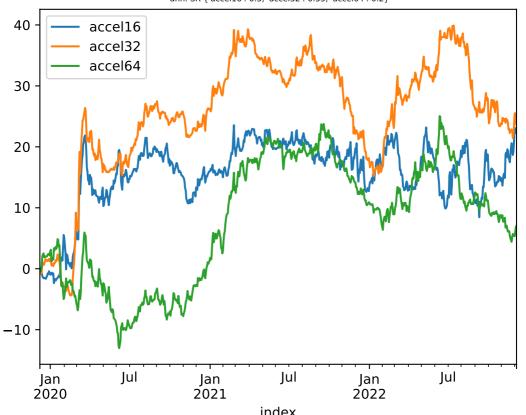
Total Trading Rule P&L for period 'YTD' ann. mean { icacel16:: 10.72, 'accel32': 5.705, 'accel64': -4.037} ann. std { 'accel16: 16.348, 'accel32': 14.436, 'accel64': 11.924} ann. SR { 'accel16': 0.66, 'accel32': 0.4, 'accel64': -0.34}



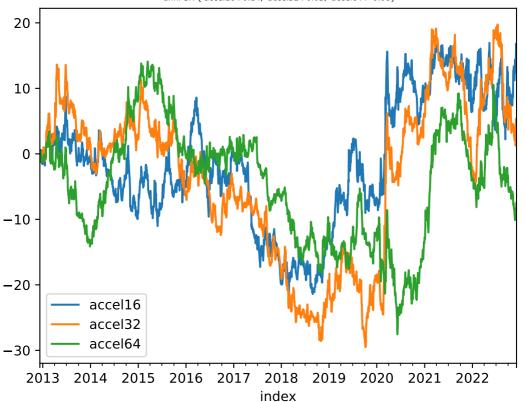
Total Trading Rule P&L for period '1Y' ann. mean {'accel16': 8.461, 'accel32': 2.276, 'accel64': -5.136} ann. std {'accel6': 16.522. 'accel32': 14.277. 'accel64': 11.664}



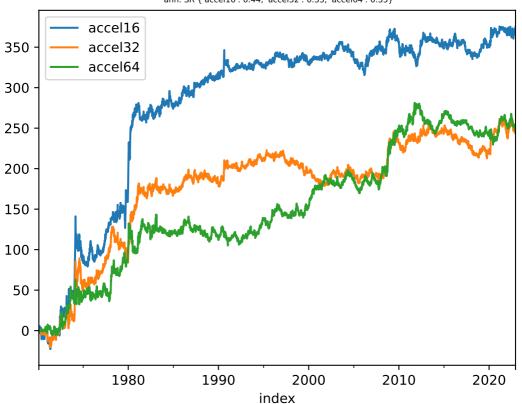
Total Trading Rule P&L for period '3Y' ann. mean {'accel16': 7.483, 'accel32': 7.704, 'accel64': 2.318} ann. std {'accel16': 14.825, 'accel32': 14.083, 'accel64': 11.768} ann. SR {'accel16': 0.5, 'accel32': 0.55, 'accel64': 0.2}



Total Trading Rule P&L for period '10Y'
ann. mean {'iaccel16': 1.632, 'accel32': 0.331, 'accel64': -0.731}
ann. std {'accel16': 11.893, 'accel32': 11.126, 'accel64': 9.572}
ann. SR {'accel16': 0.14, 'accel32': 0.03, 'accel64': -0.08}

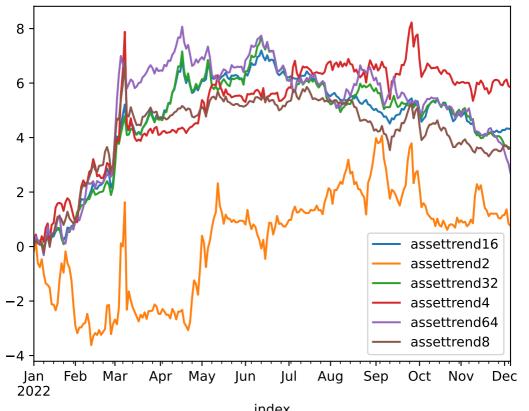


Total Trading Rule P&L for period '99Y' ann. mean {'accel16': 6.962, 'accel32': 4.561, 'accel64': 4.638} ann. std {'accel16': 15.732, 'accel32': 13.796, 'accel64': 13.334} ann. SR {'accel16': 0.44, 'accel32': 0.33, 'accel64': 0.35}



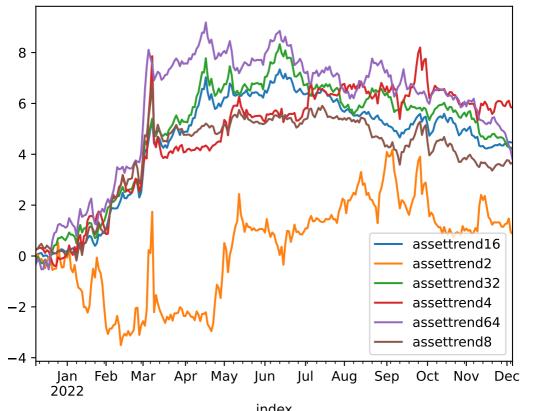
Total Trading Rule P&L for period 'YTD'

ann. mean { 'assettrend16': 4.563, 'assettrend2': 0.801, 'assettrend32': 3.791, 'assettrend4': 6.181, 'assettrend64': 2.851, 'assettrend8': 3.835} ann. std { 'assettrend16': 3.113, 'assettrend2': 7.92, 'assettrend32': 3.442, 'assettrend4': 5.914, 'assettrend64': 4.093, 'assettrend8': 3.868} ann. SR { 'assettrend16': 1.47, 'assettrend2': 0.1, 'assettrend32': 1.1, 'assettrend4': 1.05, 'assettrend64': 0.7, 'assettrend8': 0.99}



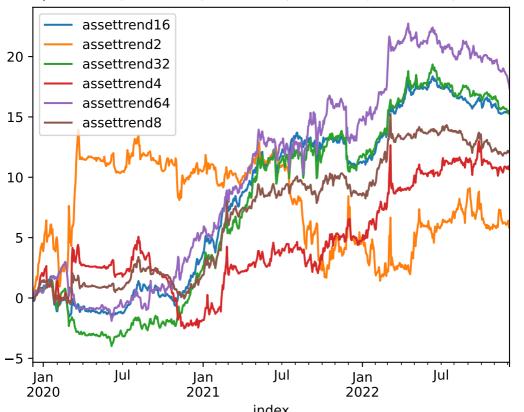
Total Trading Rule P&L for period '1Y'

ann. mean { 'assettrend16': 4.409, 'assettrend2': 0.86, 'assettrend32': 4.151, 'assettrend4': 5.752, 'assettrend64': 3.764, 'assettrend8': 3.632} ann. std { 'assettrend16': 3.021, 'assettrend2': 7.804, 'assettrend32': 3.405, 'assettrend4': 5.746, 'assettrend64': 4.112, 'assettrend8': 3.761} ann. SR { 'assettrend16': 1.46, 'assettrend2': 0.11, 'assettrend32': 1.22, 'assettrend4': 1.0, 'assettrend64': 0.92, 'assettrend8': 0.97}



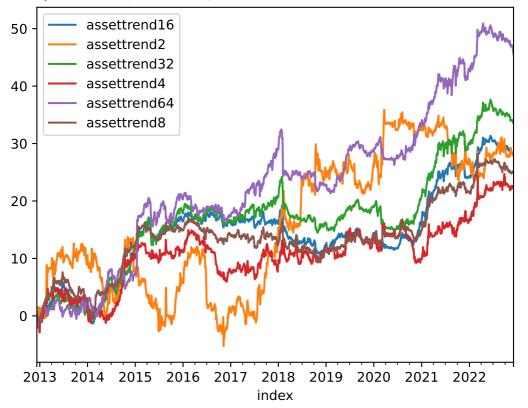
Total Trading Rule P&L for period '3Y'

ann. mean { 'assettrend16': 5.069, 'assettrend2': 1.896, 'assettrend32': 4.983, 'assettrend4': 3.476, 'assettrend64': 5.685, 'assettrend8': 3.961} ann. 5R ('assettrend16': 3.613, 'assettrend2': 7.891, 'assettrend32': 4.429, 'assettrend4': 5.456, 'assettrend64': 5.131, 'assettrend8': 3.758} ann. 5R ('assettrend16': 1.4, 'assettrend2': 0.24, 'assettrend32': 1.13, 'assettrend4': 0.64, 'assettrend64': 1.11, 'assettrend8': 1.05}



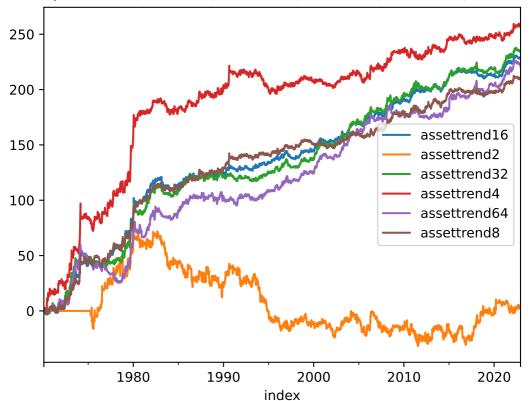
Total Trading Rule P&L for period '10Y'

ann. mean {'assettrend16': 2.797, 'assettrend2': 2.725, 'assettrend32': 3.293, 'assettrend4': 2.193, 'assettrend64': 4.471, 'assettrend8': 2.462} ann. std {'assettrend16': 3.281, 'assettrend2': 8.457, 'assettrend32': 3.761, 'assettrend4': 5.041, 'assettrend64': 5.312, 'assettrend8': 3.593} ann. SR {'assettrend16': 0.85, 'assettrend2': 0.32, 'assettrend2': 0.88, 'assettrend4': 0.44, 'assettrend64': 0.84, 'assettrend8': 0.69}



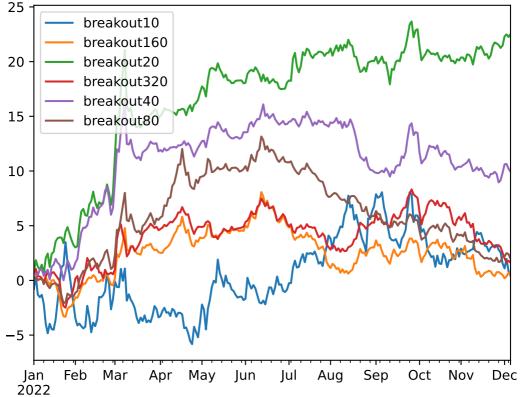
Total Trading Rule P&L for period '99Y'

ann. mean {'assettrend16': 4.233, 'assettrend2': 0.041, 'assettrend32': 4.341, 'assettrend4': 4.779, 'assettrend64': 4.102, 'assettrend8': 3.889} ann. std {'assettrend16': 4.664, 'assettrend2': 10.056, 'assettrend32': 4.899, 'assettrend4': 7.354, 'assettrend64': 5.474, 'assettrend8': 5.039} ann. SR {'assettrend16': 0.91, 'assettrend2': 0.0, 'assettrend32': 0.89, 'assettrend4': 0.65, 'assettrend64': 0.77}



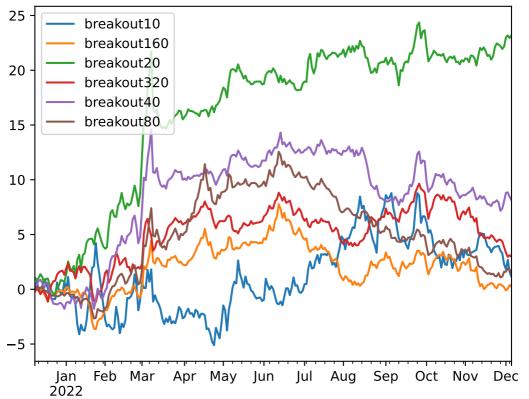
Total Trading Rule P&L for period 'YTD'

ann. mean {'breakout10': 0.437, 'breakout160': 0.562, 'breakout20': 23.812, 'breakout320': 1.723, 'breakout40': 10.507, 'breakout80': 2.104} ann. std {'breakout10': 14.016, 'breakout160': 7.302, 'breakout20': 12.322, 'breakout320': 7.625, 'breakout40': 9.808, 'breakout80': 8.026} ann. SR {'breakout10': 0.03, 'breakout160': 0.08, 'breakout20': 1.93, 'breakout320': 0.23, 'breakout40': 1.07, 'breakout80': 0.26}



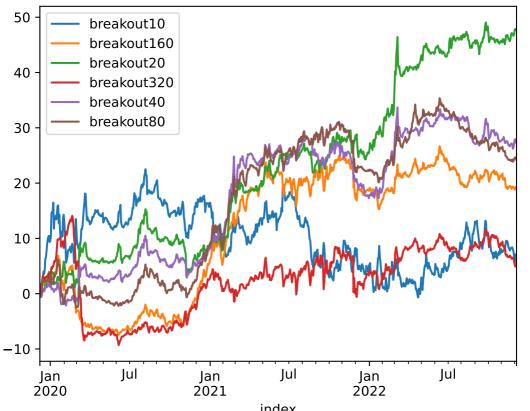
Total Trading Rule P&L for period '1Y'

ann. mean {'breakout10': 1.124, 'breakout160': 0.218, 'breakout20': 2.933, 'breakout320': 2.915, 'breakout40': 8.043, 'breakout80': 1.376} ann. std {'breakout10': 13.788, 'breakout160': 7.133, 'breakout20': 12.05, 'breakout320': 7.561, 'breakout40': 9.611, 'breakout80': 7.774} ann. SR {'breakout10': 0.08, 'breakout160': 0.03, 'breakout20': 1.9, 'breakout320': 0.39, 'breakout40': 0.84, 'breakout80': 0.18}



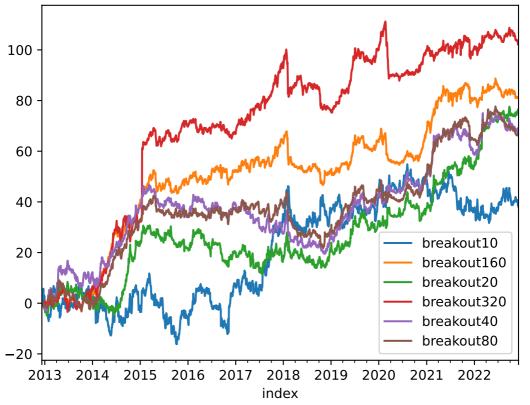
Total Trading Rule P&L for period '3Y'

ann. mean {'breakout10': 1.819, 'breakout160': 6.263, 'breakout20': 1.5.678, 'breakout320': 1.613, 'breakout40': 8.903, 'breakout80': 7.916} ann. std {'breakout10': 15.107, 'breakout160': 9.787, 'breakout20': 11.501, 'breakout320': 0.15, 'breakout40': 9.955, 'breakout80': 9.636} ann. SR {'breakout10': 0.12, 'breakout160': 0.64, 'breakout20': 1.36, 'breakout320': 0.15, 'breakout40': 0.89, 'breakout40': 0.82}



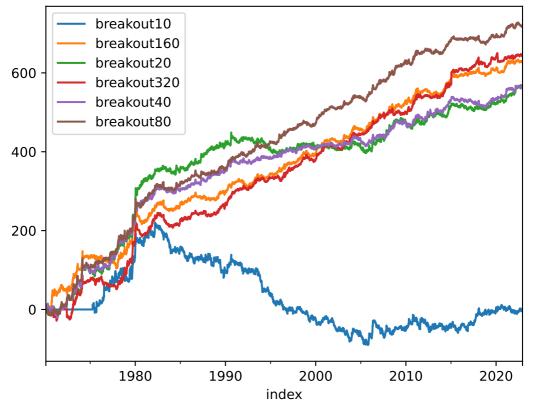
Total Trading Rule P&L for period '10Y'

ann. mean {'breakout10': 3.721, 'breakout160': 7.971, 'breakout20': 7.506, 'breakout320': 10.022, 'breakout40': 6.727, 'breakout80': 6.531} ann. std {'breakout10': 15.773, 'breakout160': 9.143, 'breakout20': 11.21, 'breakout320': 13.348, 'breakout40': 9.839, 'breakout80': 9.017} ann. SR {'breakout10': 0.24, 'breakout160': 0.87, 'breakout20': 0.67, 'breakout320': 0.75, 'breakout40': 0.68, 'breakout80': 0.72}



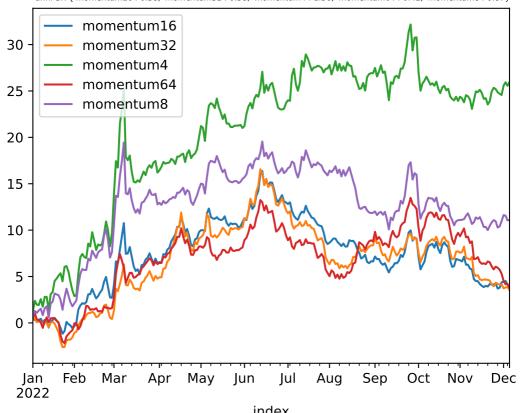
Total Trading Rule P&L for period '99Y'

ann. mean {'breakout10': -0.094, 'breakout160': 11.635, 'breakout20': 10.549, 'breakout320': 11.906, 'breakout40': 10.423, 'breakout80': 13.309} ann. std {'breakout10': 20.849, 'breakout160': 12.506, 'breakout20': 16.112, 'breakout320': 13.059, 'breakout40': 13.242, 'breakout80': 12.764} ann. SR {'breakout10': -0.0, 'breakout160': 0.93, 'breakout20': 0.65, 'breakout320': 0.91, 'breakout40': 0.79, 'breakout80': 1.04}



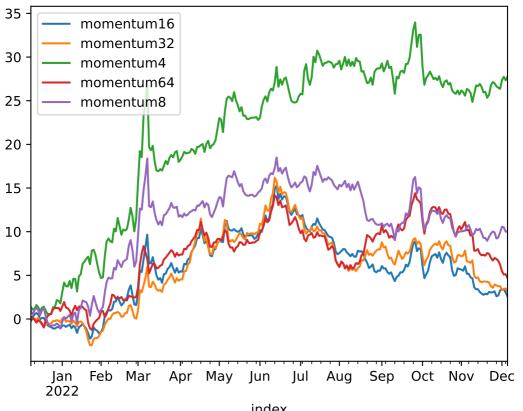
Total Trading Rule P&L for period 'YTD'

ann. mean {'momentum16': 3.896, 'momentum32': 3.739, 'momentum4': 27.466, 'momentum64': 3.988, 'momentum8': 11.752} ann. std {'momentum16': 10.288, 'momentum32': 9.394, 'momentum4': 17.635, 'momentum64': 9.595, 'momentum8': 13.471} ann. SR ('momentum16': 0.38, 'momentum32': 0.38, 'momentum4': 1.56, 'momentum64': 0.42, 'momentum8': 0.87}



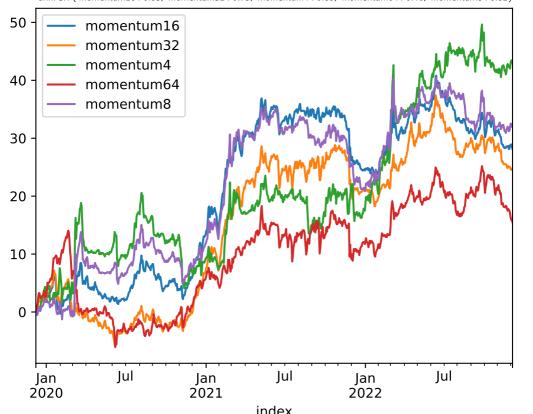
Total Trading Rule P&L for period '1Y'

ann. mean {'momentum16': 2.56, 'momentum32': 3.117, 'momentum4': 27.436, 'momentum64': 4.641, 'momentum8': 9.936} ann. std {'momentum16': 9.996, 'momentum32': 9.648, 'momentum4': 17.165, 'momentum64': 9.383, 'momentum8': 13.175} ann. SR {'momentum16': 0.26, 'momentum32': 0.32, 'momentum4': 1.6, 'momentum64': 0.49, 'momentum8': 0.75}



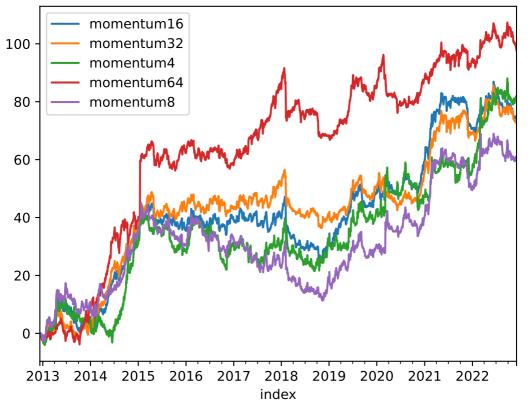
Total Trading Rule P&L for period '3Y'

ann. mean {'momentum16': 9.201, 'momentum32': 7.989, 'momentum4': 14.22, 'momentum64': 5.071, 'momentum8': 10.482} ann. std {'momentum16': 11.034, 'momentum32': 10.901, 'momentum4': 16.046, 'momentum64': 10.997, 'momentum8': 12.732} ann. SR {'momentum16': 0.83, 'momentum32': 0.73, 'momentum4': 0.89, 'momentum64': 0.46, 'momentum8': 0.82}



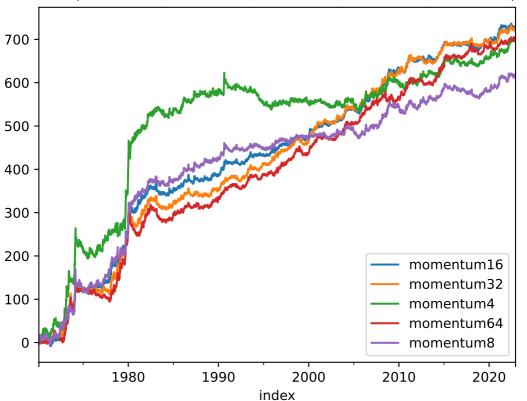
Total Trading Rule P&L for period '10Y'

ann. mean {'momentum16': 7.29, 'momentum32': 7.13, 'momentum4': 8.042, 'momentum64': 9.59, 'momentum8': 5.941} ann. std {'momentum16': 9.954, 'momentum32': 9.509, 'momentum4': 13.68, 'momentum64': 12.014, 'momentum8': 11.32} ann. SR {'momentum16': 0.73, 'momentum32': 0.75, 'momentum4': 0.59, 'momentum64': 0.8, 'momentum8': 0.52}



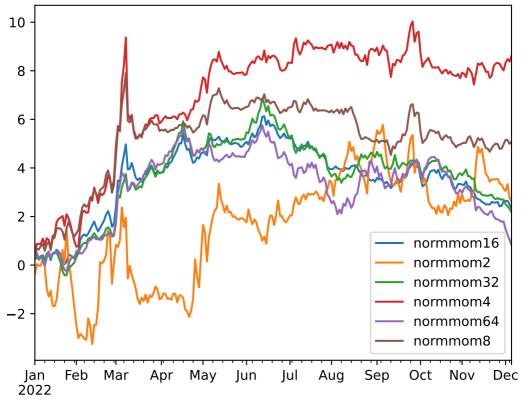
Total Trading Rule P&L for period '99Y'

ann. mean {'momentum16': 13.446, 'momentum32': 13.352, 'momentum4': 12.961, 'momentum64': 12.918, 'momentum8': 11.385} ann. std {'momentum16': 14.232, 'momentum32': 13.864, 'momentum4': 20.089, 'momentum64': 13.499, 'momentum8': 15.882} ann. SR {'momentum16': 0.94, 'momentum32': 0.96, 'momentum4': 0.65, 'momentum64': 0.96, 'momentum8': 0.72



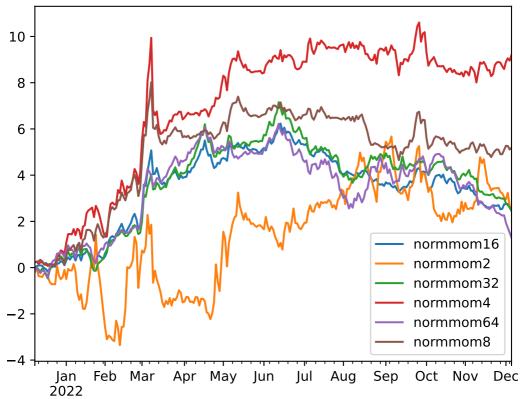
Total Trading Rule P&L for period 'YTD'

ann. mean {'normmom16': 2.486, 'normmom2': 2.768, 'normmom32': 2.306, 'normmom4': 9.124, 'normmom64': 0.88, 'normmom8': 5.372} ann. std {'normmom16': 3.194, 'normmom2': 8.263, 'normmom32': 3.265, 'normmom4': 6.093, 'normmom64': 3.521, 'normmom8': 4.349} ann. SR {'normmom16': 0.78, 'normmom2': 0.34, 'normmom32': 0.71, 'normmom4': 1.5, 'normmom64': 0.25, 'normmom8': 1.24}



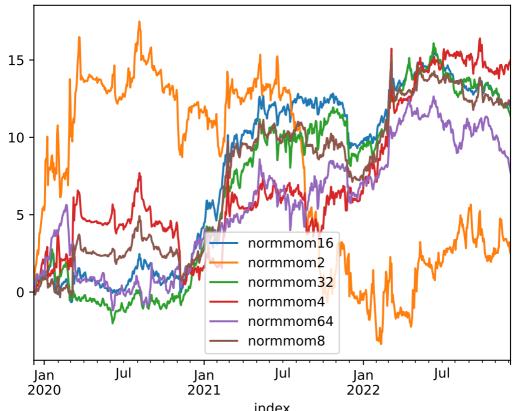
Total Trading Rule P&L for period '1Y'

ann. mean {'normmom16': 2.424, 'normmom2': 2.488, 'normmom32': 2.436, 'normmom4': 9.095, 'normmom64': 1.284, 'normmom8': 5.134} ann. std {'normmom16': 3.103, 'normmom2': 8.062, 'normmom32': 3.213, 'normmom4': 5.914, 'normmom64': 3.466, 'normmom8': 4.227} ann. SR {'normmom16': 0.78, 'normmom2': 0.31, 'normmom32': 0.76, 'normmom4': 1.54, 'normmom64': 0.37, 'normmom8': 1.21}



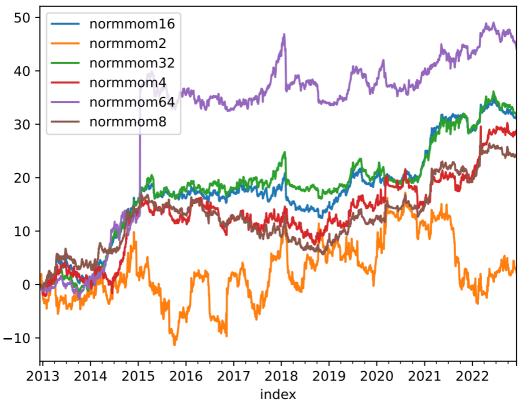
Total Trading Rule P&L for period '3Y'

ann. mean {'normmom16': 3.906, 'normmom2': 0.82, 'normmom32': 3.73, 'normmom4': 4.908, 'normmom64': 2.529, 'normmom8': 4.032} ann. std {'normmom16': 3.72, 'normmom2': 8.904, 'normmom32': 4.059, 'normmom4': 5.929, 'normmom64': 4.355, 'normmom8': 4.242} ann. SR {'normmom16': 1.05, 'normmom2': 0.09, 'normmom32': 0.92, 'normmom4': 0.83, 'normmom64': 0.58, 'normmom8': 0.95}



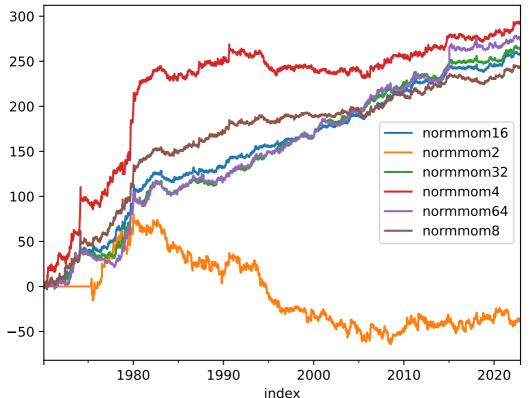
Total Trading Rule P&L for period '10Y'

ann. mean {'normmom16': 3.051, 'normmom2': 0.22, 'normmom32': 3.092, 'normmom4': 2.834, 'normmom64': 4.334, 'normmom8': 2.38} ann. std {'normmom16': 3.58, 'normmom2': 9.103, 'normmom32': 3.734, 'normmom4': 5.496, 'normmom64': 8.564, 'normmom8': 4.054} ann. SR {'normmom16': 0.85, 'normmom2': 0.02, 'normmom32': 0.83, 'normmom4': 0.52, 'normmom64': 0.51, 'normmom8': 0.59}

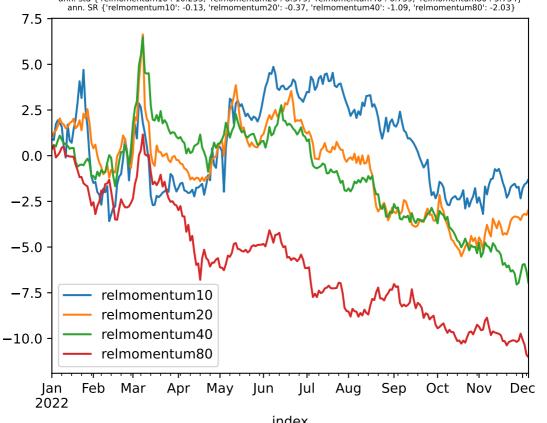


Total Trading Rule P&L for period '99Y'

ann. mean {'normmom16': 4.769, 'normmom2': -0.713, 'normmom32': 4.878, 'normmom4': 5.437, 'normmom64': 5.076, 'normmom8': 4.513} ann. std {'normmom16': 4.926, 'normmom2': 11.207, 'normmom32': 4.995, 'normmom4': 8.328, 'normmom64': 6.315, 'normmom8': 5.936} ann. SR {'normmom16': 0.97, 'normmom2': -0.06, 'normmom32': 0.98, 'normmom4': 0.65, 'normmom64': 0.8, 'normmom8': 0.76}

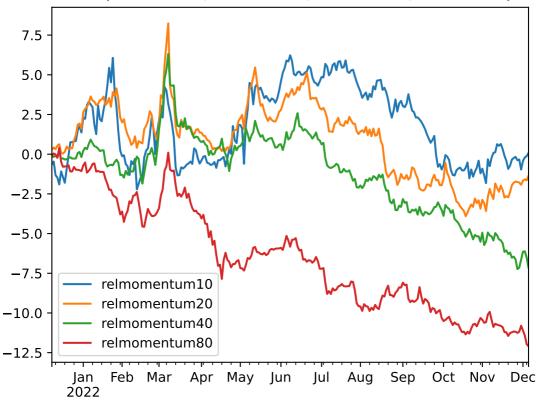


Total Trading Rule P&L for period 'YTD' ann. mean {'relmomentum10': -1.368, 'relmomentum20': -3.137, 'relmomentum40': -7.369, 'relmomentum80': -11.663} ann. std {'relmomentum10': 10.253, 'relmomentum20': 8.579, 'relmomentum40': 6.739, 'relmomentum80': 5.754}



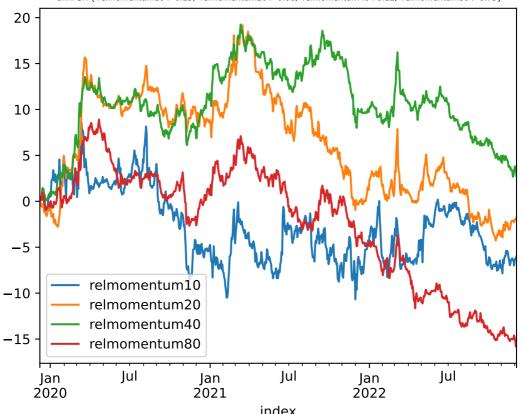
Total Trading Rule P&L for period '1Y'

ann. mean {'relmomentum10': 0.074, 'relmomentum20': -1.351, 'relmomentum40': -7.063, 'relmomentum80': -11.95} ann. std {'relmomentum10': 10.167, 'relmomentum20': 8.384, 'relmomentum40': 6.558, 'relmomentum80': 5.703} ann. SR {'relmomentum10': 0.01, 'relmomentum20': -0.16, 'relmomentum40': -1.08, 'relmomentum80': -2.1}



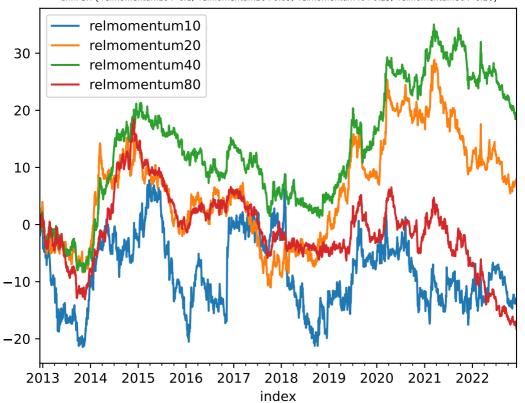
Total Trading Rule P&L for period '3Y'

ann. mean {'relmomentum10': -1.952, 'relmomentum20': -0.566, 'relmomentum40': 0.906, 'relmomentum80': -5.2} ann. std {'relmomentum10': 12.728, 'relmomentum20': 9.031, 'relmomentum40': 0.12, 'relmomentum80': 6.969} ann. SR {'relmomentum10': -0.15, 'relmomentum20': -0.06, 'relmomentum40': 0.12, 'relmomentum80': -0.75}



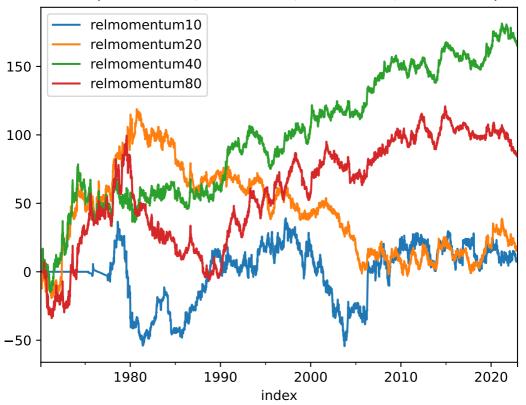
Total Trading Rule P&L for period '10Y'

ann. mean {'relmomentum10': -1.26, 'relmomentum20': 0.784, 'relmomentum40': 1.821, 'relmomentum80': -1.793} ann. std {'relmomentum10': 1.299, 'relmomentum40': 9.043, 'relmomentum40': 7.387, 'relmomentum80': 6.838} ann. SR {'relmomentum10': -0.1, 'relmomentum20': 0.09, 'relmomentum40': 0.25, 'relmomentum80': -0.26}

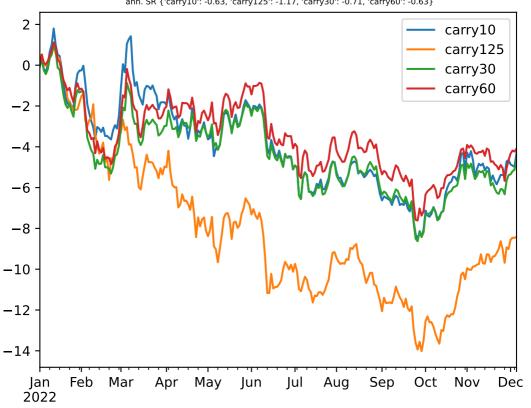


Total Trading Rule P&L for period '99Y'

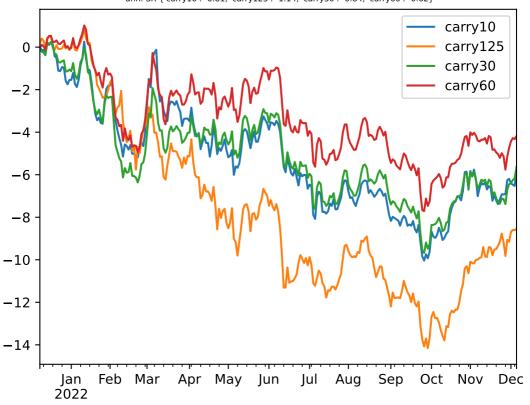
ann. mean {'relmomentum10': 0.169, 'relmomentum20': 0.333, 'relmomentum40': 3.062, 'relmomentum80': 1.564} ann. std {'relmomentum10': 13.331, 'relmomentum40': 10.802, 'relmomentum40': 1.068} ann. SR {'relmomentum10': 0.01, 'relmomentum40': 0.03, 'relmomentum40': 0.28, 'relmomentum80': 0.14}



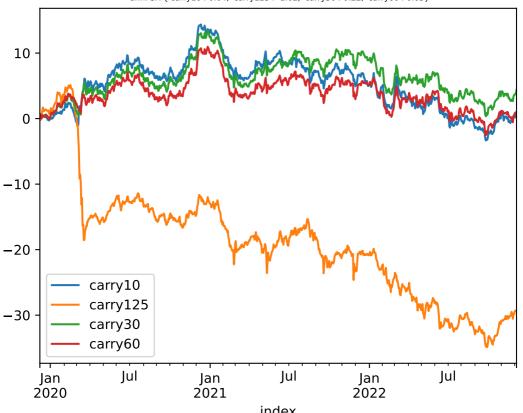
Total Trading Rule P&L for period 'YTD'
ann. mean {'carry10': -4.555, 'carry125': -8.894, 'carry30': -4.844, 'carry60': -4.328}
ann. std {'carry10': 7.262, 'carry125': 7.622, 'carry30': 6.814, 'carry60': 6.82}
ann. SR {'carry10': -0.63, 'carry125': -1.17, 'carry30': -0.71, 'carry60': -0.63}



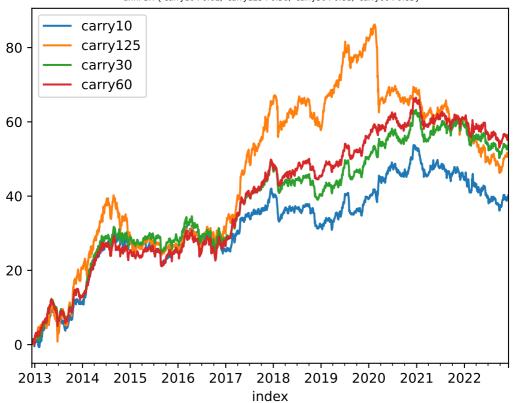
Total Trading Rule P&L for period '1Y'
ann. mean {'carry10': -5.782, 'carry125': -8.447, 'carry30': -5.566, 'carry60': -4.137}
ann. std {'carry10': 7.123, 'carry125': 7.429, 'carry30': 6.653, 'carry60': 6.633}
ann. SR {'carry10': -0.81, 'carry125': -1.14, 'carry30': -0.84, 'carry60': -0.62}



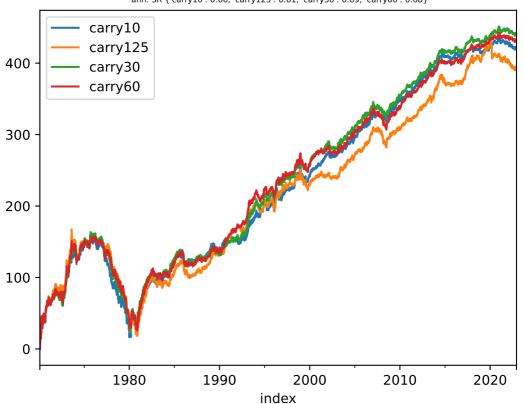
Total Trading Rule P&L for period '3Y' ann. mean {'carry10': 0.278, 'carry125': -9.583, 'carry30': 1.442, 'carry60': 0.333} ann. std {'carry10': 6.808, 'carry125': 9.397, 'carry30': 6.593, 'carry60': 6.534} ann. SR {'carry10': 0.04, 'carry125': -1.02, 'carry30': 0.22, 'carry60': 0.05}



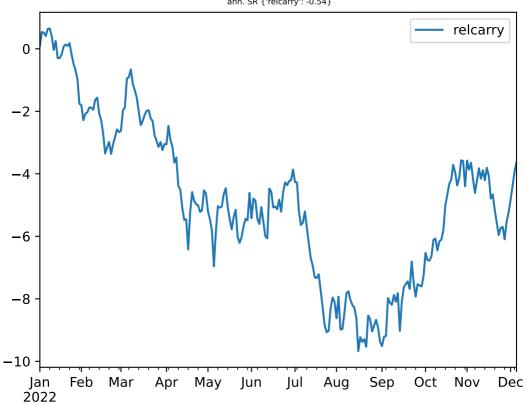
Total Trading Rule P&L for period '10Y' ann. mean {'carry10': 3.955, 'carry125': 5.09, 'carry30': 5.332, 'carry60': 5.556} ann. std {'carry10': 6.462, 'carry125': 9.128, 'carry30': 6.57, 'carry60': 6.535} ann. SR {'carry10': 0.61, 'carry125': 0.56, 'carry30': 0.81, 'carry60': 0.85}



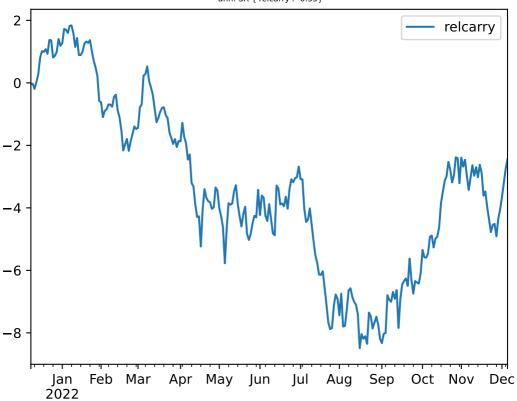
Total Trading Rule P&L for period '99Y'
ann. mean {'carry10': 7.853, 'carry125': 7.348, 'carry30': 8.215, 'carry60': 8.039}
ann. std {'carry10': 11.866, 'carry125': 12.105, 'carry30': 11.877, 'carry60': 11.827}
ann. SR {'carry10': 0.66, 'carry125': 0.61, 'carry30': 0.69, 'carry60': 0.68}



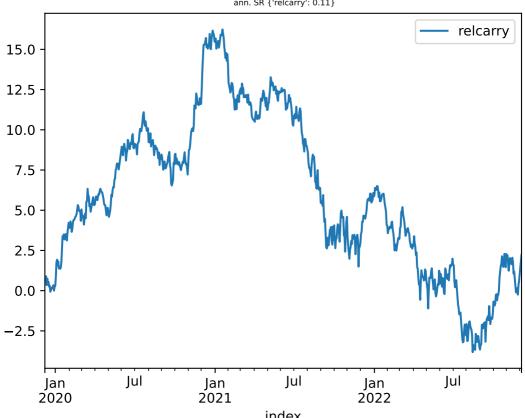
Total Trading Rule P&L for period 'YTD' ann. mean {'relcarry': -3.841} ann. std {'relcarry': 7.139} ann. SR {'relcarry': -0.54}



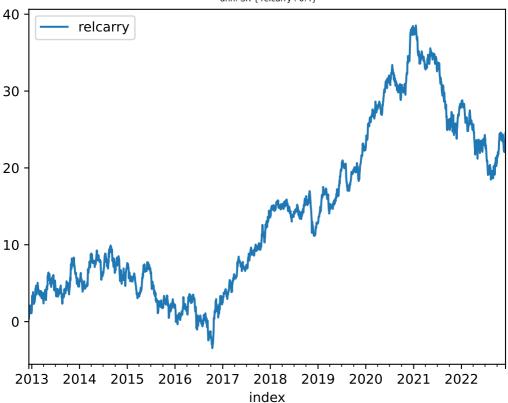
Total Trading Rule P&L for period '1Y' ann. mean {'relcarry': -2.417} ann. std {'relcarry': 6.989} ann. SR {'relcarry': -0.35}



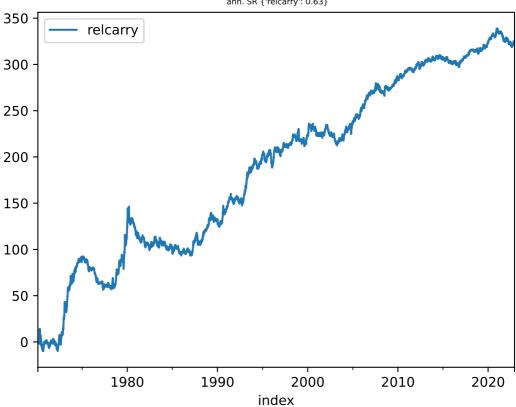
Total Trading Rule P&L for period '3Y' ann. mean {'relcarry': 0.727} ann. std {'relcarry': 6.815} ann. SR {'relcarry': 0.11}



Total Trading Rule P&L for period '10Y' ann. mean {'relcarry': 2.408} ann. std {'relcarry': 6.045} ann. SR {'relcarry': 0.4}



Total Trading Rule P&L for period '99Y' ann. mean {'relcarry': 6.033} ann. std {'relcarry': 9.561} ann. SR {'relcarry': 0.63}



Total Trading Rule P&L for period 'YTD'
n_mean {'skewahs180': 0.578, 'skewahs365': -4.57, 'skewry180': -5

ann. mean {'skewabs180': 0.578, 'skewabs365': -4.57, 'skewrv180': -5.343, 'skewrv365': 9.725} ann. std {'skewabs180': 10.046, 'skewabs365': 7.852, 'skewrv180': 9.421, 'skewrv365': 4.966} ann. SR {'skewabs180': 0.06, 'skewabs365': -0.58, 'skewrv180': -0.57, 'skewrv365': 1.96}

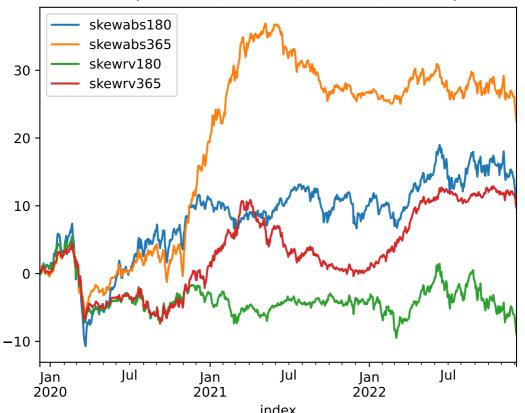


Total Trading Rule P&L for period '17' ann. mean {'skewabs180': 1.696, 'skewabs365': -3.949, 'skewrv180': -4.377, 'skewrv365': 9.647} ann. std {'skewabs180': 9.843, 'skewabs365': 7.638, 'skewrv180': 9.166, 'skewrv365': 4.88}

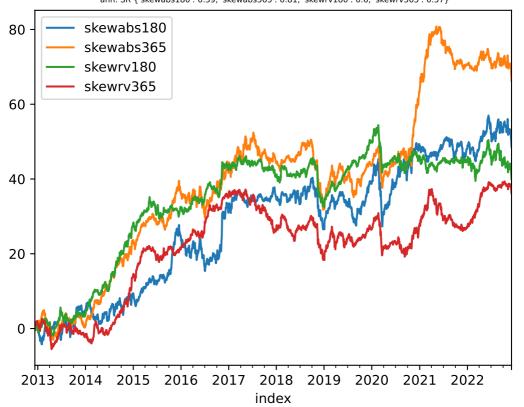


Total Trading Rule P&L for period '3Y'

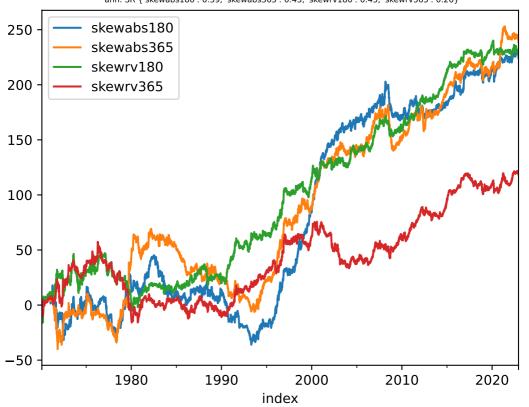
ann. mean {'skewabs180': 3.472, 'skewabs365': 7.322, 'skewrv180': -2.939, 'skewrv365': 3.179} ann. std {'skewabs180': 9.59, 'skewabs365': 8.728, 'skewrv180': 7.776, 'skewrv365': 6.582} ann. SR {'skewabs180': 0.36, 'skewabs365': 0.84, 'skewrv180': -0.38, 'skewrv365': 0.48}



Total Trading Rule P&L for period '10Y' ann. mean {'skewabs180': 4.773, 'skewabs365': 6.507, 'skewrv180': 6.591, 'skewrv365': 3.55} ann. std {'skewabs180': 8.071, 'skewabs365': 7.997, 'skewrv180': 6.591, 'skewrv365': 6.182} ann. SR {'skewabs180': 0.59, 'skewabs365': 0.81, 'skewrv180': 0.6, 'skewrv365': 0.57}

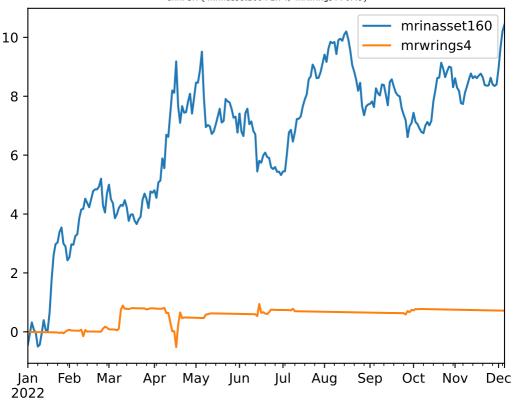


Total Trading Rule P&L for period '99Y' ann. mean {'skewabs180': 4.161, 'skewabs365': 4.427, 'skewrv180': 4.193, 'skewrv365': 2.2} ann. std {'skewabs180': 10.795, 'skewabs365': 10.3, 'skewrv180': 9.31, 'skewrv365': 8.606} ann. SR {'skewabs180': 0.39, 'skewabs365': 0.43, 'skewrv180': 0.45, 'skewrv365': 0.26}

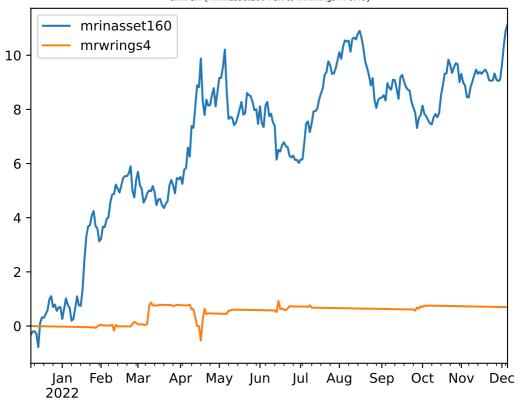


Total Trading Rule P&L for period 'YTD' ann. mean {'mrinasset160': 11.042, 'mrwrings4': 0.759}

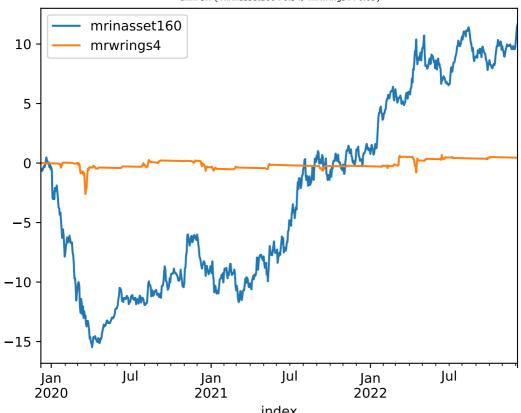
ann. std {'mrinasset160': 11.042, mwrings4': 0.739 ann. std {'mrinasset160': 6.339, 'mrwrings4': 1.535} ann. SR {'mrinasset160': 1.74, 'mrwrings4': 0.49}



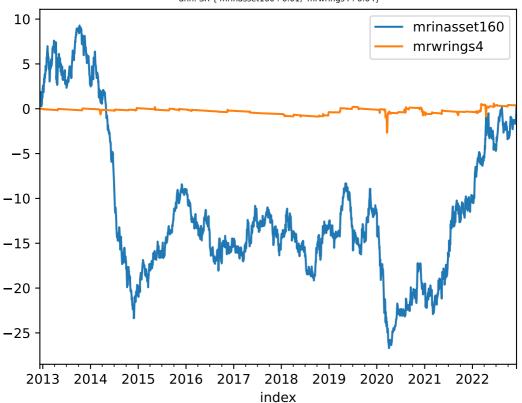
Total Trading Rule P&L for period '1Y' ann. mean {'mrinasset160': 11.009, 'mrwrings4': 0.688} ann. std {'mrinasset160': 6.257, 'mrwrings4': 1.484} ann. SR {'mrinasset160': 1.76, 'mrwrings4': 0.46}



Total Trading Rule P&L for period '3Y' ann. mean {'mrinasset160': 3.812, 'mrwrings4': 0.146} ann. std {'mrinasset160': 7.084, 'mrwrings4': 1.536} ann. SR {'mrinasset160': 0.54, 'mrwrings4': 0.09}



Total Trading Rule P&L for period '10Y' ann. mean {'mrinasset160': 0.041, 'mrwrings4': 0.036} ann. std {'mrinasset160': 6.657, 'mrwrings4': 0.897} ann. SR {'mrinasset160': 0.01, 'mrwrings4': 0.04}



Total Trading Rule P&L for period '99Y' ann. mean {"mrinasset160': -3.346, 'mrwrings4': -1.174} ann. std {'mrinasset160': 10.927, 'mrwrings4': 2.632} ann. SR {'mrinasset160': -0.31, 'mrwrings4': -0.45}

