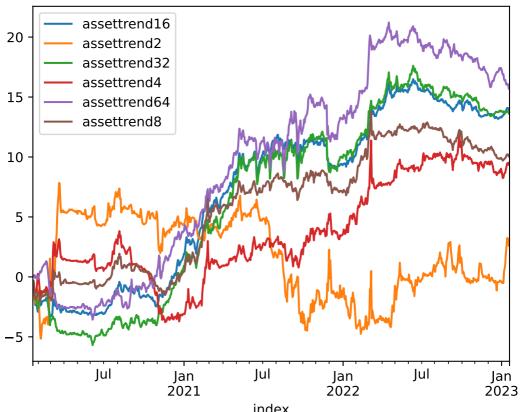
Total Trading Rule P&L for period '1Y'

ann. mean {'assettrend16': 3.961, 'assettrend2': 4.955, 'assettrend32': 3.055, 'assettrend4': 4.245, 'assettrend64': 1.424, 'assettrend8': 1.851} ann. Std {'assettrend16': 2.995, 'assettrend2': 7.727, 'assettrend32': 3.266, 'assettrend4': 5.652, 'assettrend64': 3.921, 'assettrend8': 3.653} ann. SR {'assettrend16': 1.32, 'assettrend2': 0.64, 'assettrend32': 0.94, 'assettrend4': 0.75, 'assettrend64': 0.36, 'assettrend8': 0.51}



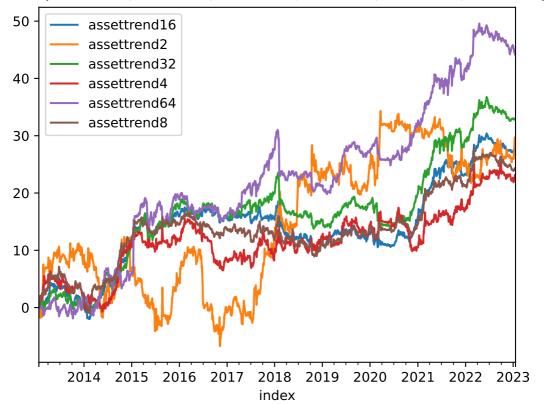
Total Trading Rule P&L for period '3Y'

ann. mean { 'assettrend16': 4.556, 'assettrend2': 0.881, 'assettrend32': 4.47, 'assettrend4': 3.08, 'assettrend64': 5.141, 'assettrend8': 3.276} ann. std { 'assettrend16': 3.601, 'assettrend2': 7.807, 'assettrend32': 4.417, 'assettrend4': 5.363, 'assettrend64': 5.136, 'assettrend8': 3.738} ann. SR { 'assettrend16': 1.27, 'assettrend2': 0.11, 'assettrend32': 1.01, 'assettrend4': 0.57, 'assettrend64': 1.0, 'assettrend8': 0.88



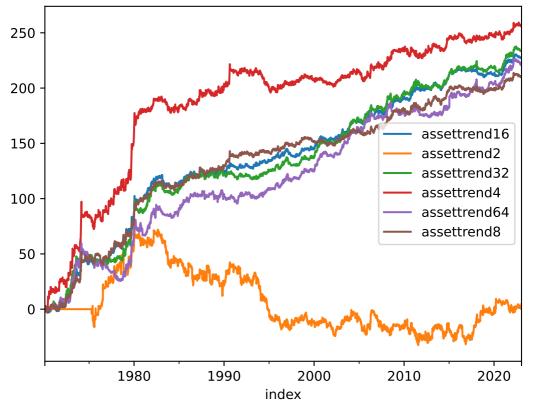
Total Trading Rule P&L for period '10Y'

ann. mean {'assettrend16': 2.733, 'assettrend2': 2.863, 'assettrend32': 3.222, 'assettrend4': 2.262, 'assettrend64': 4.327, 'assettrend8': 2.371} ann. std {'assettrend16': 3.265, 'assettrend2': 8.407, 'assettrend32': 3.742, 'assettrend4': 5.004, 'assettrend64': 5.3, 'assettrend64': 5.361} ann. SR {'assettrend16': 0.84, 'assettrend2': 0.34, 'assettrend2': 0.86, 'assettrend4': 0.45, 'assettrend64': 0.82, 'assettrend8': 0.67}



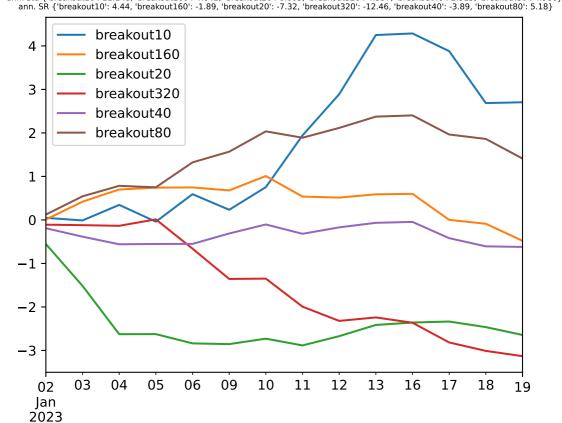
Total Trading Rule P&L for period '99Y'

ann. mean { 'assettrend16': 4.224, 'assettrend2': 0.078, 'assettrend32': 4.331, 'assettrend4': 4.763, 'assettrend64': 4.093, 'assettrend8': 3.891} ann. Std {'assettrend16': 4.659, 'assettrend2': 10.048, 'assettrend32': 4.894, 'assettrend4': 7.347, 'assettrend64': 5.469, 'assettrend8': 5.034} ann. SR {'assettrend16': 0.91, 'assettrend2': 0.01, 'assettrend32': 4.89, 'assettrend4': 0.65, 'assettrend64': 0.75, 'assettrend8': 0.77}



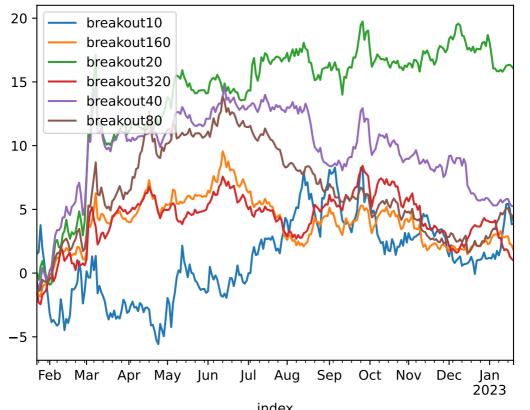
Total Trading Rule P&L for period 'YTD'

ann. mean {'breakout10': 49.458, 'breakout160': -8.769, 'breakout20': -48.343, 'breakout320': -57.252, 'breakout40': -11.341, 'breakout80': 25.805} ann. std {'breakout10': 11.148, 'breakout160': 4.642, 'breakout20': 6.605, 'breakout320': 4.597, 'breakout40': 2.915, 'breakout80': 4.986}



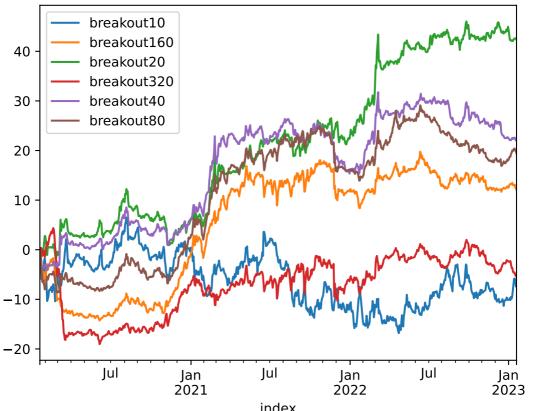
Total Trading Rule P&L for period '1Y'

ann. mean {'breakout10': 3.794, 'breakout160': 1.783, 'breakout20': 15.79, 'breakout320': 0.974, 'breakout40': 5.164, 'breakout80': 4.047} ann. std {'breakout10': 13.261, 'breakout160': 7.041, 'breakout20': 11.802, 'breakout320': 7.365, 'breakout40': 9.525, 'breakout80': 7.962} ann. SR {'breakout10': 0.29, 'breakout160': 0.25, 'breakout20': 1.34, 'breakout320': 0.13, 'breakout40': 0.54, 'breakout80': 0.51}



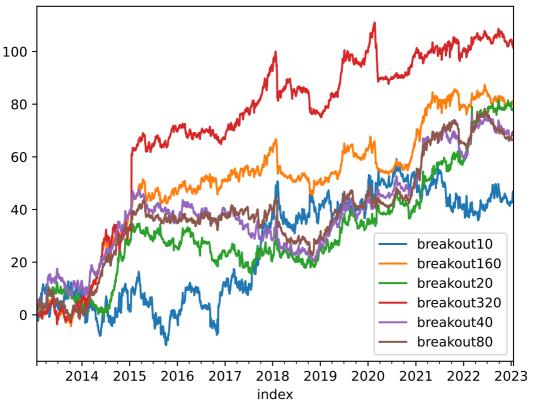
Total Trading Rule P&L for period '3Y'

ann. mean {'breakout10': -2.417, 'breakout160': 3.932, 'breakout20': 13.834, 'breakout320': -1.774, 'breakout40': 7.202, 'breakout80': 6.345} ann. std {'breakout10': 14.508, 'breakout160': 9.672, 'breakout20': 11.487, 'breakout320': 10.646, 'breakout40': 9.948, 'breakout80': 9.481} ann. SR {'breakout10': -0.17, 'breakout160': 0.41, 'breakout20': 1.2, 'breakout320': -0.17, 'breakout40': 0.72, 'breakout80': 0.67}



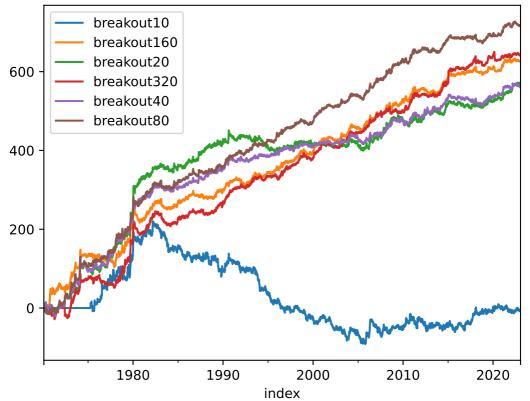
Total Trading Rule P&L for period '10Y'

ann. mean {'breakout10': 4.442, 'breakout160': 7.817, 'breakout20': 7.646, 'breakout320': 9.935, 'breakout40': 6.496, 'breakout80': 6.729} ann. std {'breakout10': 15.687, 'breakout160': 9.11, 'breakout20': 11.183, 'breakout320': 13.33, 'breakout40': 9.802, 'breakout80': 9.016} ann. SR {'breakout10': 0.28, 'breakout160': 0.86, 'breakout20': 0.68, 'breakout320': 0.75, 'breakout40': 0.66, 'breakout80': 0.75}



Total Trading Rule P&L for period '99Y'

ann. mean {'breakout10': -0.076, 'breakout160': 11.6, 'breakout20': 10.532, 'breakout320': 11.869, 'breakout40': 10.383, 'breakout80': 13.297} ann. std {'breakout10': 20.83, 'breakout160': 12.493, 'breakout20': 16.098, 'breakout320': 13.046, 'breakout40': 13.23, 'breakout80': 12.753} ann. SR {'breakout10': -0.0, 'breakout160': 0.93, 'breakout20': 0.65, 'breakout320': 0.91, 'breakout40': 0.78, 'breakout40': 1.04}

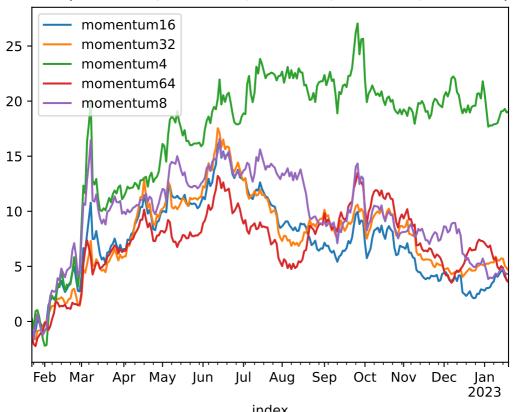


Total Trading Rule P&L for period 'YTD' ann. mean {'momentum16': 12.764, 'momentum32': -9.557, 'momentum4': -50.609, 'momentum64': -68.039, 'momentum8': -25.367} ann. std {'momentum16': 4.896, 'momentum32': 4.488, 'momentum4': 10.893, 'momentum64': 5.415, 'momentum8': 5.374} ann. SR {'momentum16': 2.61, 'momentum32': -2.13, 'momentum4': -4.65, 'momentum64': -12.56, 'momentum8': -4.72} 1 0 -1-2momentum16 -3momentum32 momentum4 momentum64 -4 momentum8 03 06 09 10 11 12 13 16 17 18 04 05 02 19 Jan

2023

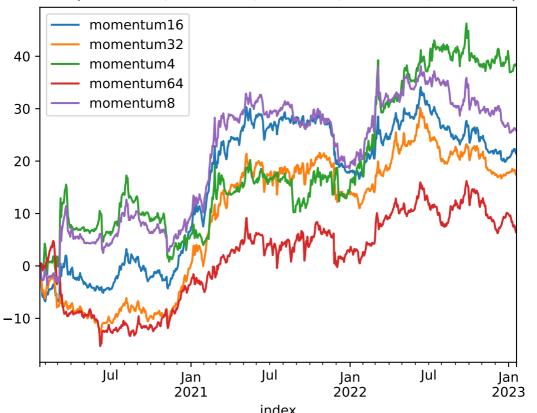
Total Trading Rule P&L for period '1Y'

ann. mean {'momentum16': 3.52, 'momentum32': 4.545, 'momentum4': 18.743, 'momentum64': 3.516, 'momentum8': 4.264} ann. std {'momentum16': 10.081, 'momentum32': 9.602, 'momentum4': 17.172, 'momentum64': 9.366, 'momentum8': 13.026} ann. SR {'momentum16': 0.35, 'momentum8': 0.37, 'momentum4': 1.09, 'momentum64': 0.38, 'momentum8': 0.33



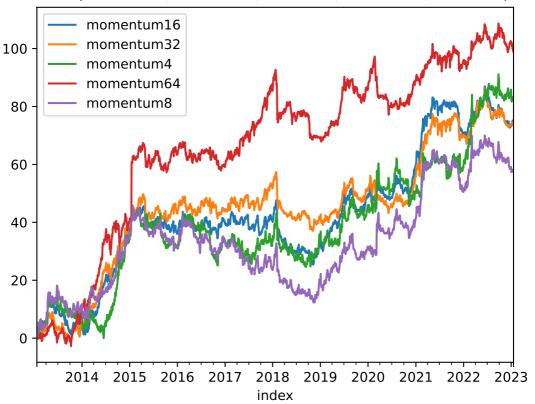
Total Trading Rule P&L for period '3Y'

ann. mean {'momentum16': 6.969, 'momentum32': 5.64, 'momentum4': 12.505, 'momentum64': 2.059, 'momentum8': 8.461} ann. std {'momentum16': 10.967, 'momentum32': 10.799, 'momentum4': 16.093, 'momentum64': 10.874, 'momentum8': 12.767} ann. SR {'momentum16': 0.64, 'momentum32': 0.52, 'momentum4': 0.78, 'momentum64': 0.19, 'momentum8': 0.66}



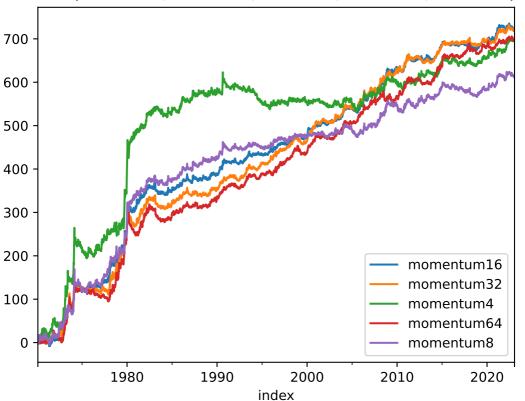
Total Trading Rule P&L for period '10Y'

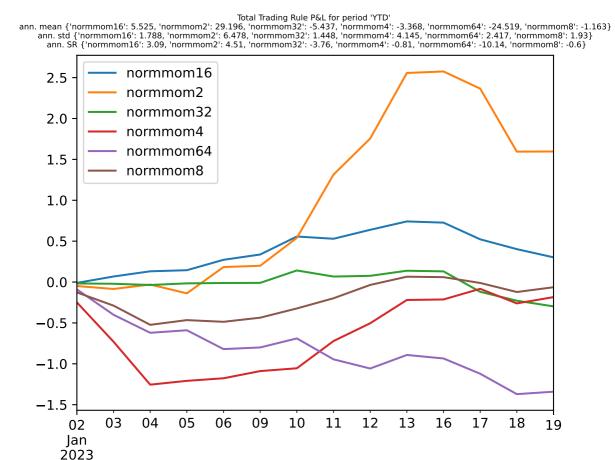
ann. mean {'momentum16': 7.277, 'momentum32': 7.195, 'momentum4': 8.153, 'momentum64': 9.691, 'momentum8': 5.667} ann. std {'momentum16': 9.943, 'momentum32': 9.486, 'momentum4': 13.696, 'momentum64': 12.004, 'momentum8': 11.302} ann. SR {'momentum16': 0.73, 'momentum32': 0.76, 'momentum4': 0.6, 'momentum64': 0.81, 'momentum8': 0.5}



Total Trading Rule P&L for period '99Y'

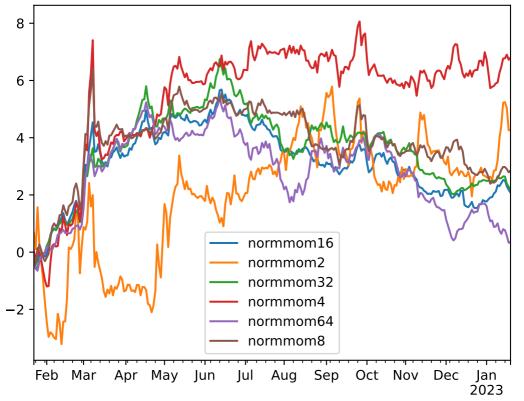
ann. mean {'momentum16': 13.389, 'momentum32': 13.316, 'momentum4': 12.886, 'momentum64': 12.891, 'momentum8': 11.333} ann. std {'momentum16': 14.219, 'momentum32': 13.849, 'momentum4': 20.074, 'momentum64': 13.487, 'momentum8': 15.868} ann. SR {'momentum16': 0.94, 'momentum32': 0.96, 'momentum4': 0.64, 'momentum64': 0.96, 'momentum8': 0.71





Total Trading Rule P&L for period '1Y'
: 4.198 'normmom32': 2.179, 'normmom4': 6.697, 'normmom64': 0.351, 'n

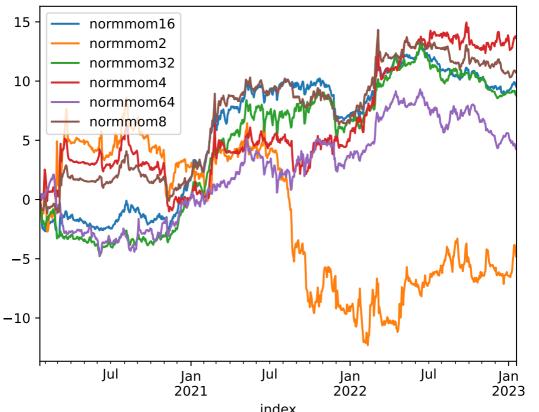
ann. mean {'normmom16': 2.049, 'normmom2': 4.198, 'normmom32': 2.179, 'normmom4': 6.697, 'normmom64': 0.351, 'normmom8': 2.806} ann. std {'normmom16': 3.116, 'normmom2': 8.002, 'normmom32': 3.103, 'normmom4': 5.954, 'normmom64': 3.417, 'normmom8': 4.182} ann. SR {'normmom16': 0.66, 'normmom2': 0.52, 'normmom32': 0.7, 'normmom4': 1.12, 'normmom64': 0.1, 'normmom8': 0.67}



index

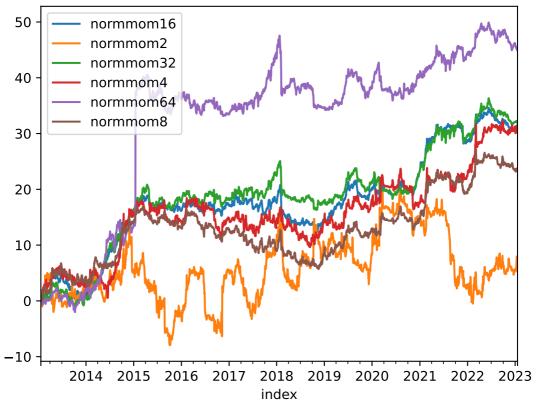
Total Trading Rule P&L for period '3Y'

ann. mean {'normmom16': 3.098, 'normmom2': -1.575, 'normmom32': 2.861, 'normmom4': 4.476, 'normmom64': 1.396, 'normmom8': 3.521} ann. std {'normmom16': 3.687, 'normmom2': 8.488, 'normmom32': 4.023, 'normmom4': 5.835, 'normmom64': 4.295, 'normmom8': 4.237} ann. SR {'normmom16': 0.84, 'normmom2': -0.19, 'normmom32': 0.71, 'normmom4': 0.77, 'normmom64': 0.33, 'normmom8': 0.83}



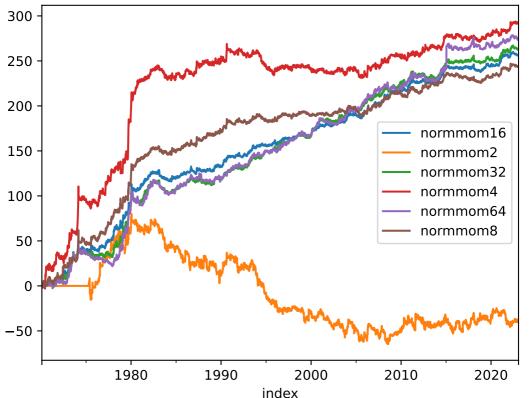
Total Trading Rule P&L for period '10Y'

ann. mean {'normmom16': 3.042, 'normmom2': 0.686, 'normmom32': 3.121, 'normmom4': 3.052, 'normmom64': 4.404, 'normmom8': 2.319} ann. std {'normmom16': 3.575, 'normmom2': 9.055, 'normmom32': 3.725, 'normmom4': 5.497, 'normmom64': 8.559, 'normmom8': 4.04} ann. SR {'normmom16': 0.85, 'normmom2': 0.08, 'normmom32': 0.84, 'normmom4': 0.56, 'normmom64': 0.51, 'normmom8': 0.57}



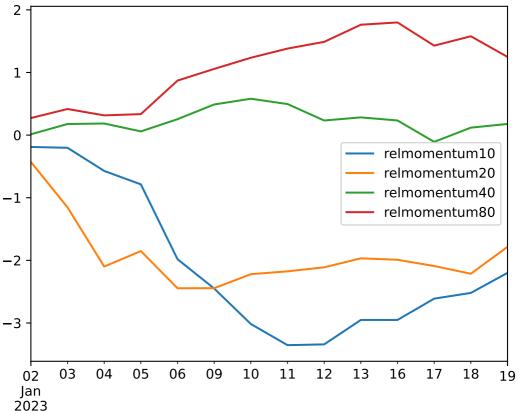
Total Trading Rule P&L for period '99Y'

ann. mean {'normmom16': 4.751, 'normmom2': -0.705, 'normmom32': 4.867, 'normmom4': 5.421, 'normmom64': 5.067, 'normmom8': 4.51} ann. std {'normmom16': 4.922, 'normmom2': 11.197, 'normmom32': 4.99, 'normmom4': 8.321, 'normmom64': 6.309, 'normmom8': 5.93} ann. SR {'normmom16': 0.97, 'normmom2': -0.06, 'normmom32': 0.98, 'normmom4': 0.65, 'normmom64': 0.8, 'normmom8': 0.76}



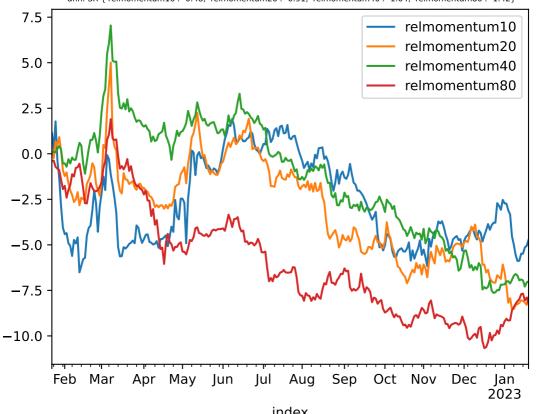
Total Trading Rule P&L for period 'YTD'

ann. mean {'relmomentum10': -40.226, 'relmomentum20': -32.628, 'relmomentum40': 3.259, 'relmomentum80': 22.835} ann. std {'relmomentum10': 6.781, 'relmomentum20': 6.393, 'relmomentum40': 2.791, 'relmomentum80': 3.78} ann. SR {'relmomentum10': -5.93, 'relmomentum20': -5.1, 'relmomentum40': 1.17, 'relmomentum80': 6.04}



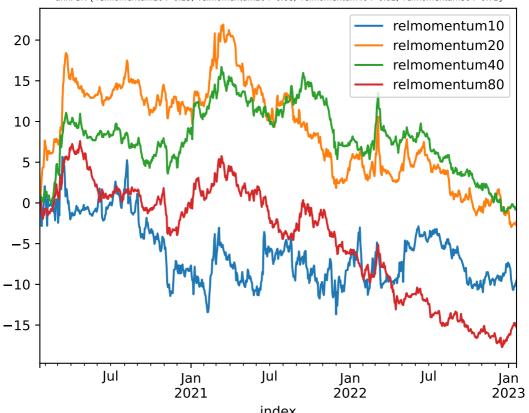
Total Trading Rule P&L for period '1Y'

ann. mean {'relmomentum10': -4.66, 'relmomentum20': -7.743, 'relmomentum40': -6.897, 'relmomentum80': -8.099} ann. std {'relmomentum10': 9.7, 'relmomentum20': 8.508, 'relmomentum40': 6.635, 'relmomentum80': 5.717} ann. SR {'relmomentum10': -0.48, 'relmomentum20': -0.91, 'relmomentum40': -1.04, 'relmomentum80': -1.42}



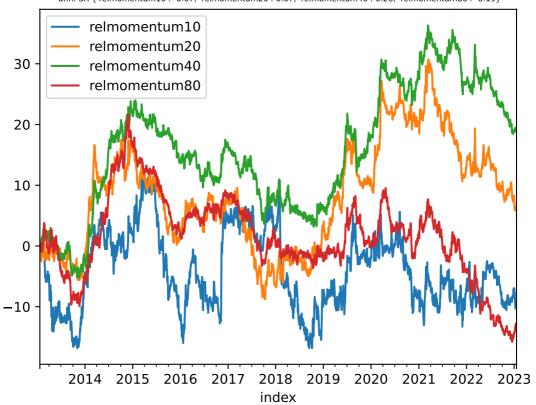
Total Trading Rule P&L for period '3Y'

ann. mean {'relmomentum10': -3.112, 'relmomentum20': -0.747, 'relmomentum40': -0.174, 'relmomentum80': -4.991} ann. std {'relmomentum10': 1.677, 'relmomentum20': 9.068, 'relmomentum40': 7.446, 'relmomentum80': 6.926} ann. SR {'relmomentum10': -0.25, 'relmomentum40': -0.02, 'relmomentum80': -0.72}



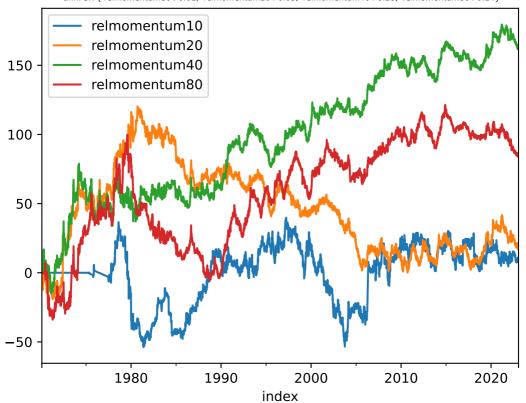
Total Trading Rule P&L for period '10Y'

ann. mean {'relmomentum10': -0.896, 'relmomentum20': 0.639, 'relmomentum40': 1.872, 'relmomentum80': -1.309} ann. std {'relmomentum10': 1.2.862, 'relmomentum20': 3.948, 'relmomentum40': 7.34, 'relmomentum80': 6.787} ann. SR {'relmomentum10': -0.07, 'relmomentum20': 0.07, 'relmomentum40': 0.26, 'relmomentum80': -0.19}



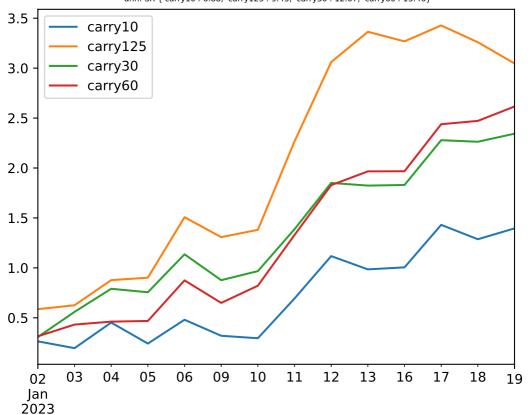
Total Trading Rule P&L for period '99Y'

ann. mean {'relmomentum10': 0.163, 'relmomentum20': 0.323, 'relmomentum40': 3.007, 'relmomentum80': 1.601} ann. std {'relmomentum10': 13.319, 'relmomentum20': 1.1.522, 'relmomentum40': 10.79, 'relmomentum80': 1.1.058} ann. SR {'relmomentum10': 0.01, 'relmomentum20': 0.03, 'relmomentum40': 0.28, 'relmomentum80': 0.14}



Total Trading Rule P&L for period 'YTD'

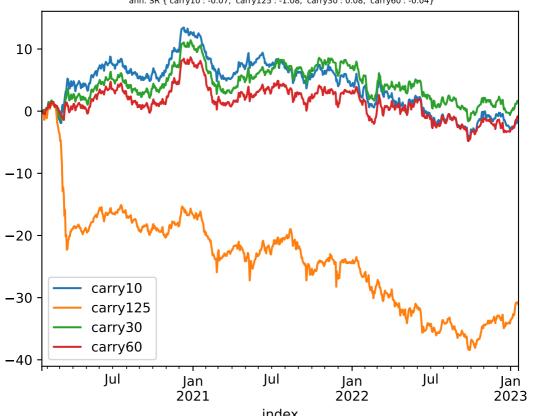
ann. mean {'carry10': 25.516, 'carry125': 55.716, 'carry30': 42.855, 'carry60': 47.83} ann. std {'carry10': 3.71, 'carry125': 5.909, 'carry30': 3.55, 'carry60': 3.552} ann. SR {'carry10': 6.88, 'carry125': 9.43, 'carry30': 12.07, 'carry60': 13.46}



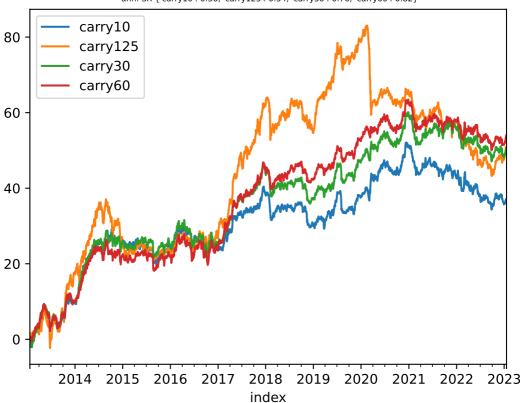
Total Trading Rule P&L for period '1Y'
ann. mean {'carry10': -4.124, 'carry125': -5.621, 'carry30': -3.298, 'carry60': -2.469}
ann. std {'carry10': 6.884, 'carry125': 7.704, 'carry30': 6.632, 'carry60': 6.75}
ann. SR {'carry10': -0.6, 'carry125': -0.73, 'carry30': -0.5, 'carry60': -0.37}



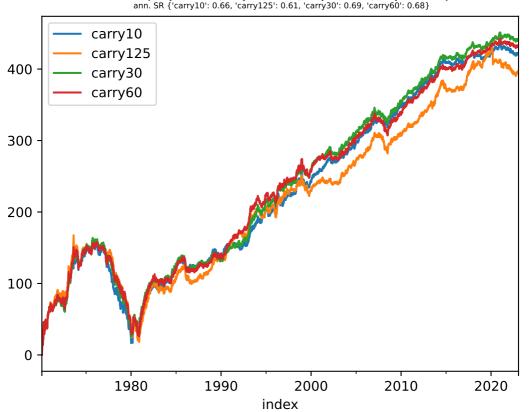
Total Trading Rule P&L for period '3Y'
ann. mean {'carry10': -0.509, 'carry125': -10.174, 'carry30': 0.561, 'carry60': -0.236}
ann. std {'carry10': 6.827, 'carry125': 9.446, 'carry30': 6.628, 'carry60': 6.564}
ann. SR {'carry10': -0.07, 'carry125': -1.08, 'carry30': 0.08, 'carry60': -0.04}



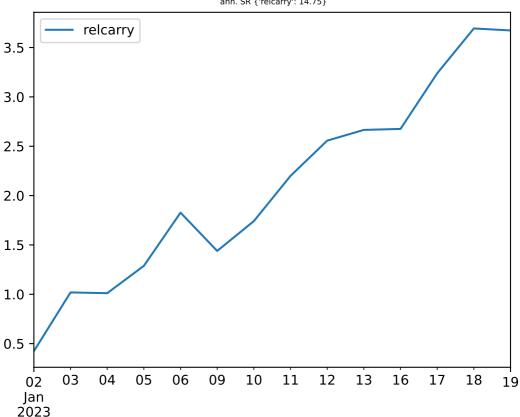
Total Trading Rule P&L for period '10Y' ann. mean {'carry10': 3.639, 'carry125': 4.962, 'carry30': 4.95, 'carry60': 5.308} ann. std {'carry10': 6.444, 'carry125': 9.132, 'carry30': 6.543, 'carry60': 6.506} ann. SR {'carry10': 0.56, 'carry125': 0.54, 'carry30': 0.76, 'carry60': 0.82}



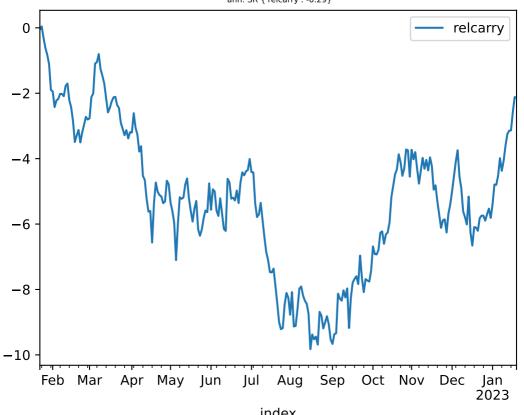
Total Trading Rule P&L for period '99Y'
ann. mean {'carry10': 7.803, 'carry125': 7.367, 'carry30': 8.18, 'carry60': 8.029}
ann. std {'carry10': 11.854, 'carry125': 12.096, 'carry30': 11.866, 'carry60': 11.817}
ann. SR {'carry10': 0.66, 'carry125': 0.61, 'carry30': 0.69, 'carry60': 0.68}



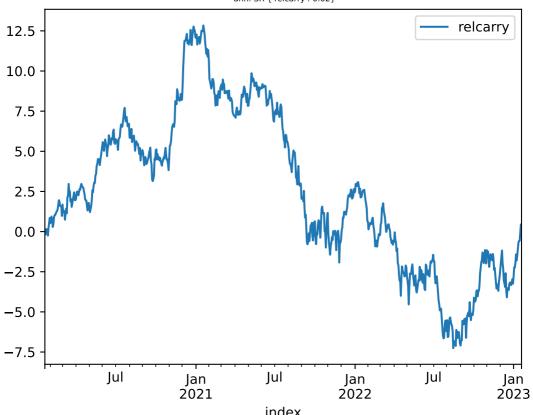
Total Trading Rule P&L for period 'YTD' ann. mean {'relcarry': 67.169} ann. std {'relcarry': 4.555} ann. SR {'relcarry': 14.75}



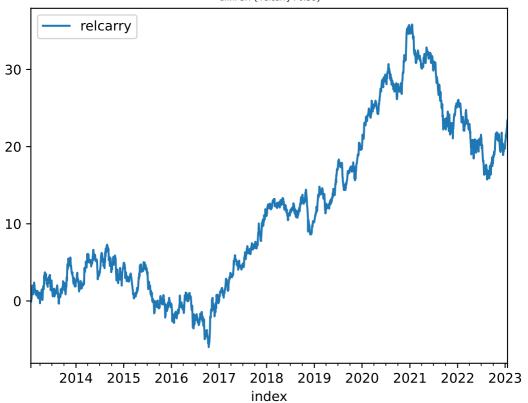
Total Trading Rule P&L for period '1Y' ann. mean {'relcarry': -2.105} ann. std {'relcarry': 7.251} ann. SR {'relcarry': -0.29}



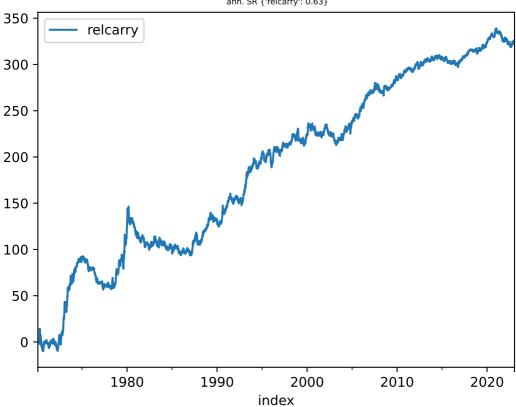
Total Trading Rule P&L for period '3Y' ann. mean {'relcarry': 0.14} ann. std {'relcarry': 6.842} ann. SR {'relcarry': 0.02}



Total Trading Rule P&L for period '10Y' ann. mean {'relcarry': 2.298} ann. std {'relcarry': 6.028} ann. SR {'relcarry': 0.38}

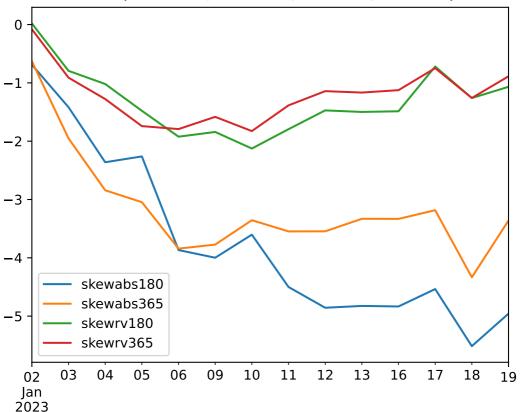


Total Trading Rule P&L for period '99Y' ann. mean {'relcarry': 6.049} ann. std {'relcarry': 9.555} ann. SR {'relcarry': 0.63}

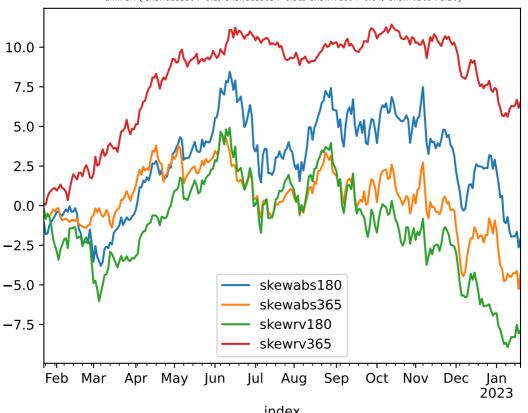


Total Trading Rule P&L for period 'YTD'

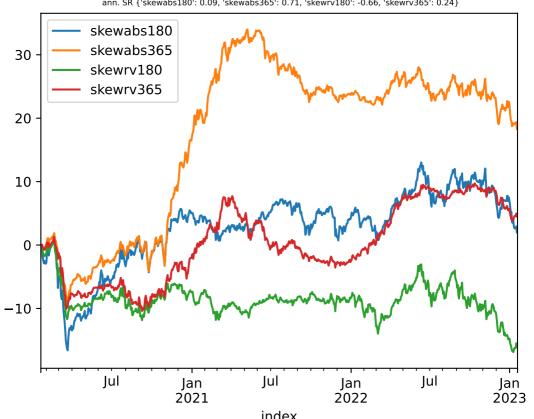
ann. mean {'skewabs180': -90.642, 'skewabs365': -61.45, 'skewrv180': -19.519, 'skewrv365': -16.228} ann. std {'skewabs180': 10.115, 'skewabs365': 10.274, 'skewrv180': 6.67, 'skewrv365': 6.109} ann. SR {'skewabs180': -8.96, 'skewabs365': -5.98, 'skewrv180': -2.93, 'skewrv365': -2.66}



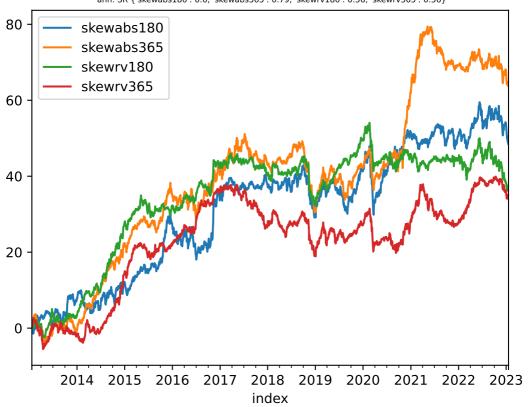
Total Trading Rule P&L for period '1Y' ann. mean {'skewabs180': -2.036, 'skewabs365': -4.23, 'skewrv180': -7.751, 'skewrv365': 6.442} ann. std {'skewabs180': 10.16, 'skewabs365': 8.272, 'skewrv180': 9.242, 'skewrv365': 5.108} ann. SR {'skewabs180': -0.2, 'skewabs365': -0.51, 'skewrv180': -0.84, 'skewrv365': 1.26}



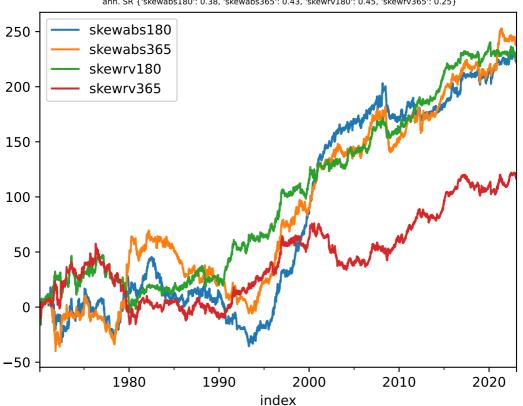
Total Trading Rule P&L for period '3Y' ann. mean {'skewabs180': 0.824, 'skewabs365': 6.284, 'skewrv180': -5.175, 'skewrv365': 1.58} ann. std {'skewabs180': 9.666, 'skewabs365': 8.884, 'skewrv180': -7.788, 'skewrv365': 6.61} ann. SR {'skewabs180': 0.09, 'skewabs365': 0.71, 'skewrv180': -0.66, 'skewrv365': 0.24}



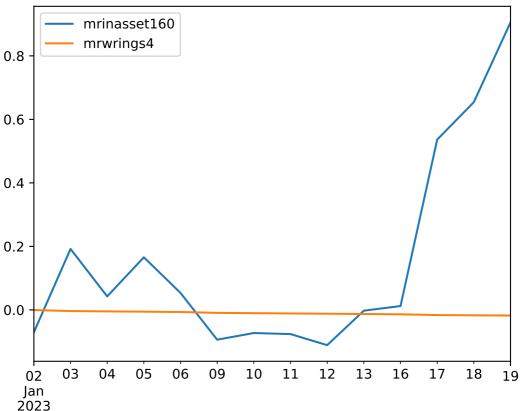
Total Trading Rule P&L for period '10Y'
ann. mean {'skewabs180': 4.807, 'skewabs365': 6.345, 'skewrv180': 3.653, 'skewrv365': 3.436}
ann. std {'skewabs180': 8.06, 'skewabs365': 8.01, 'skewrv180': 6.579, 'skewrv365': 6.178}
ann. SR {'skewabs180': 0.6, 'skewabs365': 0.79, 'skewrv180': 0.56, 'skewry365': 0.56}



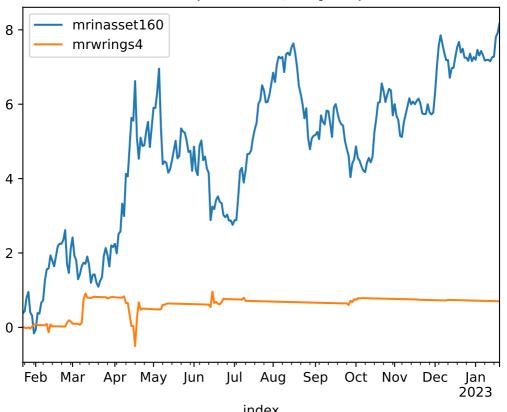
Total Trading Rule P&L for period '99Y'
ann. mean {'skewabs180': 4.108, 'skewabs365': 4.411, 'skewrv180': 4.143, 'skewrv365': 2.173}
ann. std {'skewabs180': 10.792, 'skewabs365': 10.299, 'skewrv180': 9.306, 'skewrv365': 8.6}
ann. SR {'skewabs180': 0.38, 'skewabs365': 0.43, 'skewrv180': 0.45, 'skewrv365': 0.25}



Total Trading Rule P&L for period 'YTD' ann. mean { 'mrinasset160': 16.553, 'mrwrings4': -0.323} ann. std { 'mrinasset160': 2.985, 'mrwrings4': 0.014} ann. SR { 'mrinasset160': 5.55, 'mrwrings4': -23.08}



Total Trading Rule P&L for period '1Y' ann. mean {'mrinasset160': 8.046, 'mrwrings4': 0.691} ann. std {'mrinasset160': 5.96, 'mrwrings4': 1.481} ann. SR {'mrinasset160': 1.35, 'mrwrings4': 0.47}



Total Trading Rule P&L for period '3Y' ann. mean {'mrinasset160': 5.136, 'mrwrings4': 0.157} ann. std {'mrinasset160': 6.881, 'mrwrings4': 1.535} ann. SR {'mrinasset160': 0.75, 'mrwrings4': 0.1}



Total Trading Rule P&L for period '10Y' ann. mean {'mrinasset160': -0.323, 'mrwrings4': 0.027} ann. std {'mrinasset160': 6.599, 'mrwrings4': 0.897} ann. SR {'mrinasset160': -0.05, 'mrwrings4': 0.03}



Total Trading Rule P&L for period '99Y' ann. mean {"mrinasset160': -3.334, 'mrwrings4': -1.173} ann. std {"mrinasset160': 10.915, 'mrwrings4': 2.629} ann. SR {"mrinasset160': -0.31, 'mrwrings4': -0.45}

