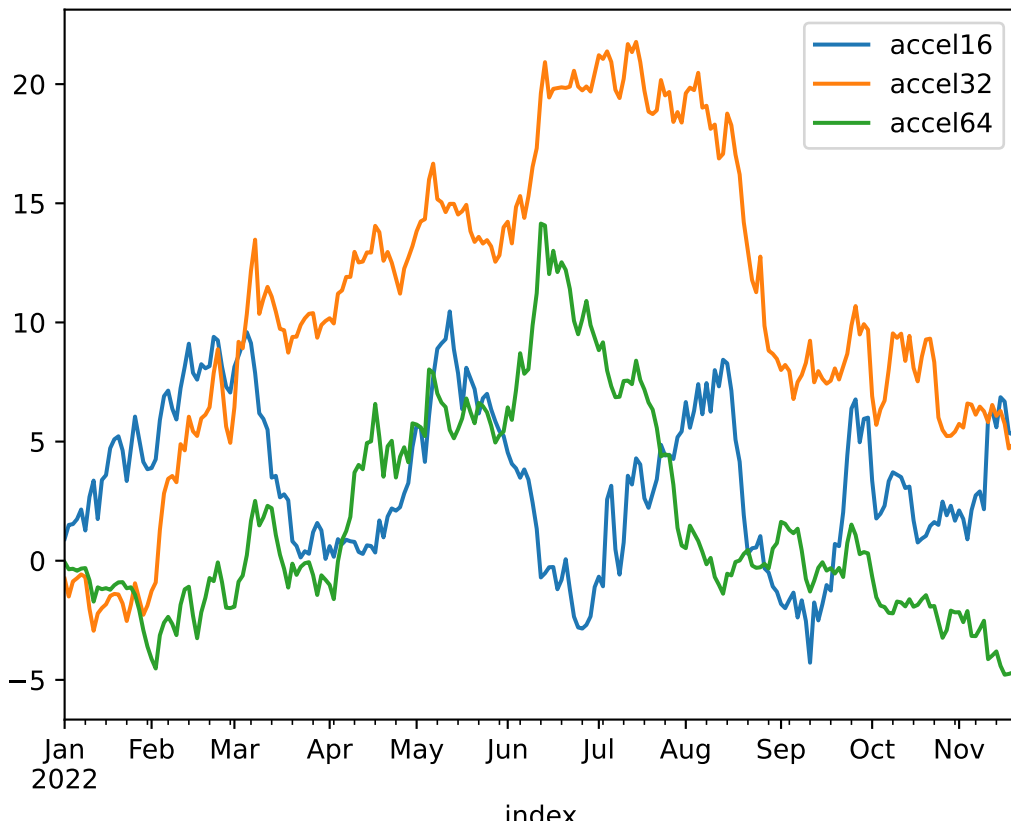
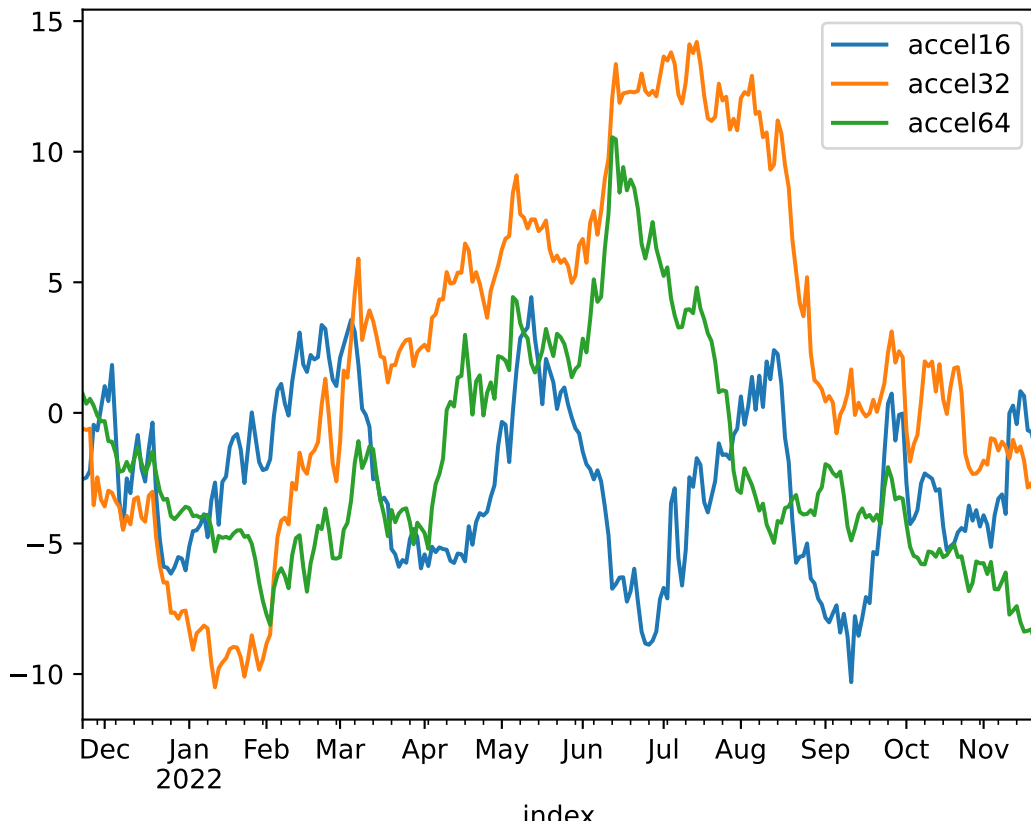


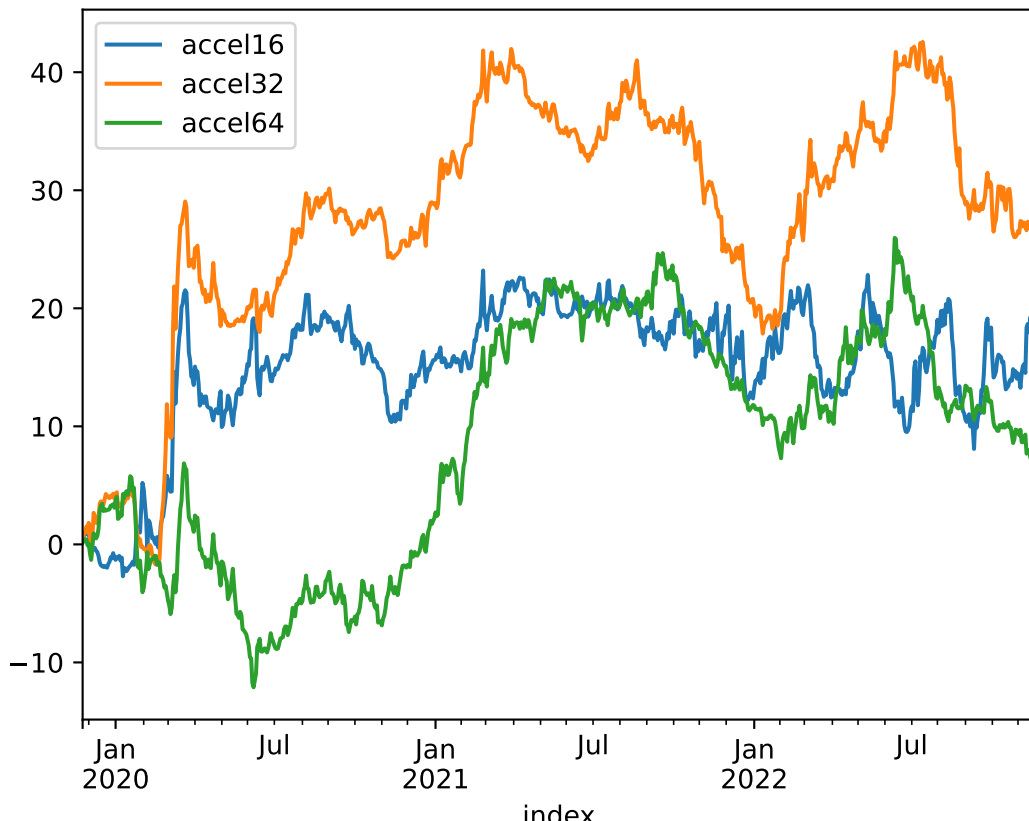
Total Trading Rule P&L for period 'YTD'  
ann. mean {'accel16': 5.144, 'accel32': 4.635, 'accel64': -5.887}  
ann. std {'accel16': 16.282, 'accel32': 14.387, 'accel64': 12.072}  
ann. SR {'accel16': 0.32, 'accel32': 0.32, 'accel64': -0.49}



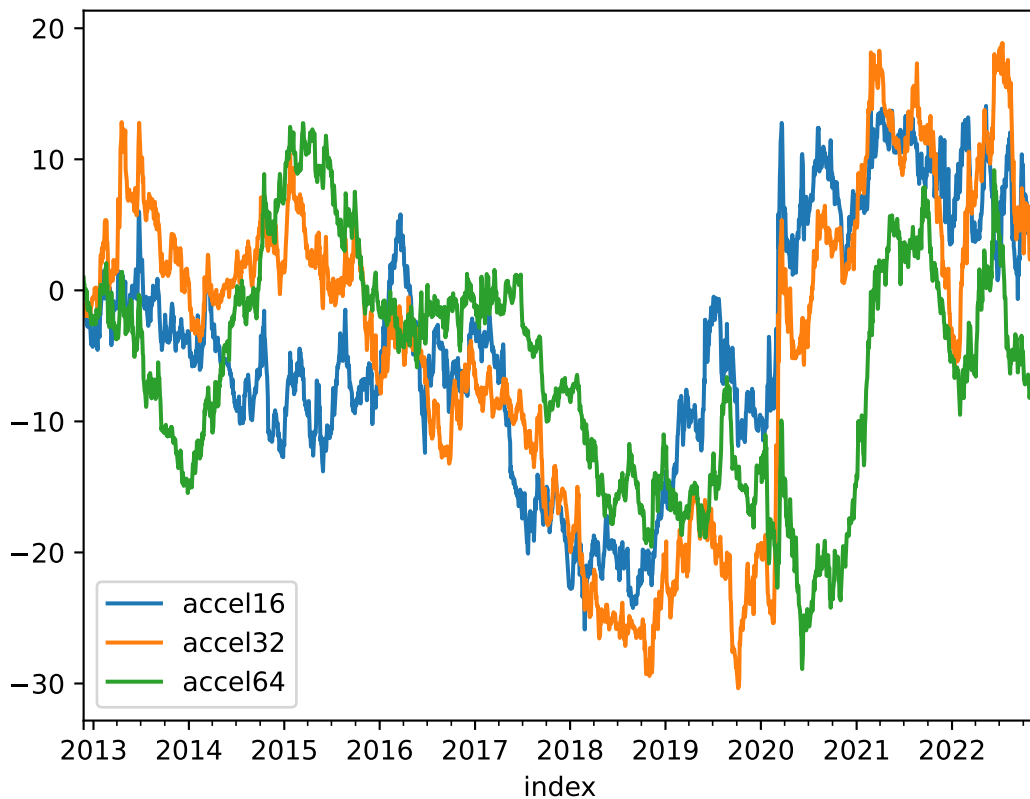
Total Trading Rule P&L for period '1Y'  
ann. mean {'accel16': -1.368, 'accel32': -3.334, 'accel64': -8.769}  
ann. std {'accel16': 16.925, 'accel32': 14.315, 'accel64': 11.608}  
ann. SR {'accel16': -0.08, 'accel32': -0.23, 'accel64': -0.76}



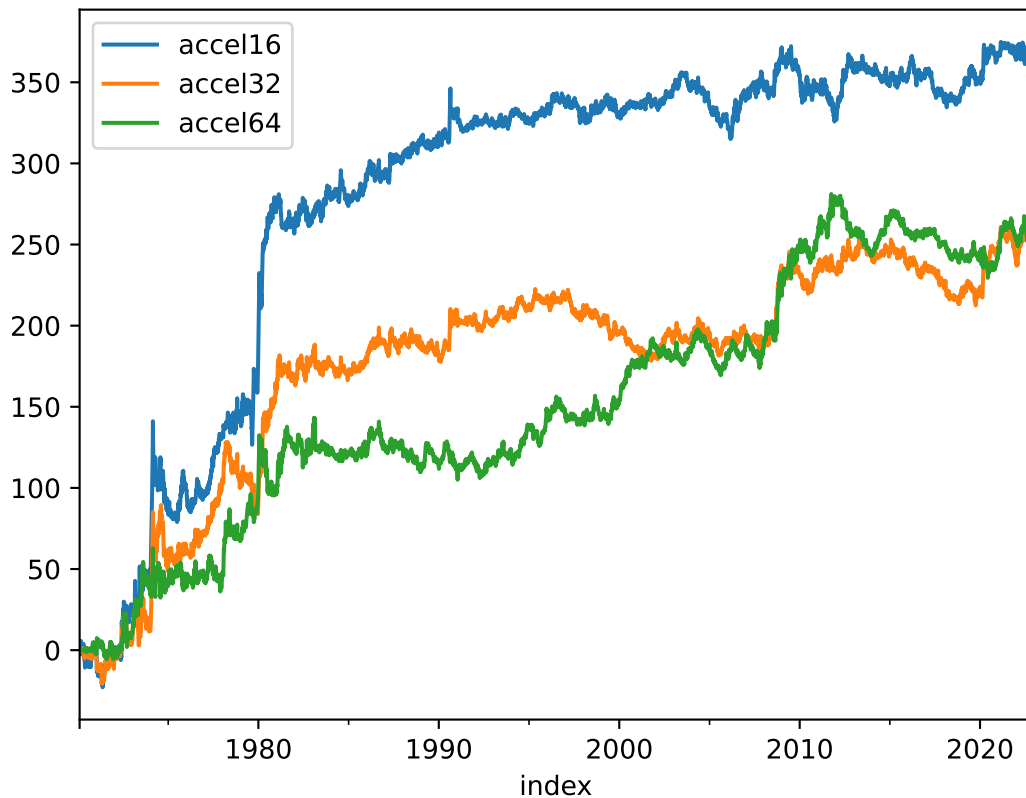
Total Trading Rule P&L for period '3Y'  
ann. mean {'accel16': 5.574, 'accel32': 8.187, 'accel64': 2.133}  
ann. std {'accel16': 14.714, 'accel32': 14.12, 'accel64': 11.79}  
ann. SR {'accel16': 0.38, 'accel32': 0.58, 'accel64': 0.18}



Total Trading Rule P&L for period '10Y'  
ann. mean {'accel16': 0.811, 'accel32': 0.127, 'accel64': -1.01}  
ann. std {'accel16': 11.846, 'accel32': 11.096, 'accel64': 9.576}  
ann. SR {'accel16': 0.07, 'accel32': 0.01, 'accel64': -0.11}



Total Trading Rule P&L for period '99Y'  
ann. mean {'accel16': 6.852, 'accel32': 4.536, 'accel64': 4.61}  
ann. std {'accel16': 15.73, 'accel32': 13.795, 'accel64': 13.338}  
ann. SR {'accel16': 0.44, 'accel32': 0.33, 'accel64': 0.35}

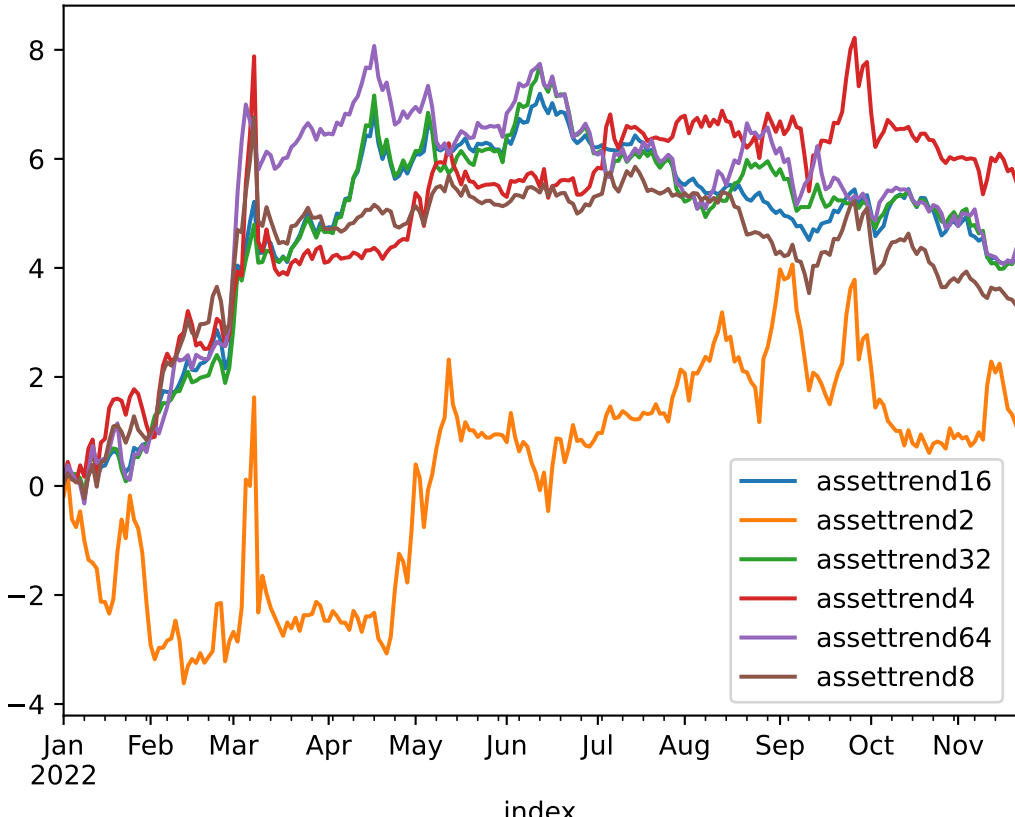


Total Trading Rule P&L for period 'YTD'

ann. mean {'assettrend16': 4.602, 'assettrend2': 1.232, 'assettrend32': 4.635, 'assettrend4': 6.202, 'assettrend64': 4.808, 'assettrend8': 3.674}

ann. std {'assettrend16': 3.183, 'assettrend2': 8.081, 'assettrend32': 3.509, 'assettrend4': 6.033, 'assettrend64': 4.137, 'assettrend8': 3.95}

ann. SR {'assettrend16': 1.45, 'assettrend2': 0.15, 'assettrend32': 1.32, 'assettrend4': 1.03, 'assettrend64': 1.16, 'assettrend8': 0.93}

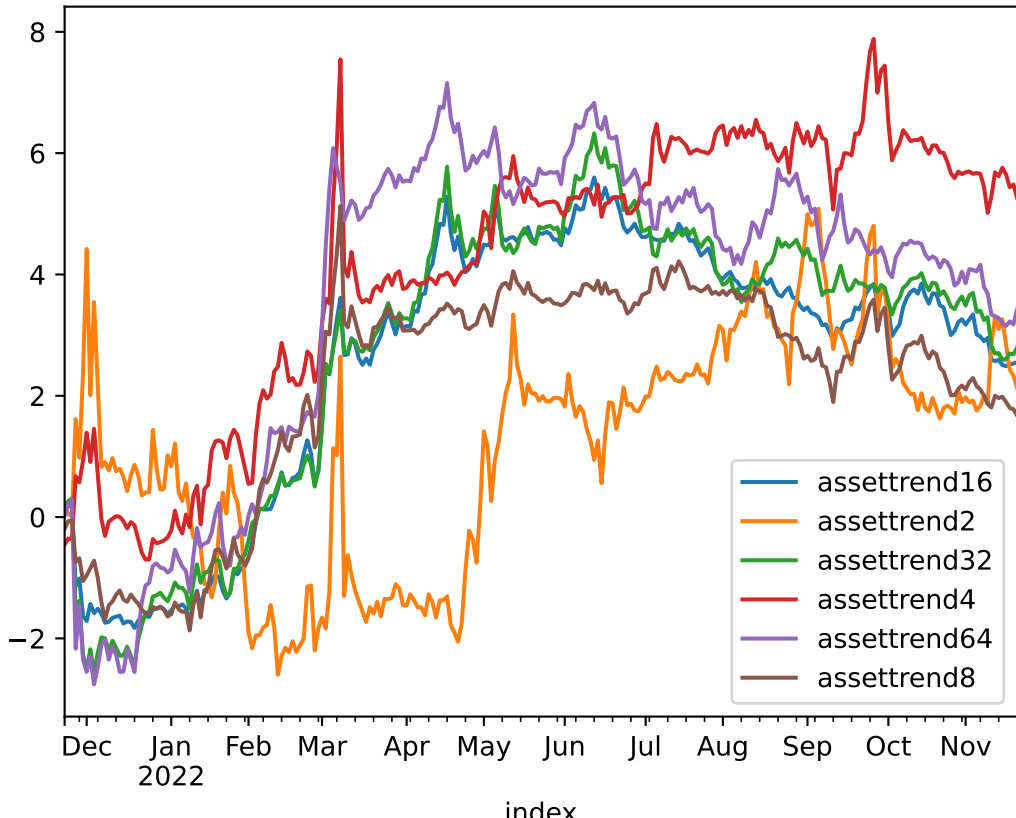


# Total Trading Rule P&L for period '1Y'

ann. mean {'assettrend16': 2.517, 'assettrend2': 2.099, 'assettrend32': 2.753, 'assettrend4': 5.18, 'assettrend64': 3.371, 'assettrend8': 1.649}

ann. std {'assettrend16': 3.385, 'assettrend2': 8.999, 'assettrend32': 4.033, 'assettrend4': 6.002, 'assettrend64': 4.933, 'assettrend8': 3.883}

ann. SR {'assettrend16': 0.74, 'assettrend2': 0.23, 'assettrend32': 0.68, 'assettrend4': 0.86, 'assettrend64': 0.68, 'assettrend8': 0.42}

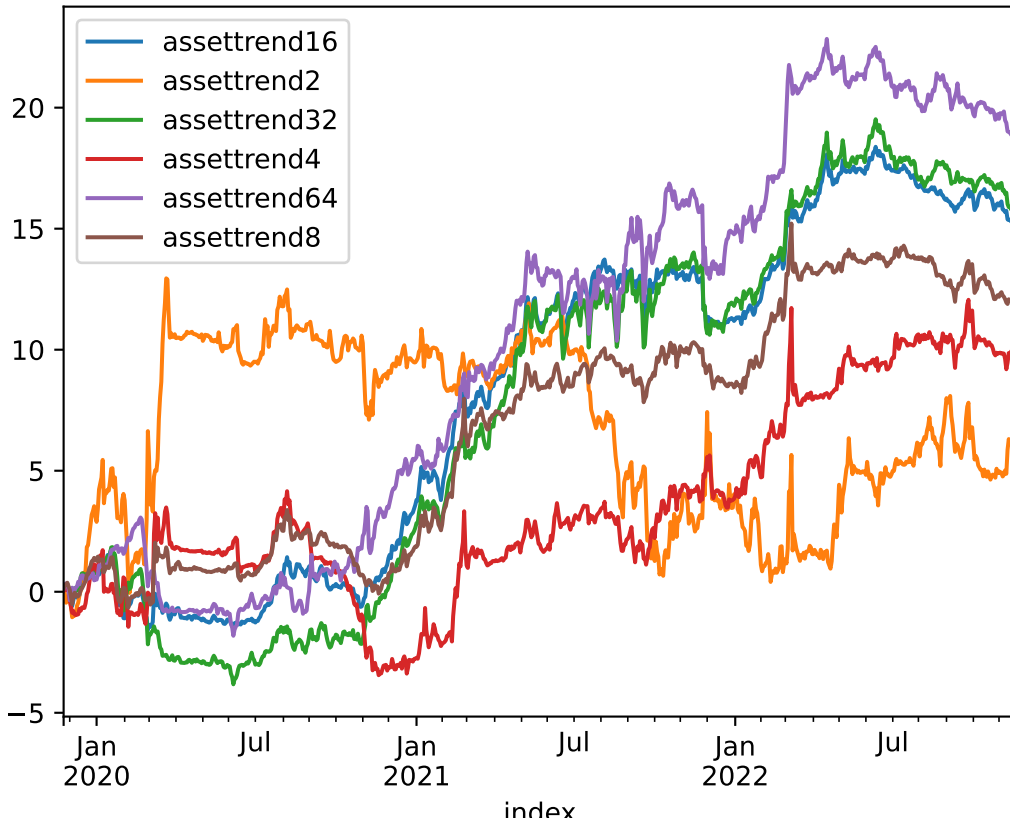


Total Trading Rule P&L for period '3Y'

ann. mean {'assettrend16': 5.028, 'assettrend2': 1.684, 'assettrend32': 5.242, 'assettrend4': 3.094, 'assettrend64': 6.263, 'assettrend8': 3.854}

ann. std {'assettrend16': 3.632, 'assettrend2': 7.899, 'assettrend32': 4.439, 'assettrend4': 5.464, 'assettrend64': 5.137, 'assettrend8': 3.775}

ann. SR {'assettrend16': 1.38, 'assettrend2': 0.21, 'assettrend32': 1.18, 'assettrend4': 0.57, 'assettrend64': 1.22, 'assettrend8': 1.02}



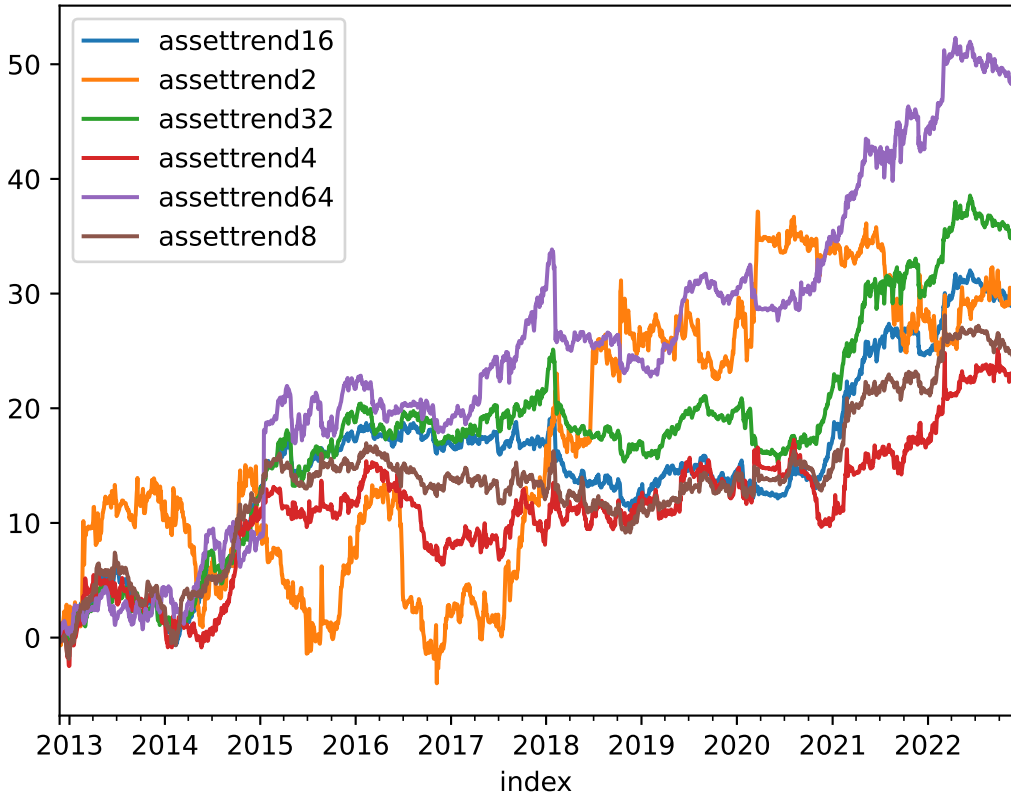


Total Trading Rule P&L for period '10Y'

ann. mean {'assettrend16': 2.846, 'assettrend2': 2.882, 'assettrend32': 3.439, 'assettrend4': 2.213, 'assettrend64': 4.769, 'assettrend8': 2.421}

ann. std {'assettrend16': 3.282, 'assettrend2': 8.486, 'assettrend32': 3.762, 'assettrend4': 5.046, 'assettrend64': 5.295, 'assettrend8': 3.6}

ann. SR {'assettrend16': 0.87, 'assettrend2': 0.34, 'assettrend32': 0.91, 'assettrend4': 0.44, 'assettrend64': 0.9, 'assettrend8': 0.67}

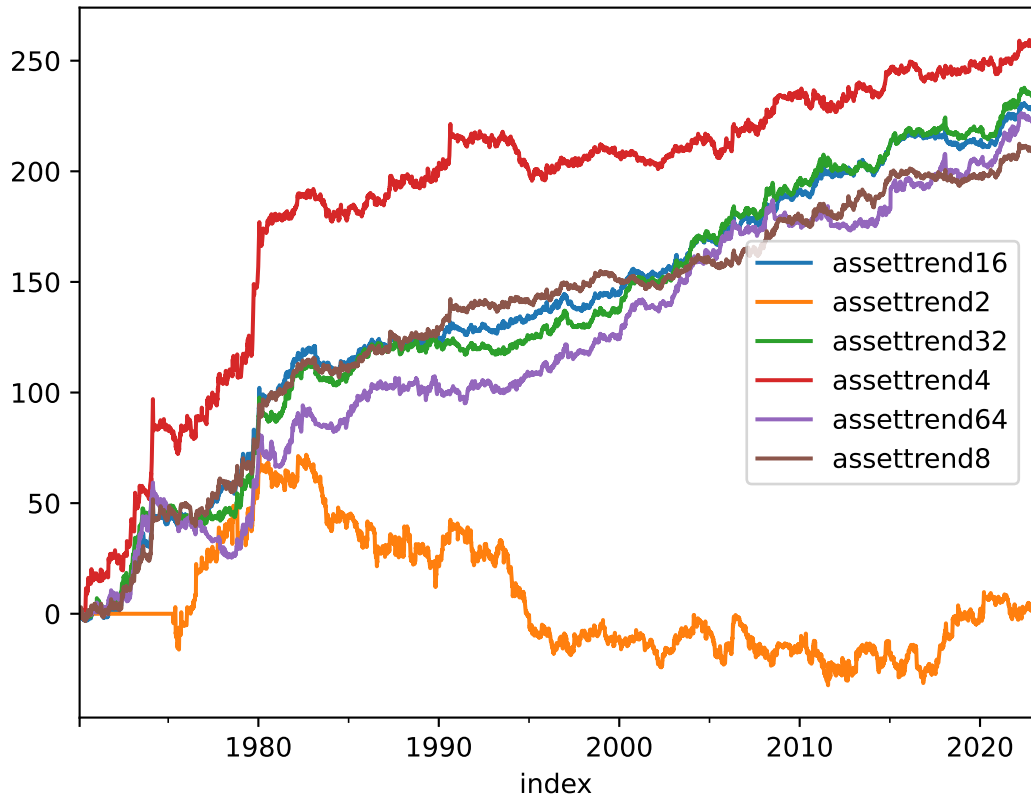


# Total Trading Rule P&L for period '99Y'

ann. mean {'assettrend16': 4.233, 'assettrend2': 0.037, 'assettrend32': 4.353, 'assettrend4': 4.772, 'assettrend64': 4.137, 'assettrend8': 3.884}

ann. std {'assettrend16': 4.666, 'assettrend2': 10.06, 'assettrend32': 4.901, 'assettrend4': 7.357, 'assettrend64': 5.472, 'assettrend8': 5.042}

ann. SR {'assettrend16': 0.91, 'assettrend2': 0.0, 'assettrend32': 0.89, 'assettrend4': 0.65, 'assettrend64': 0.76, 'assettrend8': 0.77}

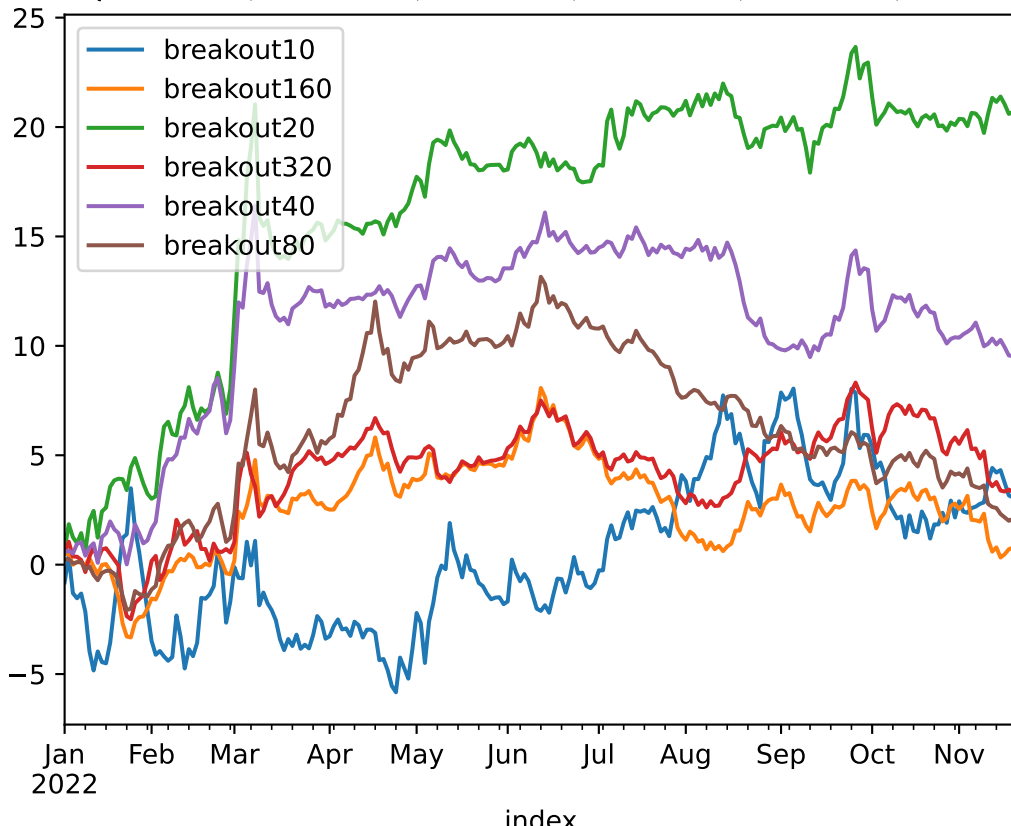


# Total Trading Rule P&L for period 'YTD'

ann. mean {'breakout10': 2.964, 'breakout160': 1.034, 'breakout20': 22.444, 'breakout320': 4.121, 'breakout40': 10.444, 'breakout80': 2.248}

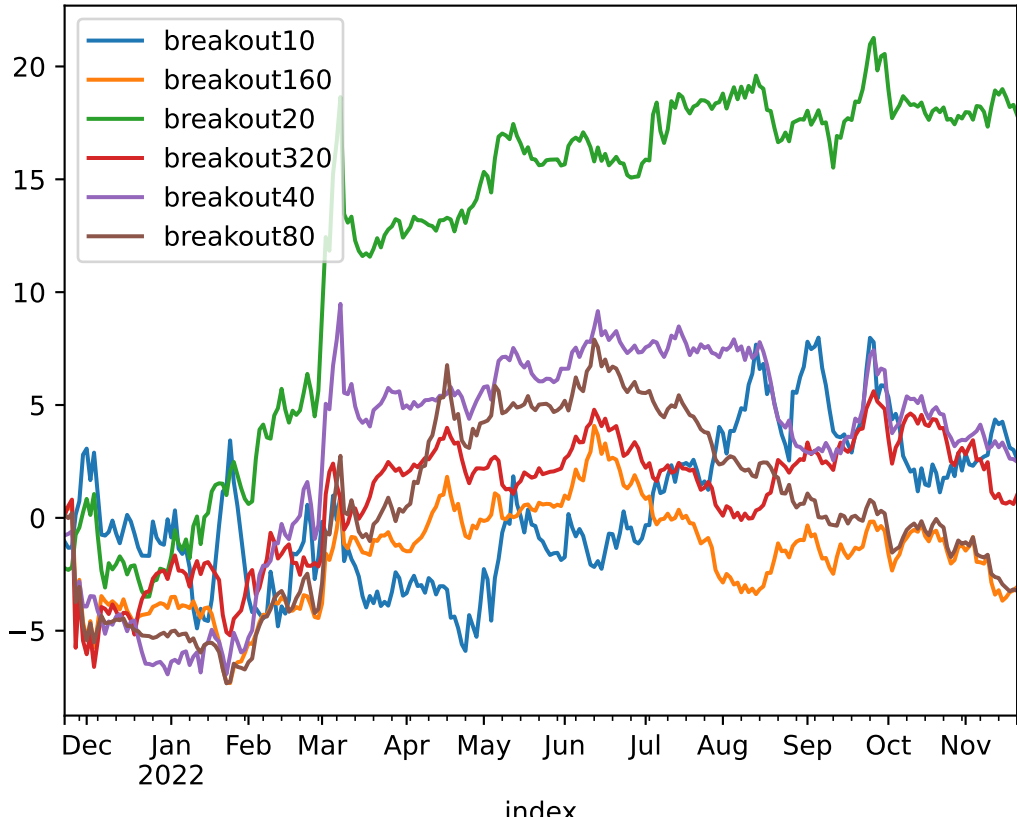
ann. std {'breakout10': 14.194, 'breakout160': 7.437, 'breakout20': 12.543, 'breakout320': 7.739, 'breakout40': 9.92, 'breakout80': 8.161}

ann. SR {'breakout10': 0.21, 'breakout160': 0.14, 'breakout20': 1.79, 'breakout320': 0.53, 'breakout40': 1.05, 'breakout80': 0.28}



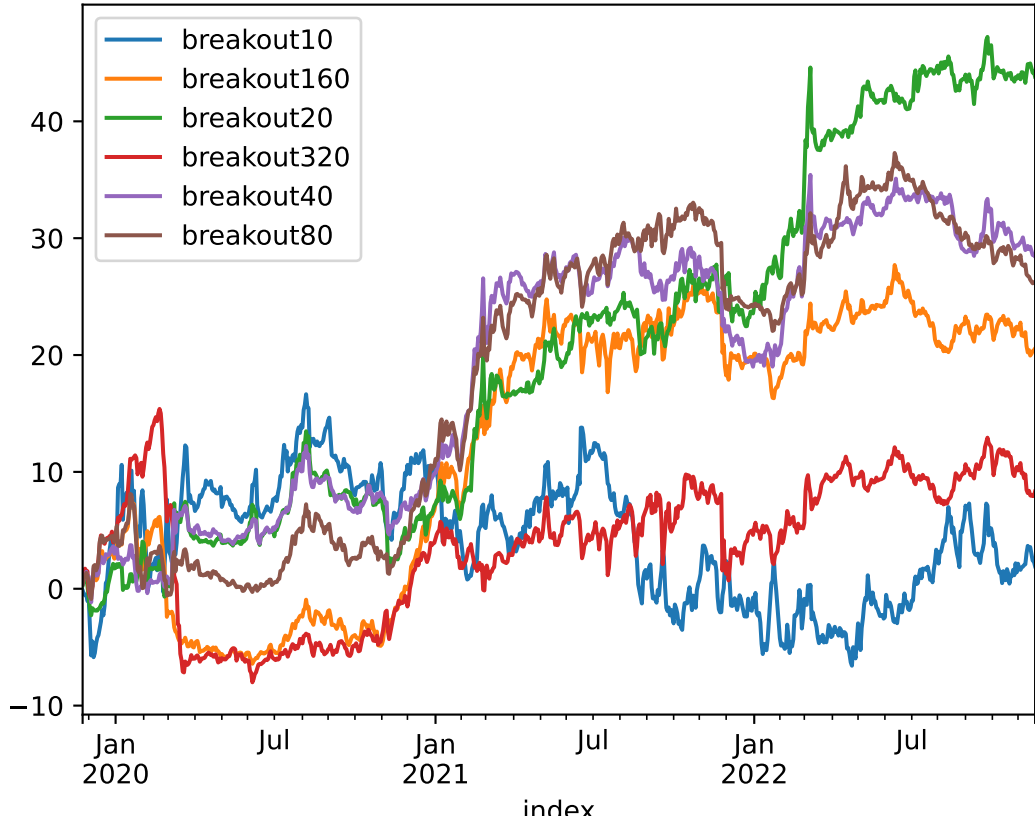
Total Trading Rule P&L for period '1Y'

ann. mean {'breakout10': 2.572, 'breakout160': -3.017, 'breakout20': 17.58, 'breakout320': 0.992, 'breakout40': 2.451, 'breakout80': -3.179}  
ann. std {'breakout10': 14.259, 'breakout160': 8.724, 'breakout20': 12.614, 'breakout320': 10.837, 'breakout40': 10.067, 'breakout80': 8.984}  
ann. SR {'breakout10': 0.18, 'breakout160': -0.35, 'breakout20': 1.39, 'breakout320': 0.09, 'breakout40': 0.24, 'breakout80': -0.35}



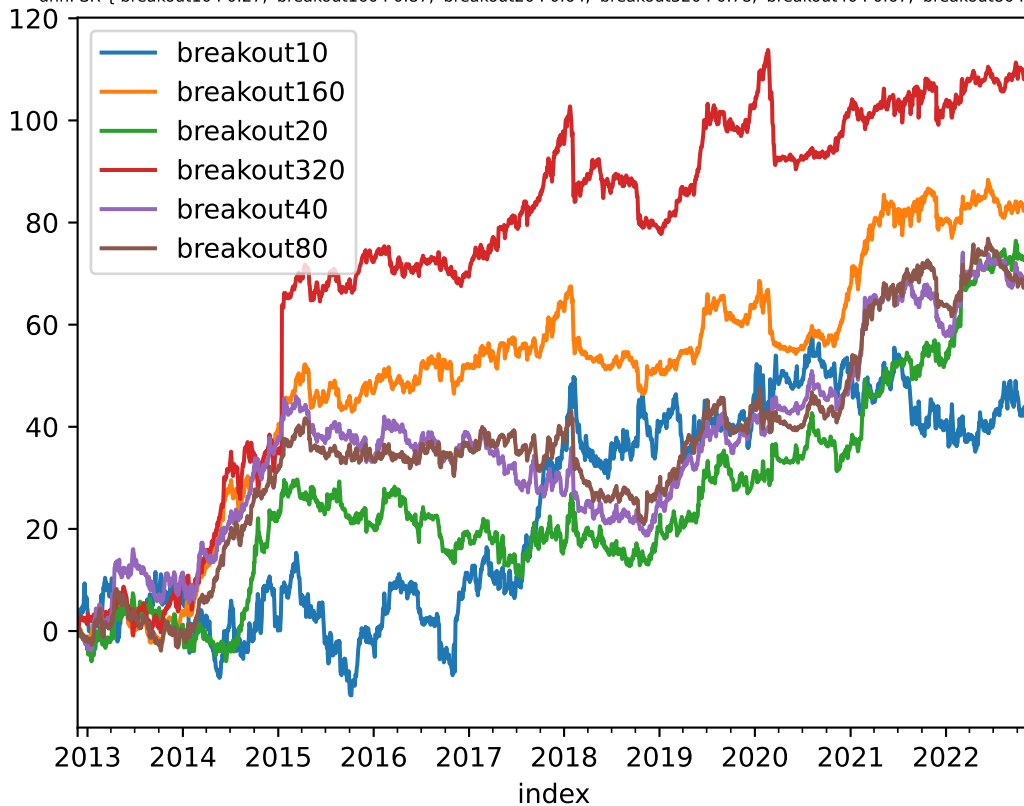
Total Trading Rule P&L for period '3Y'

ann. mean {'breakout10': 0.63, 'breakout160': 6.74, 'breakout20': 14.362, 'breakout320': 2.728, 'breakout40': 9.317, 'breakout80': 8.576}  
ann. std {'breakout10': 15.245, 'breakout160': 9.836, 'breakout20': 11.538, 'breakout320': 10.89, 'breakout40': 10.05, 'breakout80': 9.734}  
ann. SR {'breakout10': 0.04, 'breakout160': 0.69, 'breakout20': 1.24, 'breakout320': 0.25, 'breakout40': 0.93, 'breakout80': 0.88}



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

ann. mean {'breakout10': 4.283, 'breakout160': 7.979, 'breakout20': 7.172, 'breakout320': 10.482, 'breakout40': 6.592, 'breakout80': 6.454}  
ann. std {'breakout10': 15.815, 'breakout160': 9.149, 'breakout20': 11.209, 'breakout320': 13.354, 'breakout40': 9.844, 'breakout80': 9.019}  
ann. SR {'breakout10': 0.27, 'breakout160': 0.87, 'breakout20': 0.64, 'breakout320': 0.78, 'breakout40': 0.67, 'breakout80': 0.72}

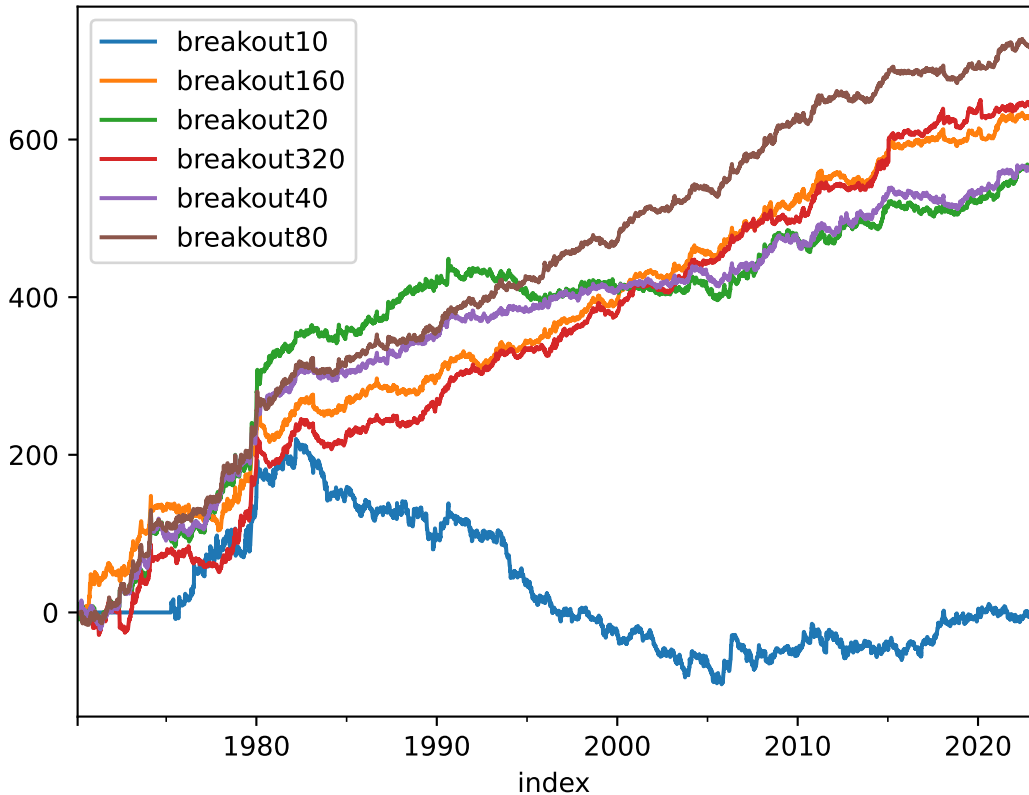


Total Trading Rule P&L for period '99Y'

ann. mean {'breakout10': -0.071, 'breakout160': 11.65, 'breakout20': 10.501, 'breakout320': 11.953, 'breakout40': 10.414, 'breakout80': 13.316}

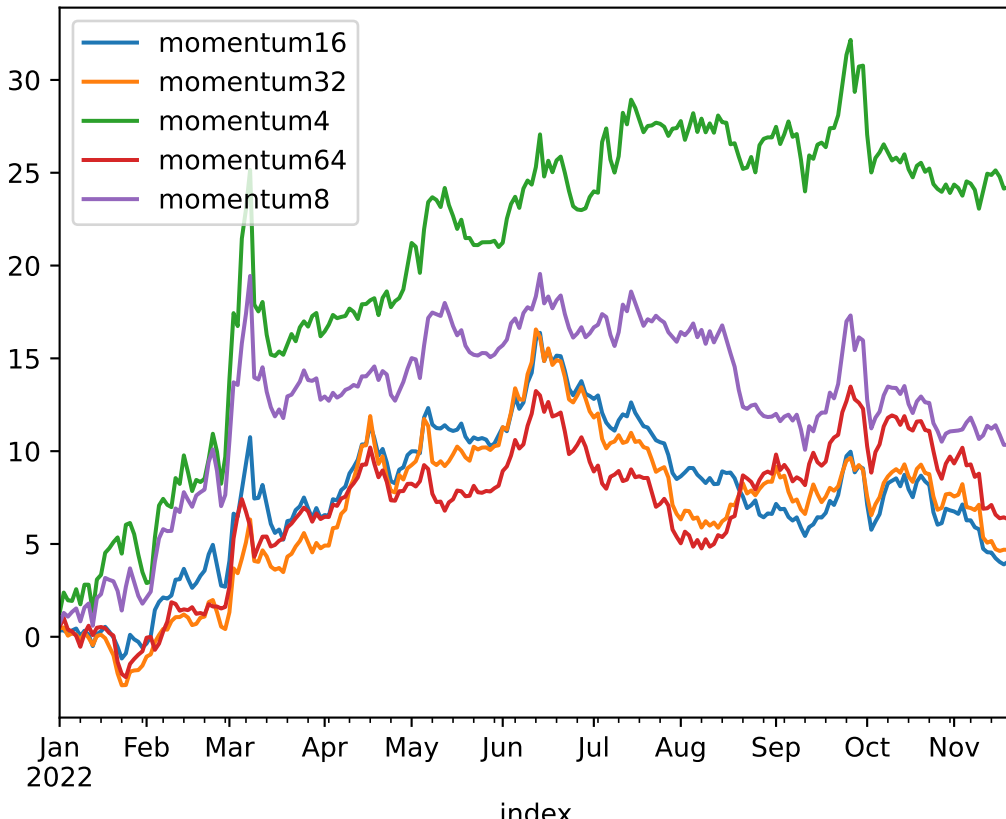
ann. std {'breakout10': 20.856, 'breakout160': 12.51, 'breakout20': 16.118, 'breakout320': 13.063, 'breakout40': 13.246, 'breakout80': 12.769}

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'

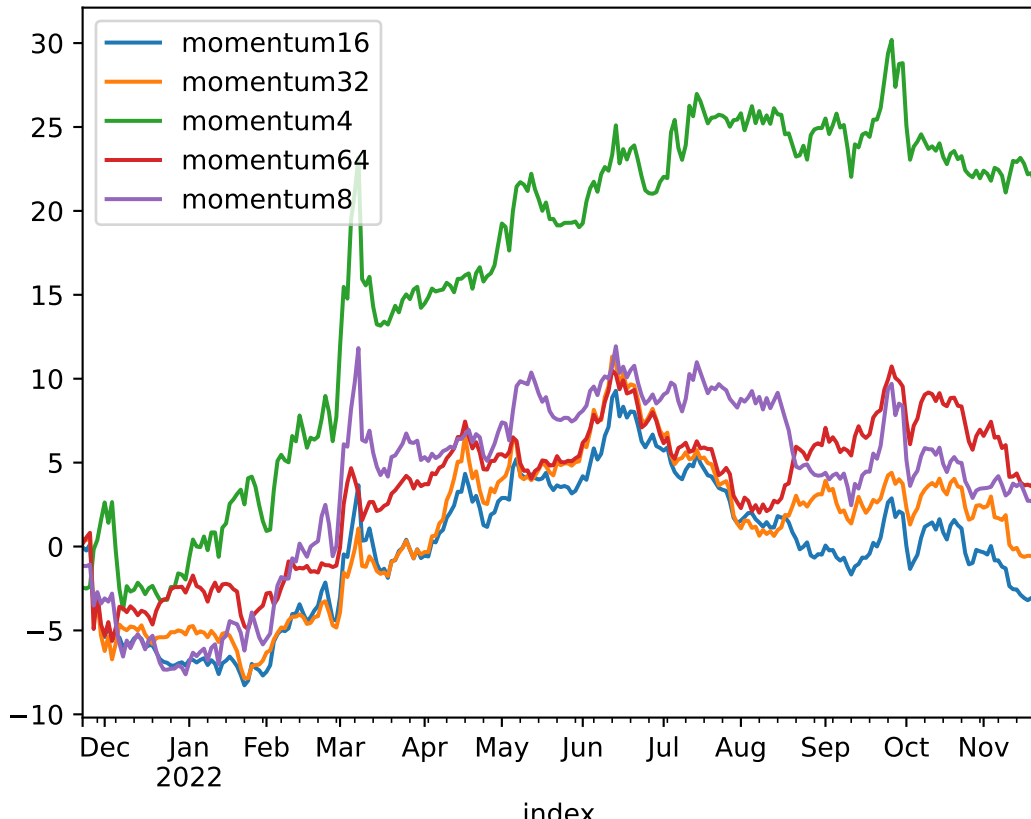
ann. mean {'momentum16': 4.481, 'momentum32': 5.248, 'momentum4': 26.047, 'momentum64': 7.497, 'momentum8': 11.148}  
ann. std {'momentum16': 10.469, 'momentum32': 10.127, 'momentum4': 17.971, 'momentum64': 9.729, 'momentum8': 13.713}  
ann. SR {'momentum16': 0.43, 'momentum32': 0.52, 'momentum4': 1.45, 'momentum64': 0.77, 'momentum8': 0.81}





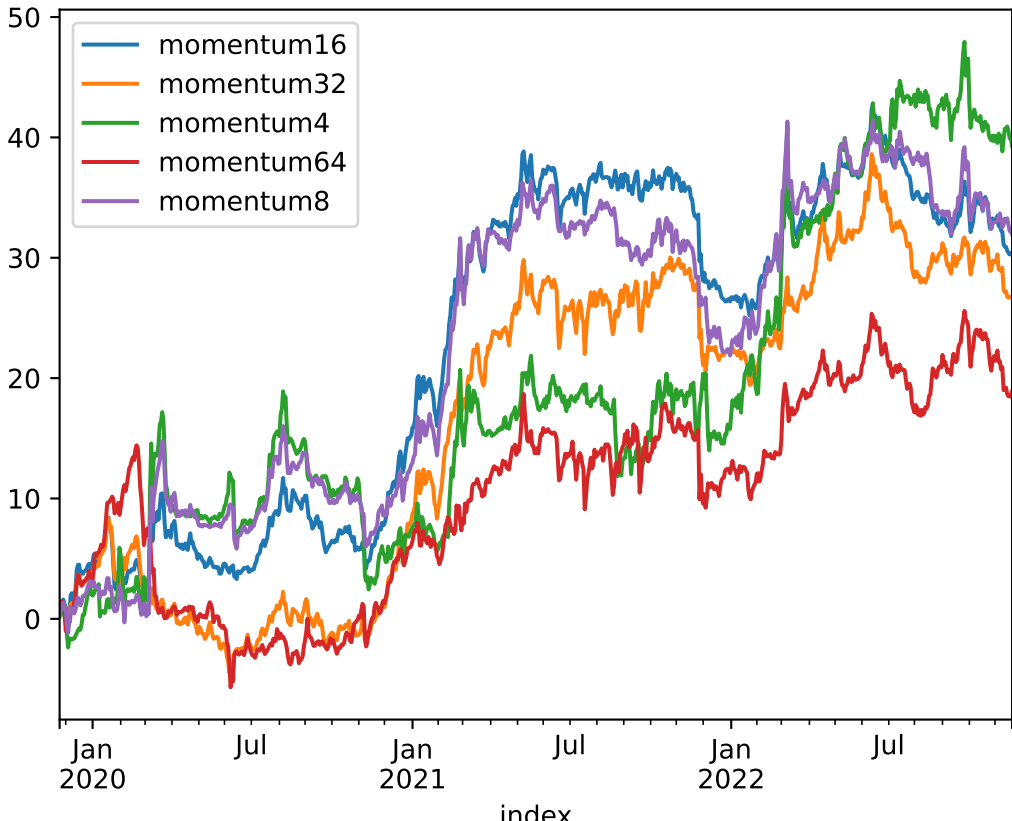
Total Trading Rule P&L for period '1Y'

ann. mean {'momentum16': -3.009, 'momentum32': -0.501, 'momentum4': 21.205, 'momentum64': 3.956, 'momentum8': 2.406}  
ann. std {'momentum16': 10.873, 'momentum32': 11.175, 'momentum4': 17.977, 'momentum64': 11.446, 'momentum8': 13.607}  
ann. SR {'momentum16': -0.28, 'momentum32': -0.04, 'momentum4': 1.18, 'momentum64': 0.35, 'momentum8': 0.18}



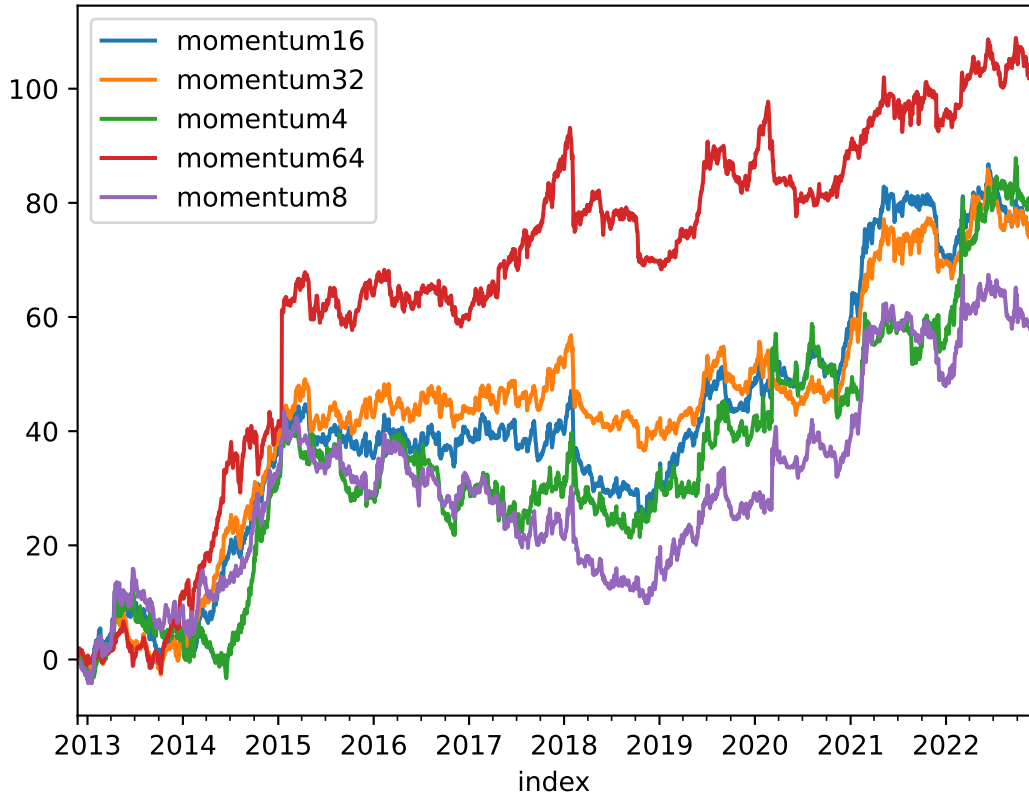
Total Trading Rule P&L for period '3Y'

ann. mean {'momentum16': 9.969, 'momentum32': 8.782, 'momentum4': 12.875, 'momentum64': 6.186, 'momentum8': 10.468}  
ann. std {'momentum16': 11.106, 'momentum32': 10.948, 'momentum4': 16.067, 'momentum64': 11.074, 'momentum8': 12.789}  
ann. SR {'momentum16': 0.9, 'momentum32': 0.8, 'momentum4': 0.8, 'momentum64': 0.56, 'momentum8': 0.82}



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

ann. mean {'momentum16': 7.31, 'momentum32': 7.276, 'momentum4': 7.777, 'momentum64': 10.034, 'momentum8': 5.687}  
ann. std {'momentum16': 9.952, 'momentum32': 9.511, 'momentum4': 13.674, 'momentum64': 12.015, 'momentum8': 11.317}  
ann. SR {'momentum16': 0.73, 'momentum32': 0.76, 'momentum4': 0.57, 'momentum64': 0.84, 'momentum8': 0.5}

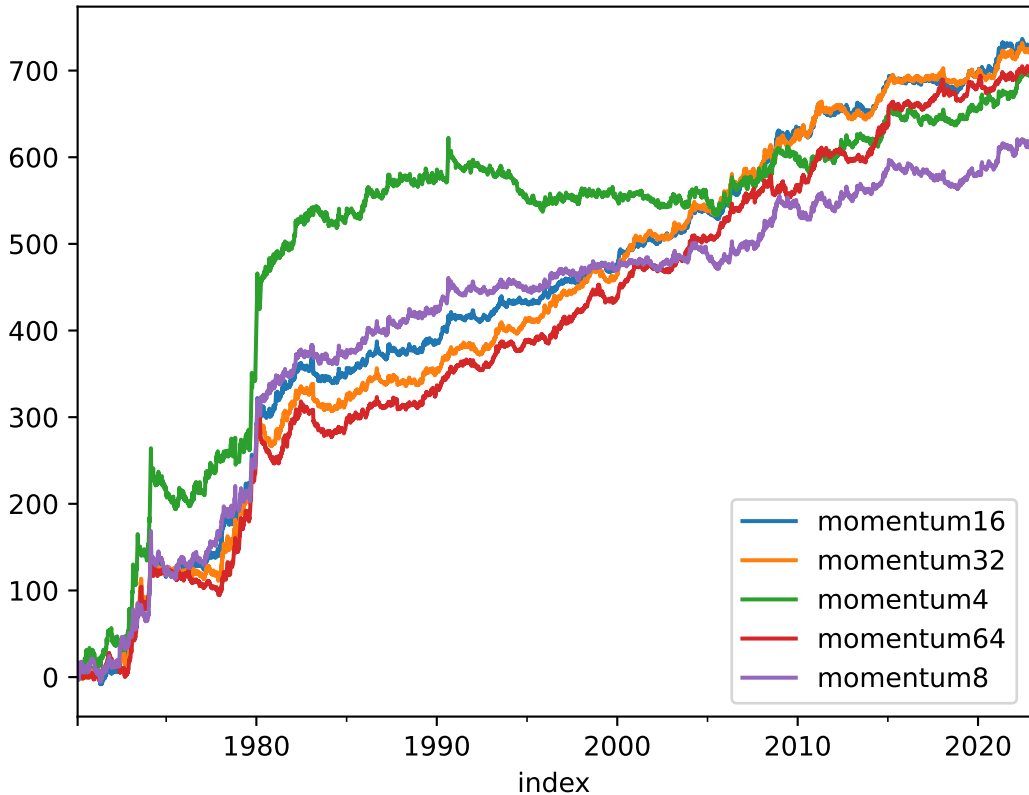


Total Trading Rule P&L for period '99Y'

ann. mean {'momentum16': 13.459, 'momentum32': 13.382, 'momentum4': 12.907, 'momentum64': 12.982, 'momentum8': 11.364}

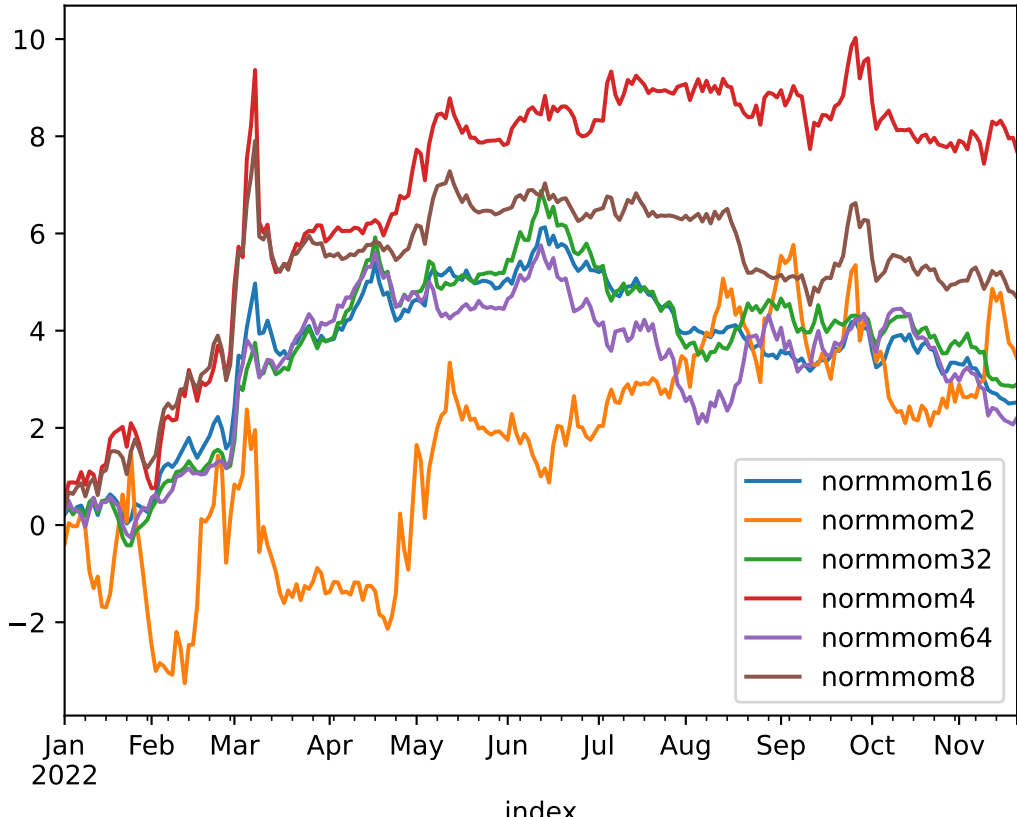
ann. std {'momentum16': 14.237, 'momentum32': 13.869, 'momentum4': 20.096, 'momentum64': 13.504, 'momentum8': 15.887}

ann. SR {'momentum16': 0.95, 'momentum32': 0.96, 'momentum4': 0.64, 'momentum64': 0.96, 'momentum8': 0.72}



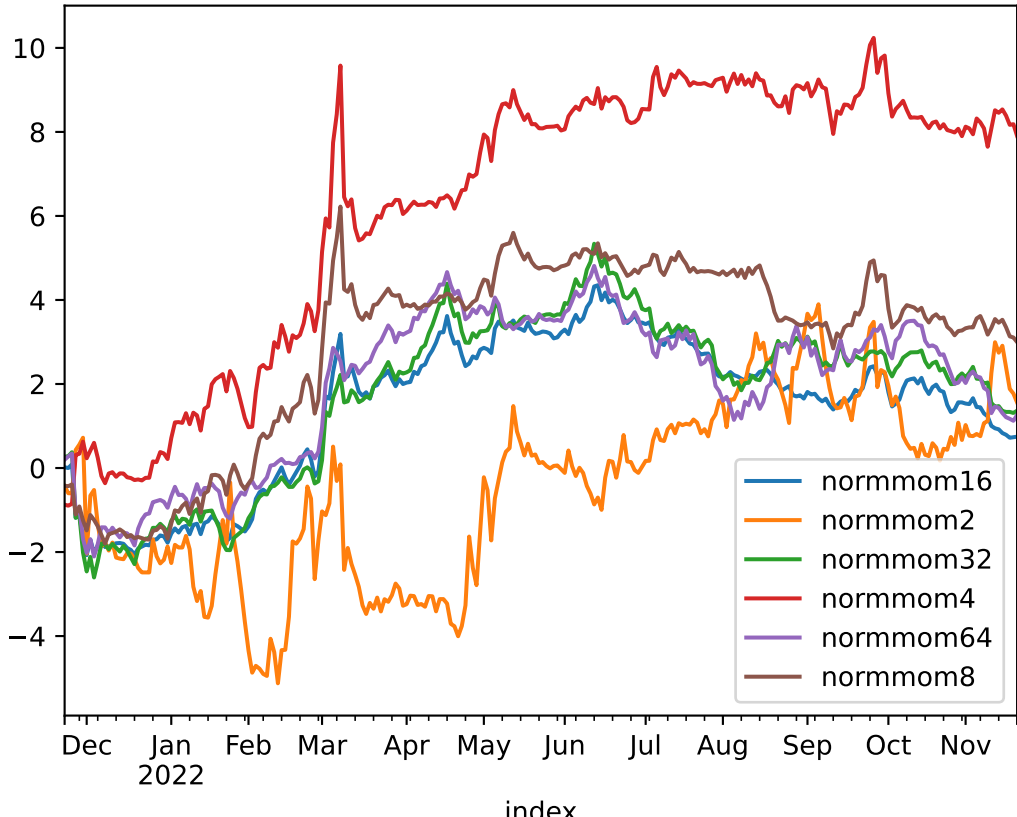
Total Trading Rule P&L for period 'YTD'

ann. mean {'normmom16': 2.798, 'normmom2': 3.8, 'normmom32': 3.213, 'normmom4': 8.523, 'normmom64': 2.447, 'normmom8': 5.188}  
ann. std {'normmom16': 3.246, 'normmom2': 8.424, 'normmom32': 3.323, 'normmom4': 6.206, 'normmom64': 3.553, 'normmom8': 4.431}  
ann. SR {'normmom16': 0.86, 'normmom2': 0.45, 'normmom32': 0.97, 'normmom4': 1.37, 'normmom64': 0.69, 'normmom8': 1.17}



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

ann. mean {'normmom16': 0.734, 'normmom2': 1.537, 'normmom32': 1.344, 'normmom4': 7.783, 'normmom64': 1.242, 'normmom8': 2.952}  
ann. std {'normmom16': 3.46, 'normmom2': 8.715, 'normmom32': 3.79, 'normmom4': 6.105, 'normmom64': 3.848, 'normmom8': 4.339}  
ann. SR {'normmom16': 0.21, 'normmom2': 0.18, 'normmom32': 0.35, 'normmom4': 1.27, 'normmom64': 0.32, 'normmom8': 0.68}

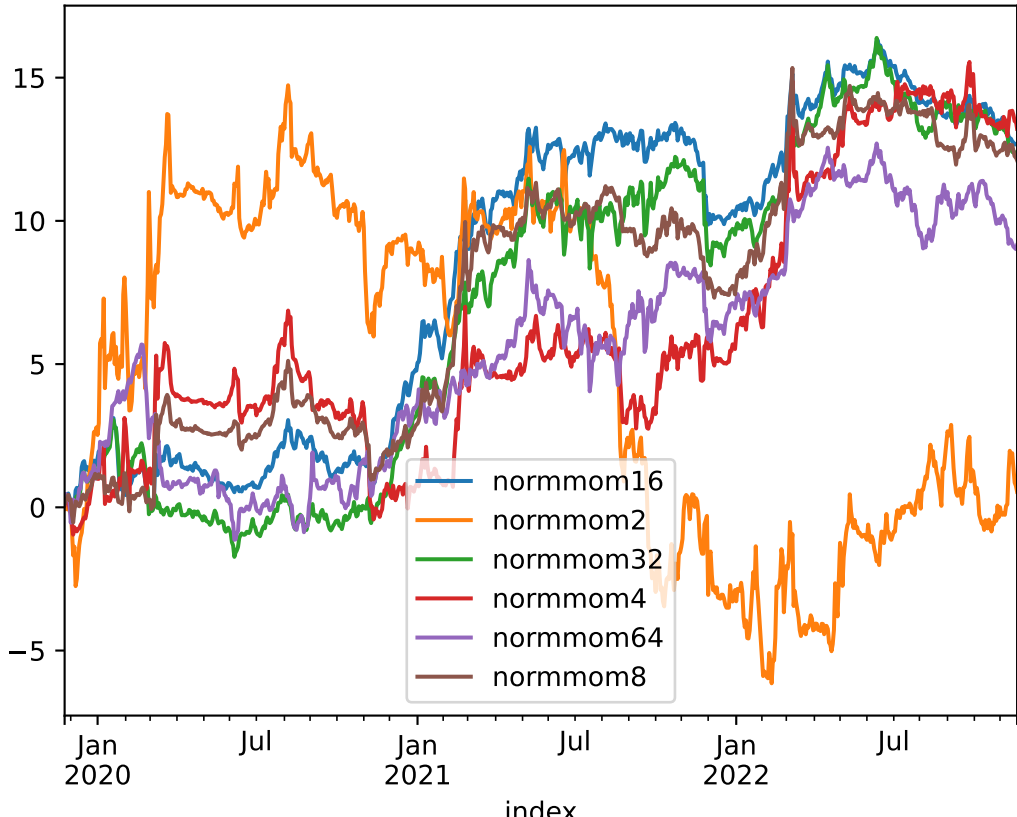


Total Trading Rule P&L for period '3Y'

ann. mean {'normmom16': 4.16, 'normmom2': 0.178, 'normmom32': 4.069, 'normmom4': 4.332, 'normmom64': 3.001, 'normmom8': 3.971}

ann. std {'normmom16': 3.745, 'normmom2': 8.967, 'normmom32': 4.068, 'normmom4': 5.937, 'normmom64': 4.385, 'normmom8': 4.266}

ann. SR {'normmom16': 1.11, 'normmom2': 0.02, 'normmom32': 1.0, 'normmom4': 0.73, 'normmom64': 0.68, 'normmom8': 0.93}

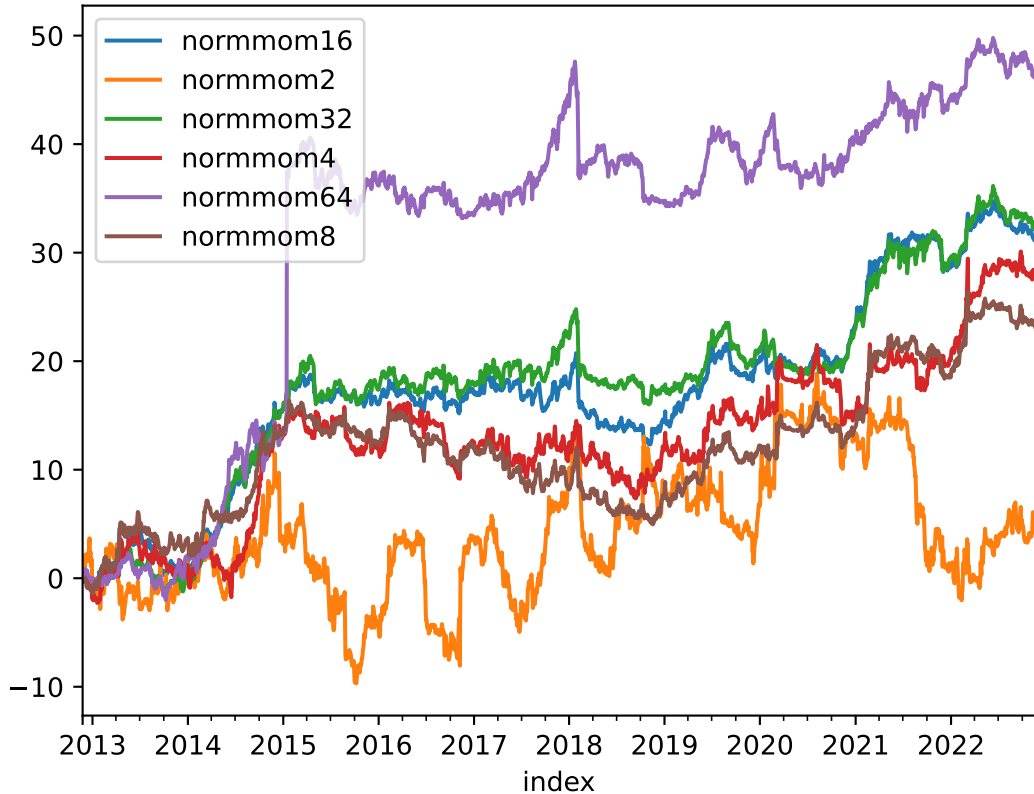


### Total Trading Rule P&L for period '10Y'

ann. mean {'normmom16': 3.059, 'normmom2': 0.457, 'normmom32': 3.16, 'normmom4': 2.728, 'normmom64': 4.541, 'normmom8': 2.276}

ann. std {'normmom16': 3.581, 'normmom2': 9.113, 'normmom32': 3.736, 'normmom4': 5.495, 'normmom64': 8.564, 'normmom8': 4.057}

ann. SR {'normmom16': 0.85, 'normmom2': 0.05, 'normmom32': 0.85, 'normmom4': 0.5, 'normmom64': 0.53, 'normmom8': 0.56}



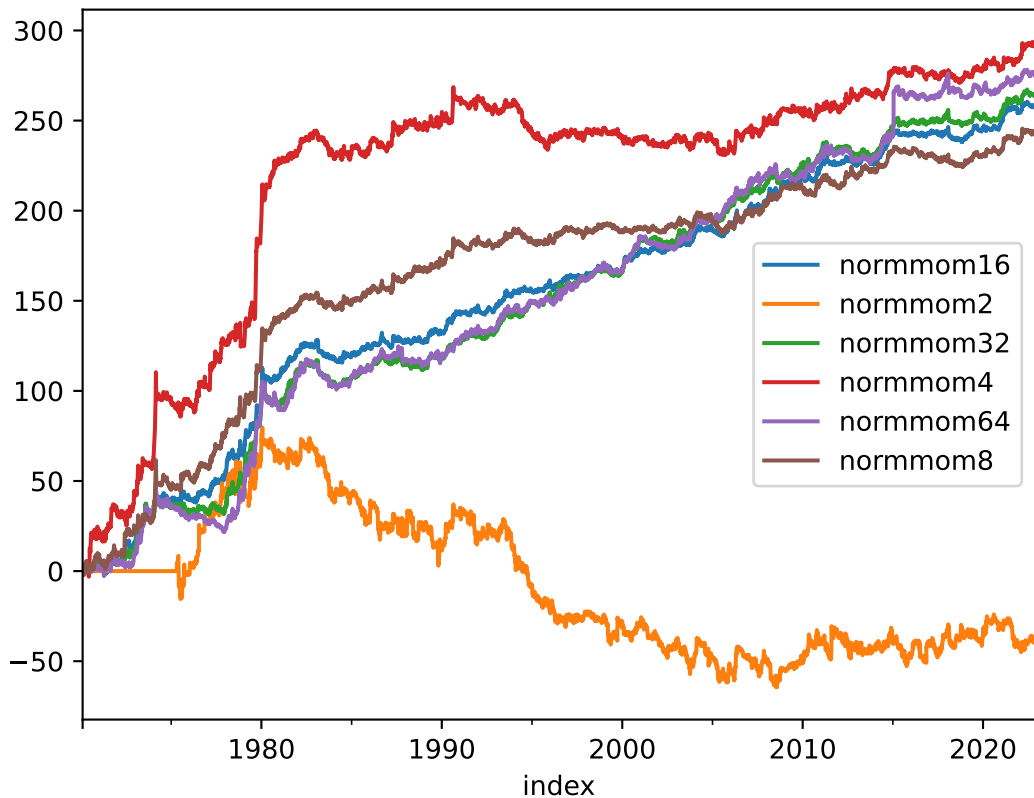


### Total Trading Rule P&L for period '99Y'

ann. mean {'normmom16': 4.774, 'normmom2': -0.71, 'normmom32': 4.893, 'normmom4': 5.414, 'normmom64': 5.104, 'normmom8': 4.504}

ann. std {'normmom16': 4.928, 'normmom2': 11.211, 'normmom32': 4.997, 'normmom4': 8.331, 'normmom64': 6.317, 'normmom8': 5.938}

ann. SR {'normmom16': 0.97, 'normmom2': -0.06, 'normmom32': 0.98, 'normmom4': 0.65, 'normmom64': 0.81, 'normmom8': 0.76}

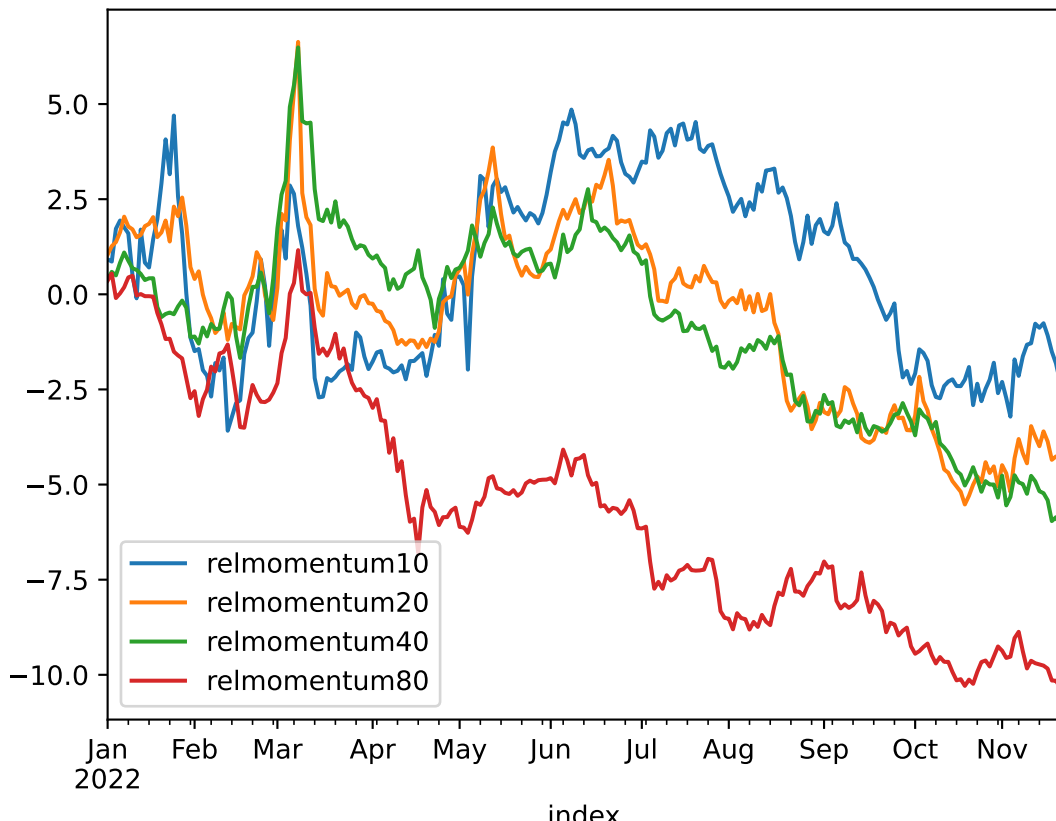


# Total Trading Rule P&L for period 'YTD'

ann. mean {'relmomentum10': -2.553, 'relmomentum20': -4.771, 'relmomentum40': -6.71, 'relmomentum80': -11.446}

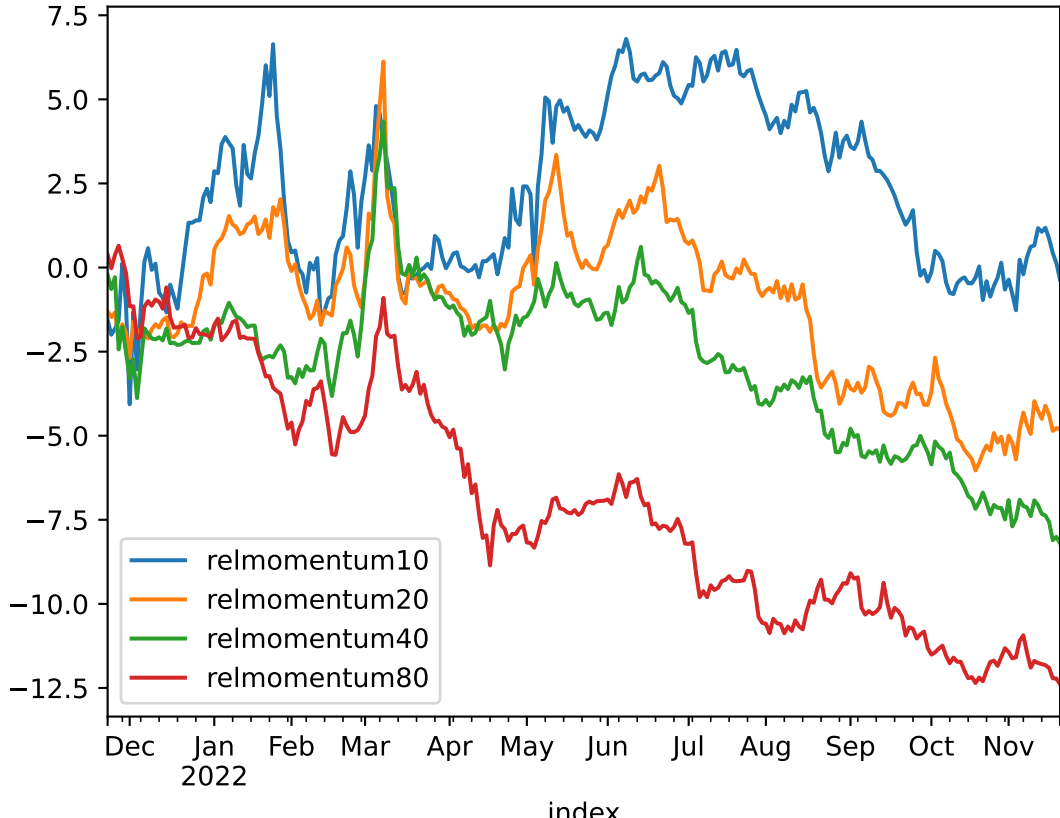
ann. std {'relmomentum10': 10.434, 'relmomentum20': 8.746, 'relmomentum40': 6.77, 'relmomentum80': 5.827}

ann. SR {'relmomentum10': -0.24, 'relmomentum20': -0.55, 'relmomentum40': -0.99, 'relmomentum80': -1.96}



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

ann. mean {'relmomentum10': -0.355, 'relmomentum20': -4.739, 'relmomentum40': -8.077, 'relmomentum80': -12.201}  
ann. std {'relmomentum10': 11.539, 'relmomentum20': 8.6, 'relmomentum40': 7.172, 'relmomentum80': 5.934}  
ann. SR {'relmomentum10': -0.03, 'relmomentum20': -0.55, 'relmomentum40': -1.13, 'relmomentum80': -2.06}

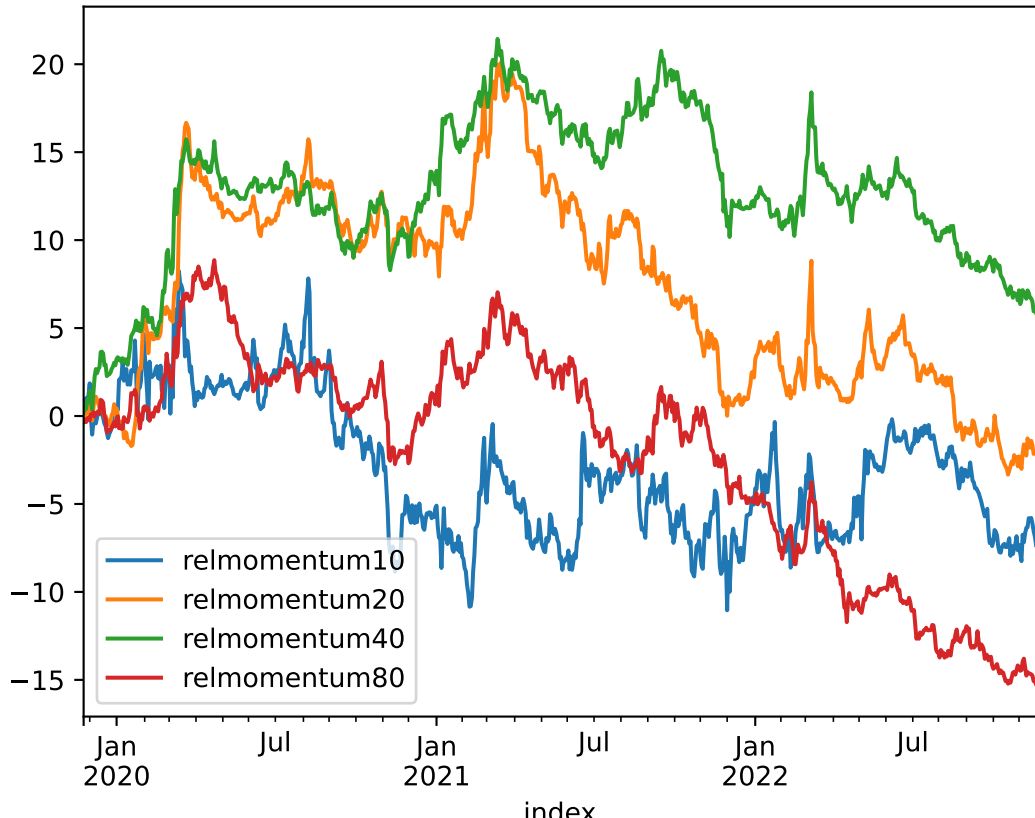


Total Trading Rule P&L for period '3Y'

ann. mean {'relmomentum10': -2.406, 'relmomentum20': -0.693, 'relmomentum40': 1.92, 'relmomentum80': -4.999}

ann. std {'relmomentum10': 12.803, 'relmomentum20': 9.066, 'relmomentum40': 7.5, 'relmomentum80': 6.968}

ann. SR {'relmomentum10': -0.19, 'relmomentum20': -0.08, 'relmomentum40': 0.26, 'relmomentum80': -0.72}

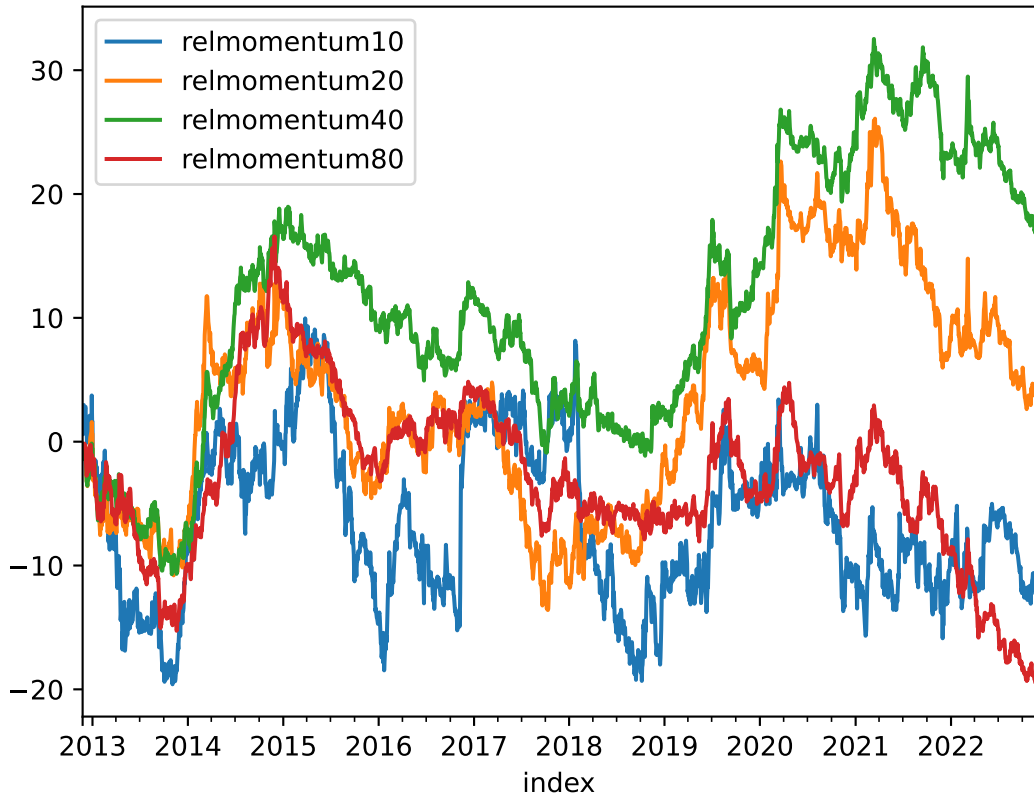


Total Trading Rule P&L for period '10Y'

ann. mean {'relmomentum10': -1.195, 'relmomentum20': 0.378, 'relmomentum40': 1.664, 'relmomentum80': -1.901}

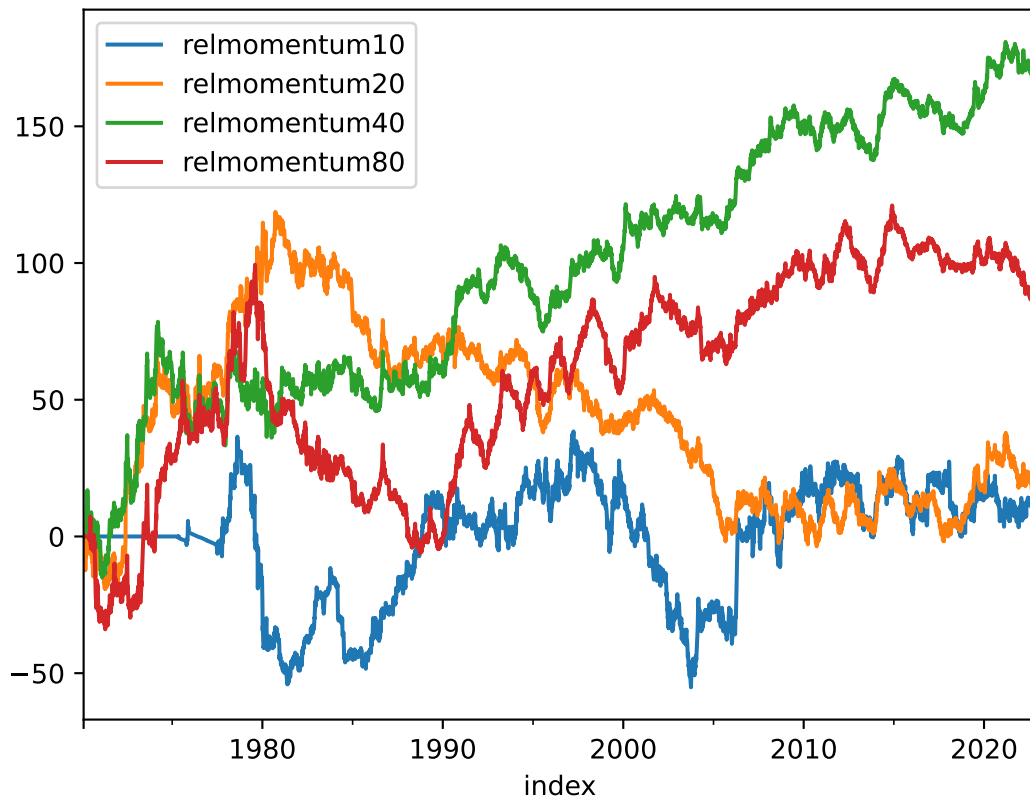
ann. std {'relmomentum10': 13.024, 'relmomentum20': 9.057, 'relmomentum40': 7.391, 'relmomentum80': 6.852}

ann. SR {'relmomentum10': -0.09, 'relmomentum20': 0.04, 'relmomentum40': 0.23, 'relmomentum80': -0.28}

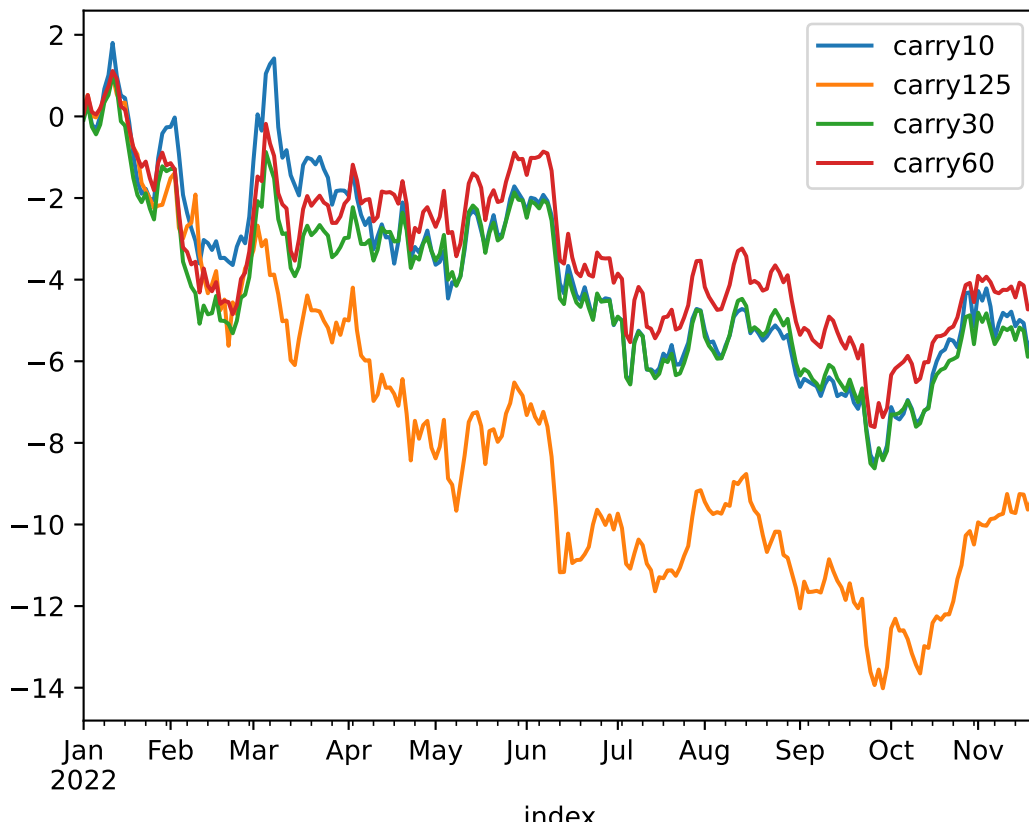


Total Trading Rule P&L for period '99Y'

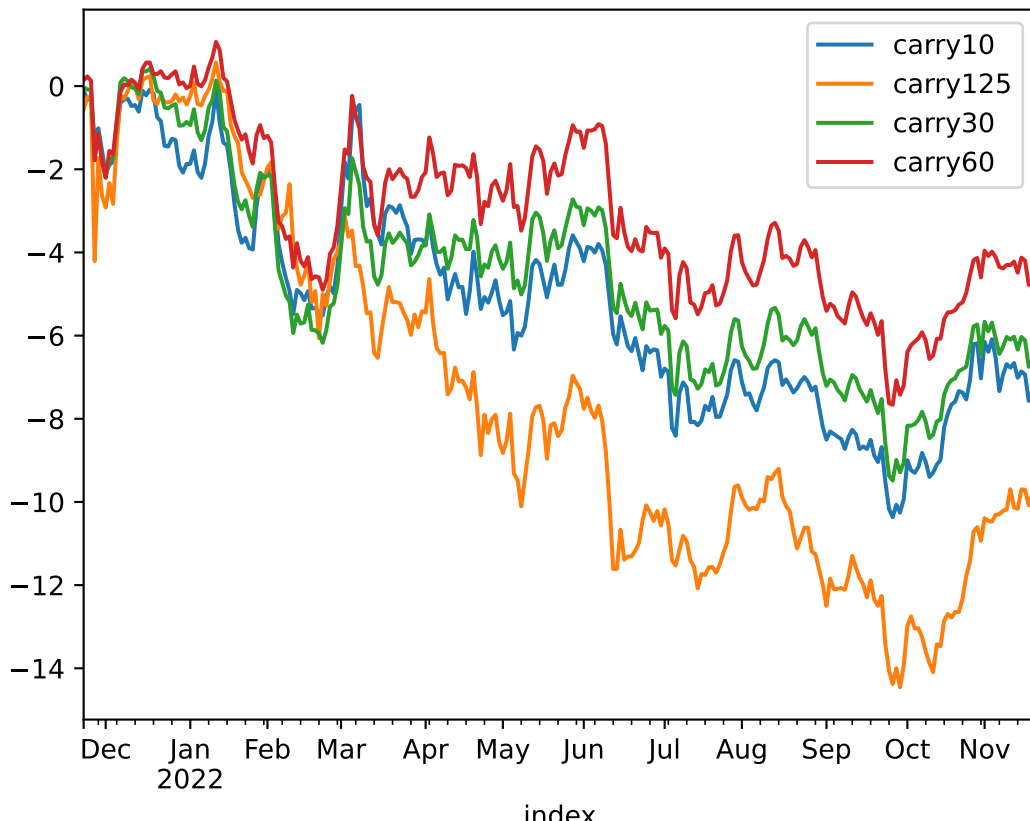
ann. mean {'relmomentum10': 0.131, 'relmomentum20': 0.291, 'relmomentum40': 3.072, 'relmomentum80': 1.582}  
ann. std {'relmomentum10': 13.334, 'relmomentum20': 11.535, 'relmomentum40': 10.804, 'relmomentum80': 11.072}  
ann. SR {'relmomentum10': 0.01, 'relmomentum20': 0.03, 'relmomentum40': 0.28, 'relmomentum80': 0.14}



Total Trading Rule P&L for period 'YTD'  
ann. mean {'carry10': -6.442, 'carry125': -10.446, 'carry30': -6.803, 'carry60': -5.443}  
ann. std {'carry10': 7.358, 'carry125': 7.68, 'carry30': 6.892, 'carry60': 6.883}  
ann. SR {'carry10': -0.88, 'carry125': -1.36, 'carry30': -0.99, 'carry60': -0.79}

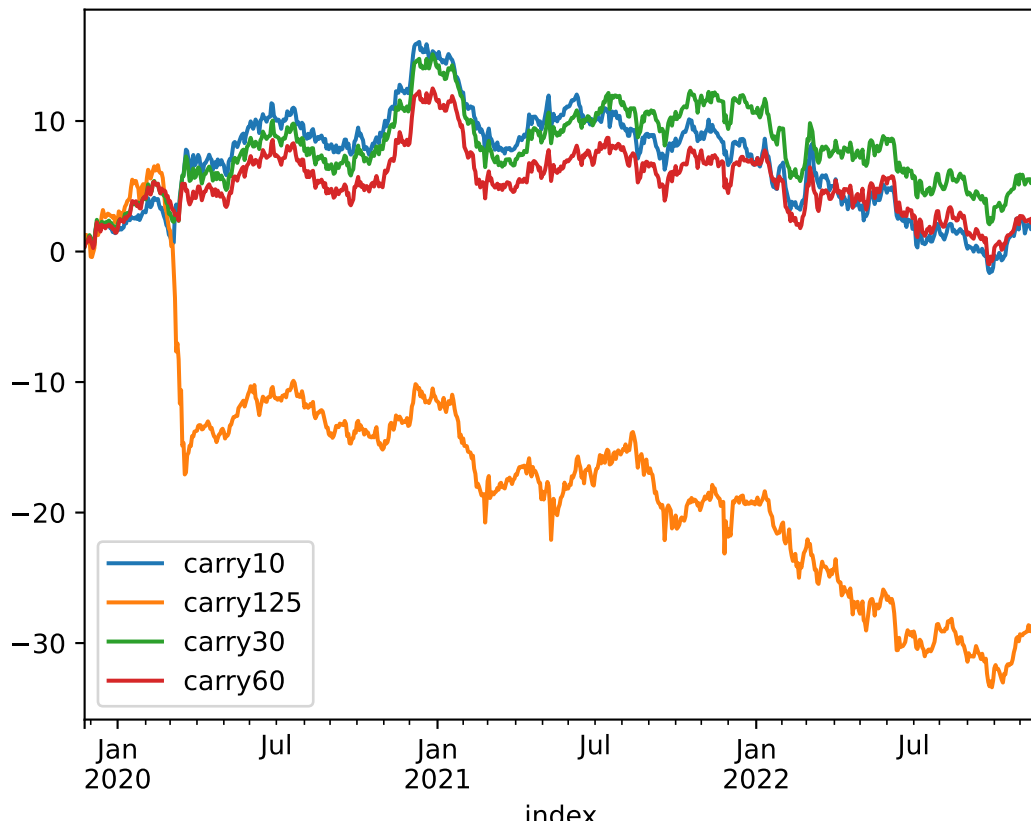


Total Trading Rule P&L for period '1Y'  
ann. mean {'carry10': -7.567, 'carry125': -9.717, 'carry30': -6.891, 'carry60': -4.886}  
ann. std {'carry10': 7.227, 'carry125': 8.956, 'carry30': 6.95, 'carry60': 6.993}  
ann. SR {'carry10': -1.05, 'carry125': -1.08, 'carry30': -0.99, 'carry60': -0.7}

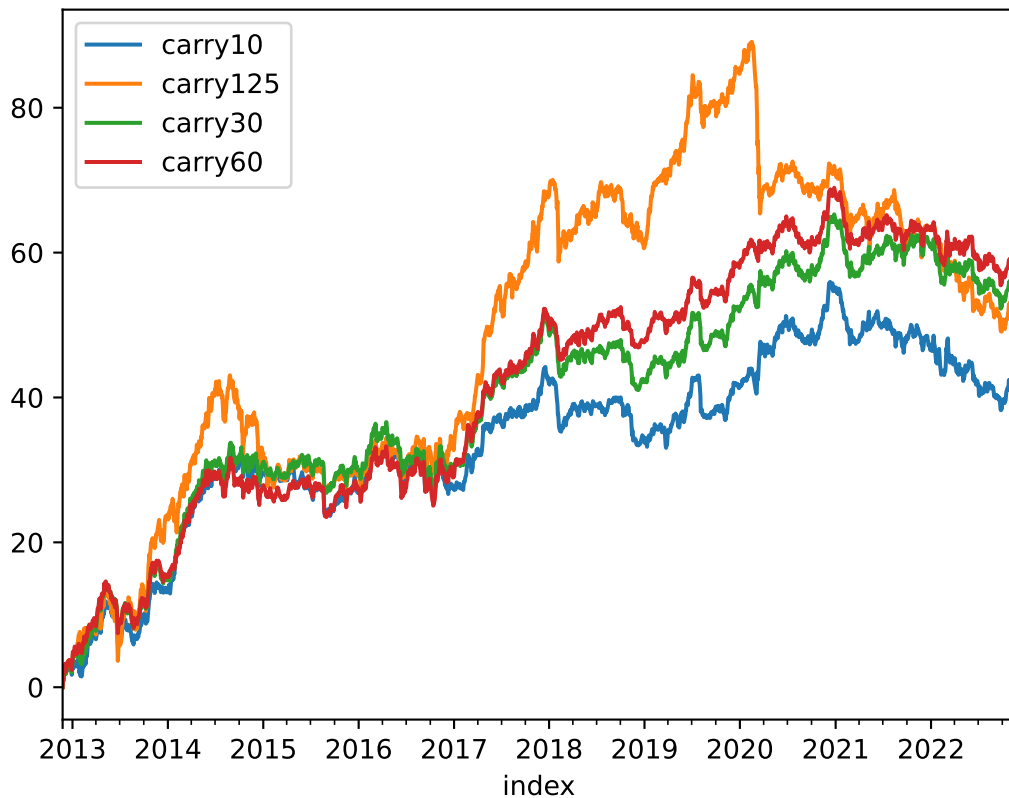




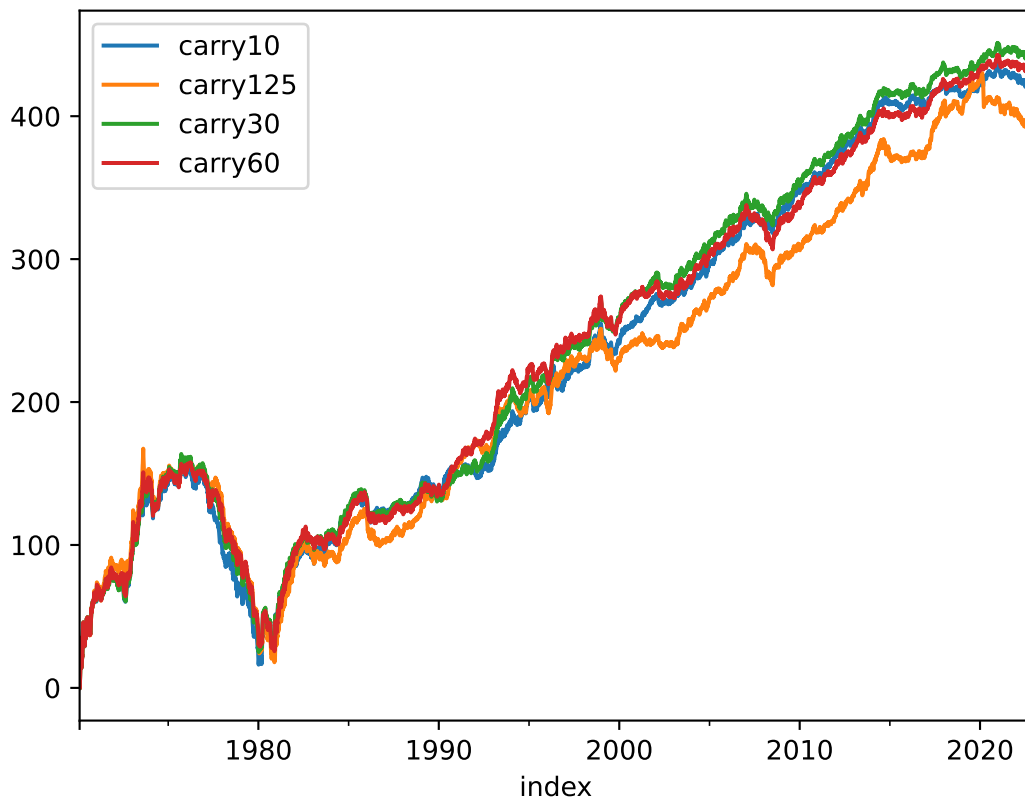
Total Trading Rule P&L for period '3Y'  
ann. mean {'carry10': 0.339, 'carry125': -9.44, 'carry30': 1.499, 'carry60': 0.566}  
ann. std {'carry10': 6.818, 'carry125': 9.459, 'carry30': 6.618, 'carry60': 6.549}  
ann. SR {'carry10': 0.05, 'carry125': -1.0, 'carry30': 0.23, 'carry60': 0.09}



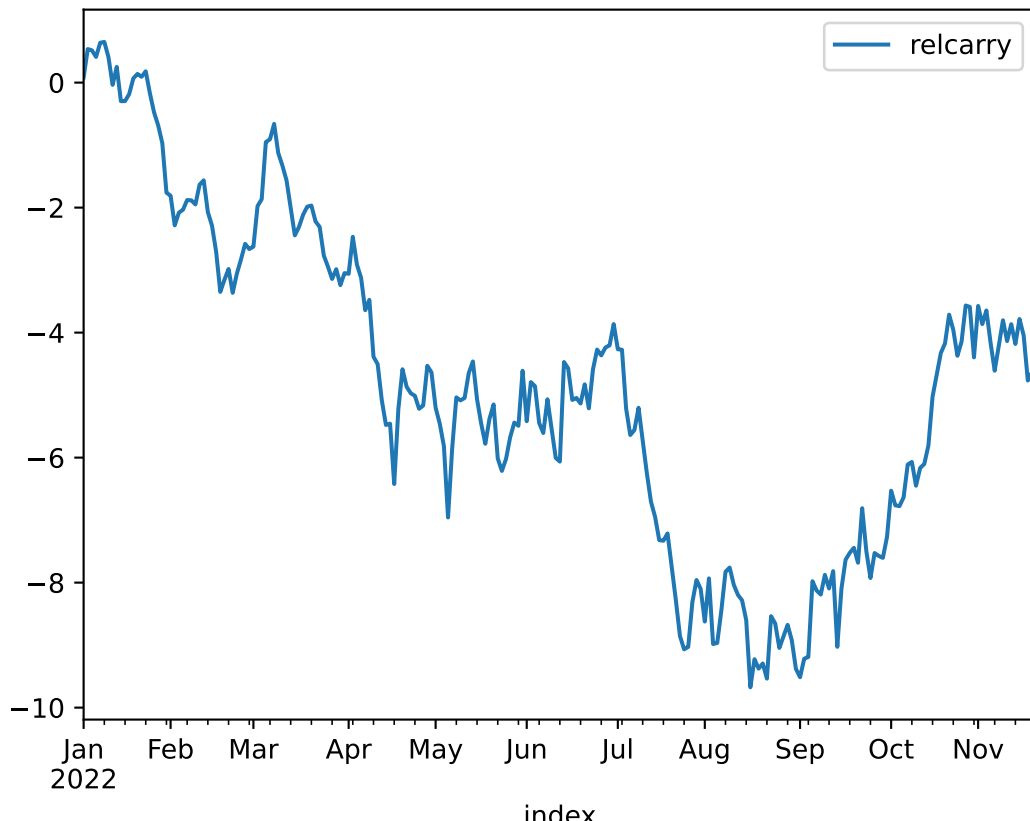
Total Trading Rule P&L for period '10Y'  
ann. mean {'carry10': 4.019, 'carry125': 5.27, 'carry30': 5.376, 'carry60': 5.713}  
ann. std {'carry10': 6.476, 'carry125': 9.133, 'carry30': 6.587, 'carry60': 6.549}  
ann. SR {'carry10': 0.62, 'carry125': 0.58, 'carry30': 0.82, 'carry60': 0.87}



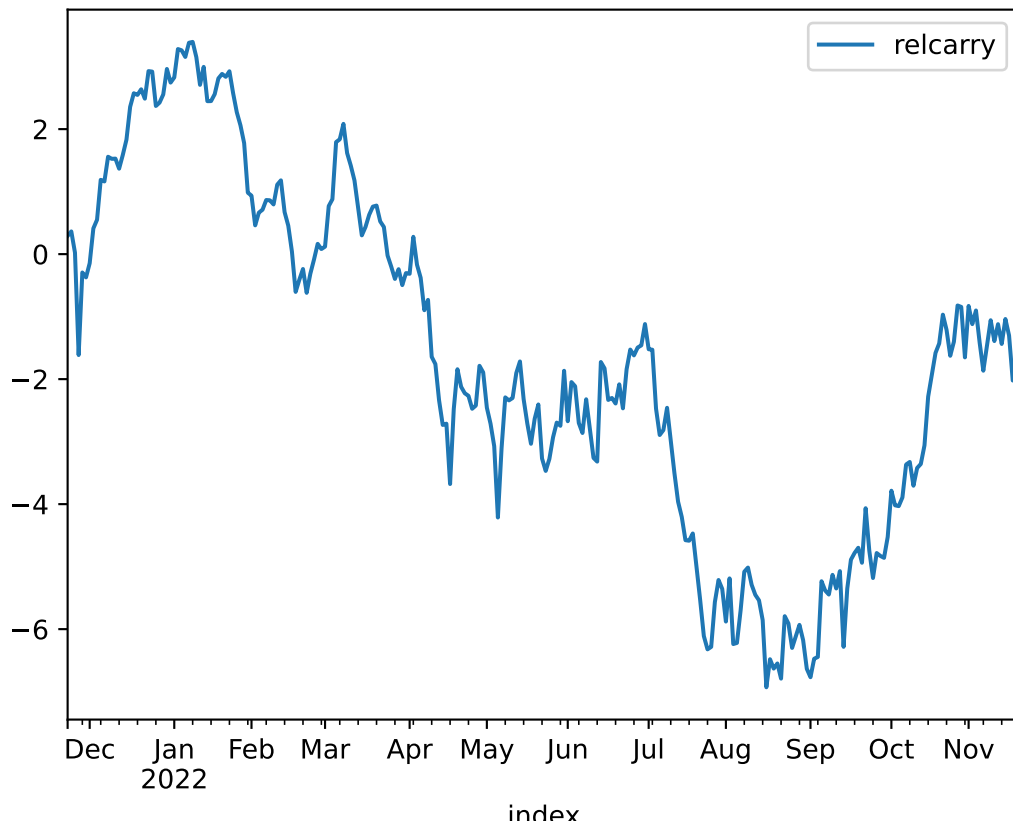
Total Trading Rule P&L for period '99Y'  
ann. mean {'carry10': 7.829, 'carry125': 7.334, 'carry30': 8.191, 'carry60': 8.029}  
ann. std {'carry10': 11.87, 'carry125': 12.109, 'carry30': 11.881, 'carry60': 11.831}  
ann. SR {'carry10': 0.66, 'carry125': 0.61, 'carry30': 0.69, 'carry60': 0.68}



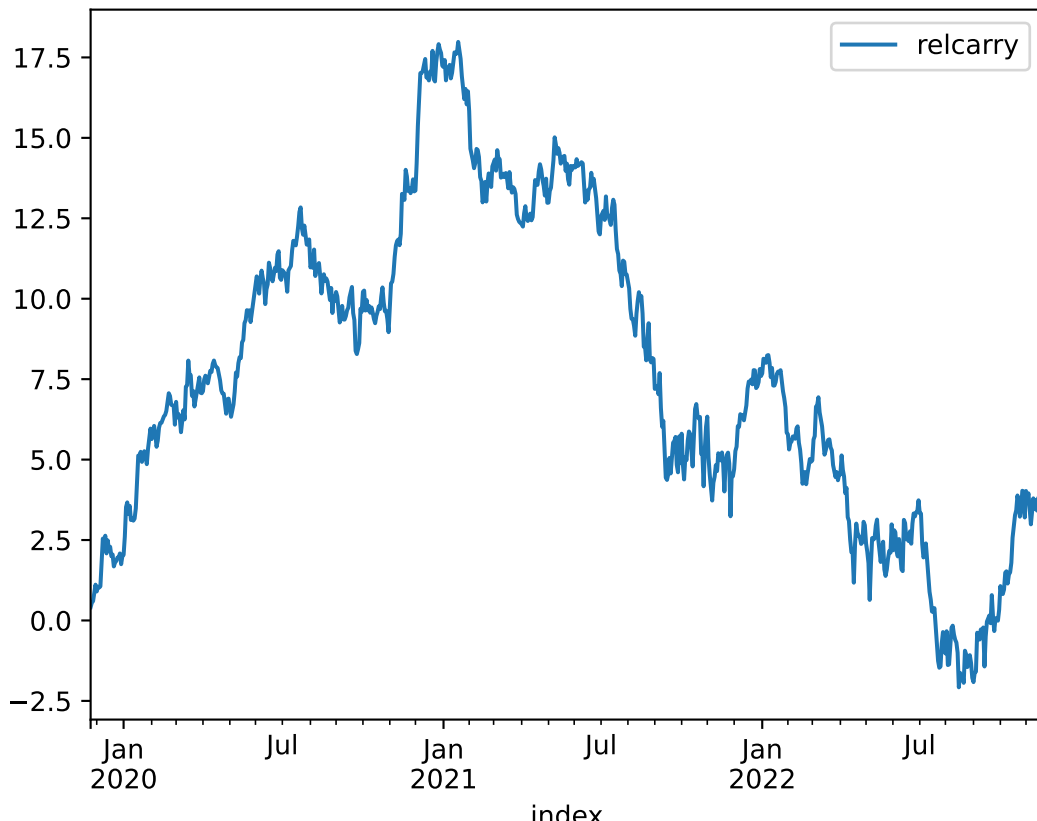
Total Trading Rule P&L for period 'YTD'  
ann. mean {'relcarry': -5.751}  
ann. std {'relcarry': 7.184}  
ann. SR {'relcarry': -0.8}



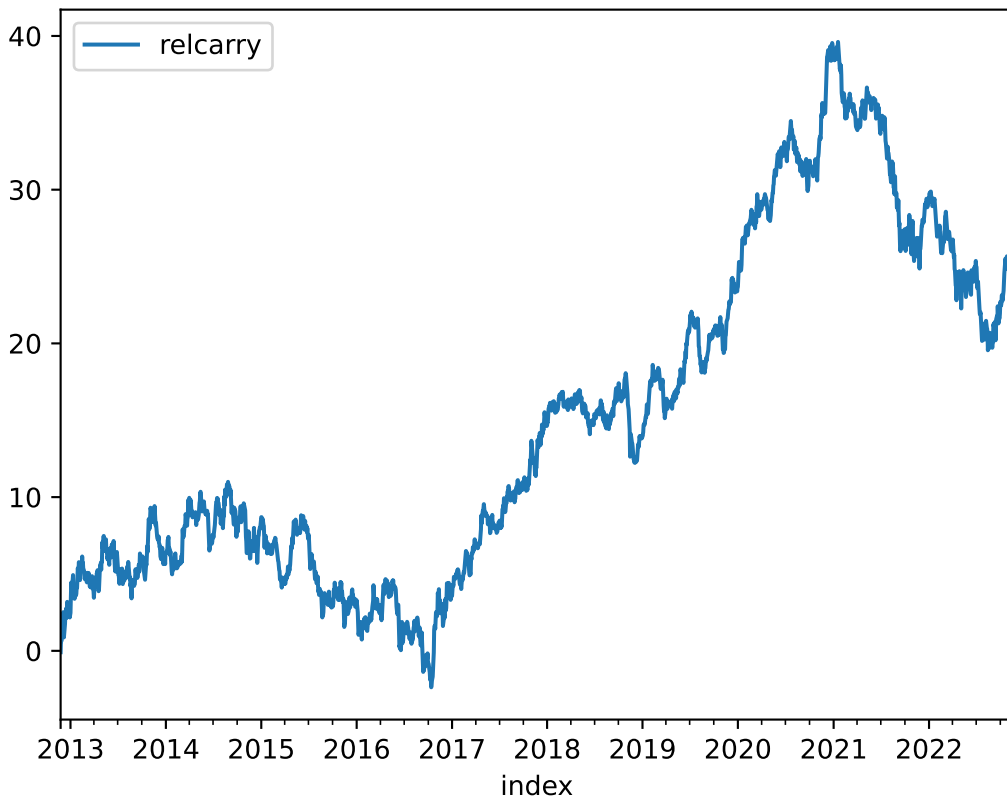
Total Trading Rule P&L for period '1Y'  
ann. mean {'relcarry': -2.407}  
ann. std {'relcarry': 7.257}  
ann. SR {'relcarry': -0.33}



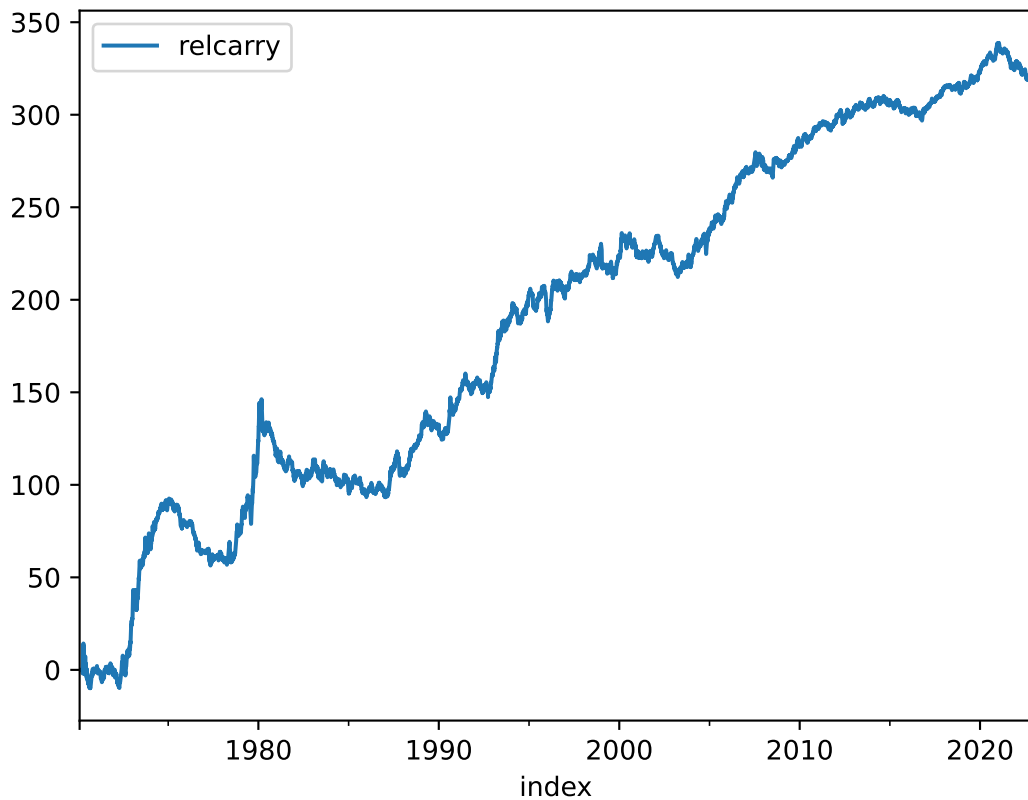
Total Trading Rule P&L for period '3Y'  
ann. mean {'relcarry': 0.789}  
ann. std {'relcarry': 6.803}  
ann. SR {'relcarry': 0.12}



Total Trading Rule P&L for period '10Y'  
ann. mean {'relcarry': 2.361}  
ann. std {'relcarry': 6.057}  
ann. SR {'relcarry': 0.39}

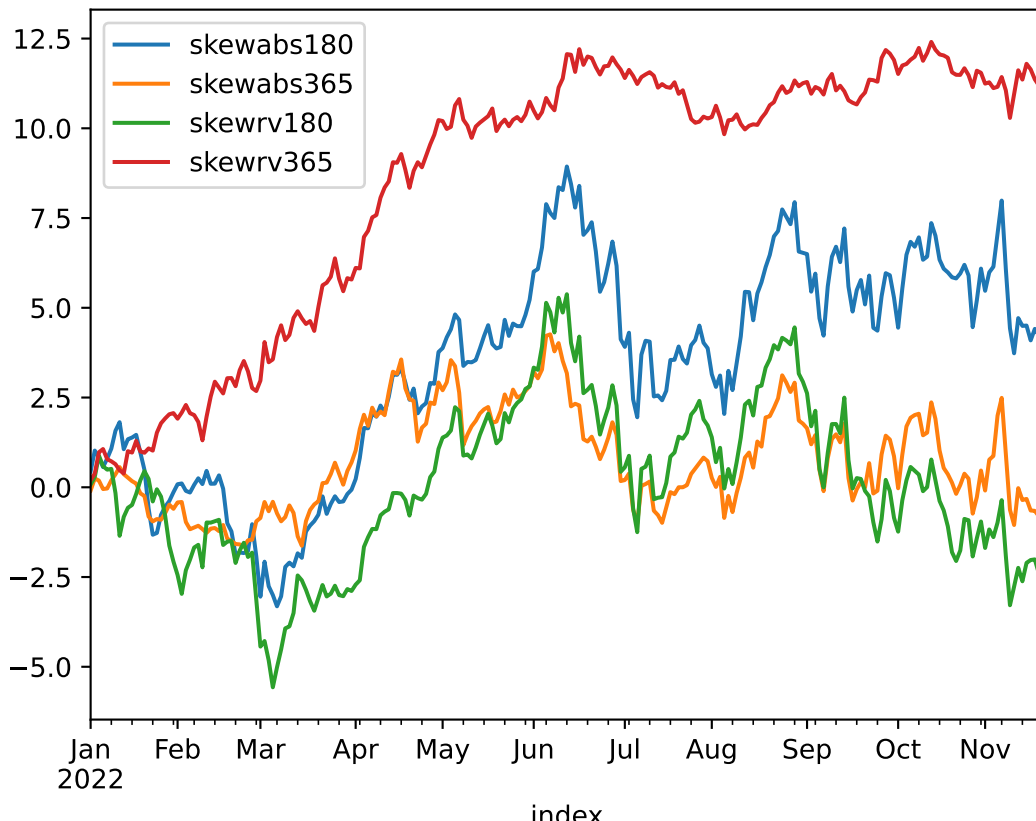


Total Trading Rule P&L for period '99Y'  
ann. mean {'relcarry': 6.007}  
ann. std {'relcarry': 9.563}  
ann. SR {'relcarry': 0.63}

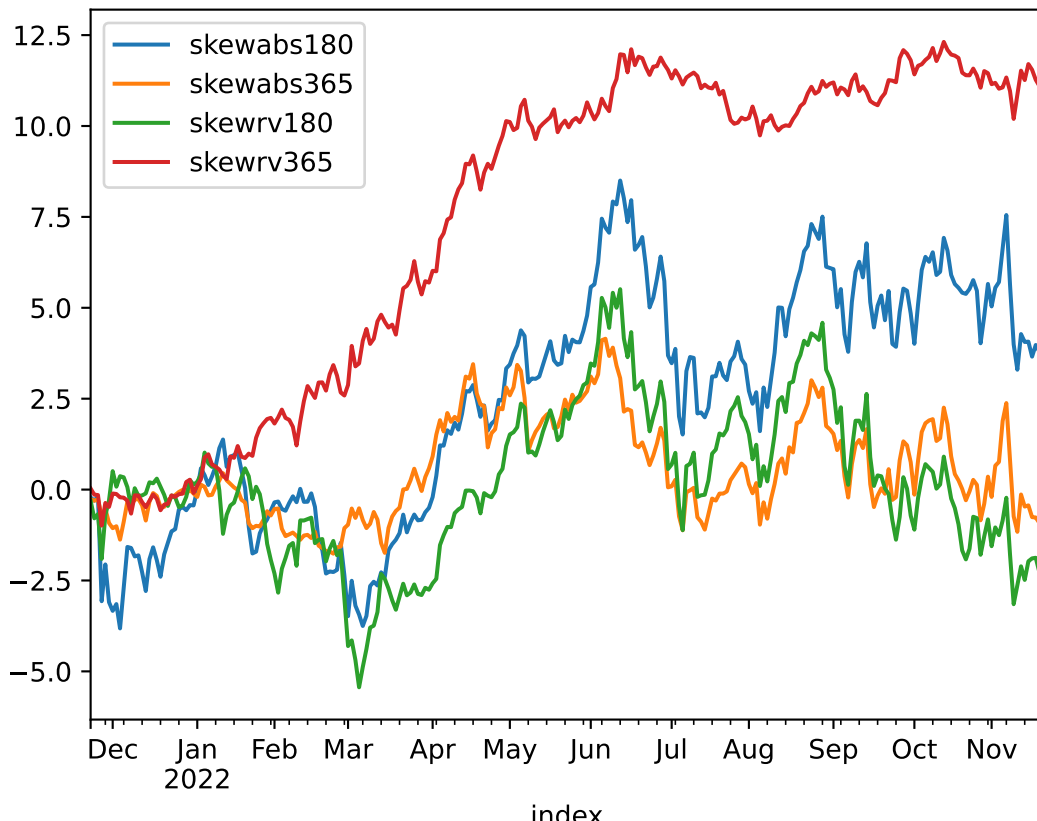




Total Trading Rule P&L for period 'YTD'  
ann. mean {'skewabs180': 5.355, 'skewabs365': -0.365, 'skewrv180': -2.044, 'skewrv365': 12.387}  
ann. std {'skewabs180': 10.087, 'skewabs365': 7.734, 'skewrv180': 9.453, 'skewrv365': 4.884}  
ann. SR {'skewabs180': 0.53, 'skewabs365': -0.05, 'skewrv180': -0.22, 'skewrv365': 2.54}



Total Trading Rule P&L for period '1Y'  
ann. mean {'skewabs180': 4.329, 'skewabs365': -0.434, 'skewrv180': -1.684, 'skewrv365': 10.914}  
ann. std {'skewabs180': 10.314, 'skewabs365': 7.42, 'skewrv180': 9.226, 'skewrv365': 4.843}  
ann. SR {'skewabs180': 0.42, 'skewabs365': -0.06, 'skewrv180': -0.18, 'skewrv365': 2.25}

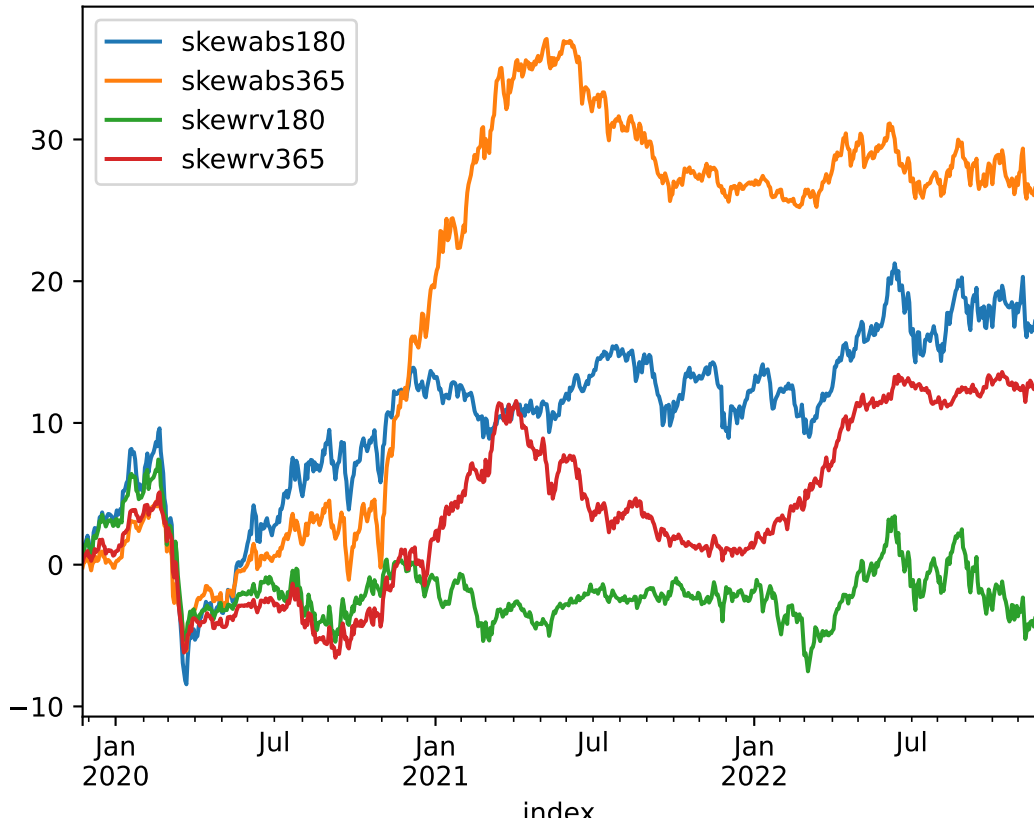


Total Trading Rule P&L for period '3Y'

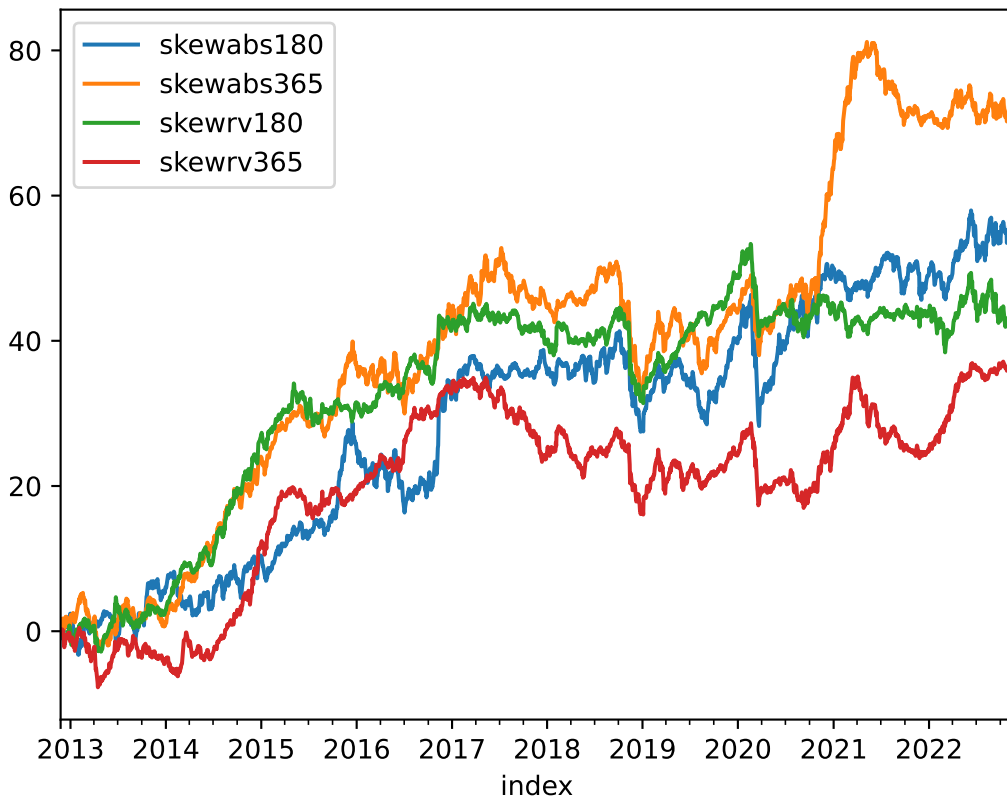
ann. mean {'skewabs180': 5.624, 'skewabs365': 8.7, 'skewrv180': -1.245, 'skewrv365': 4.054}

ann. std {'skewabs180': 9.596, 'skewabs365': 8.659, 'skewrv180': 7.758, 'skewrv365': 6.559}

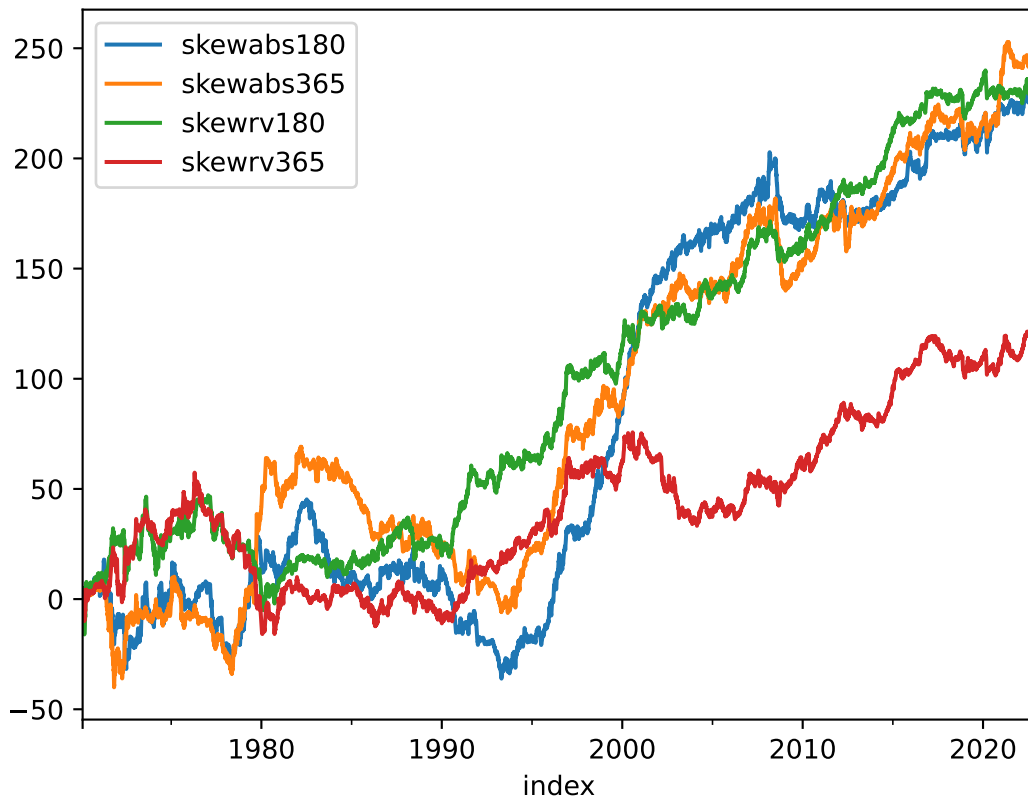
ann. SR {'skewabs180': 0.59, 'skewabs365': 1.0, 'skewrv180': -0.16, 'skewrv365': 0.62}



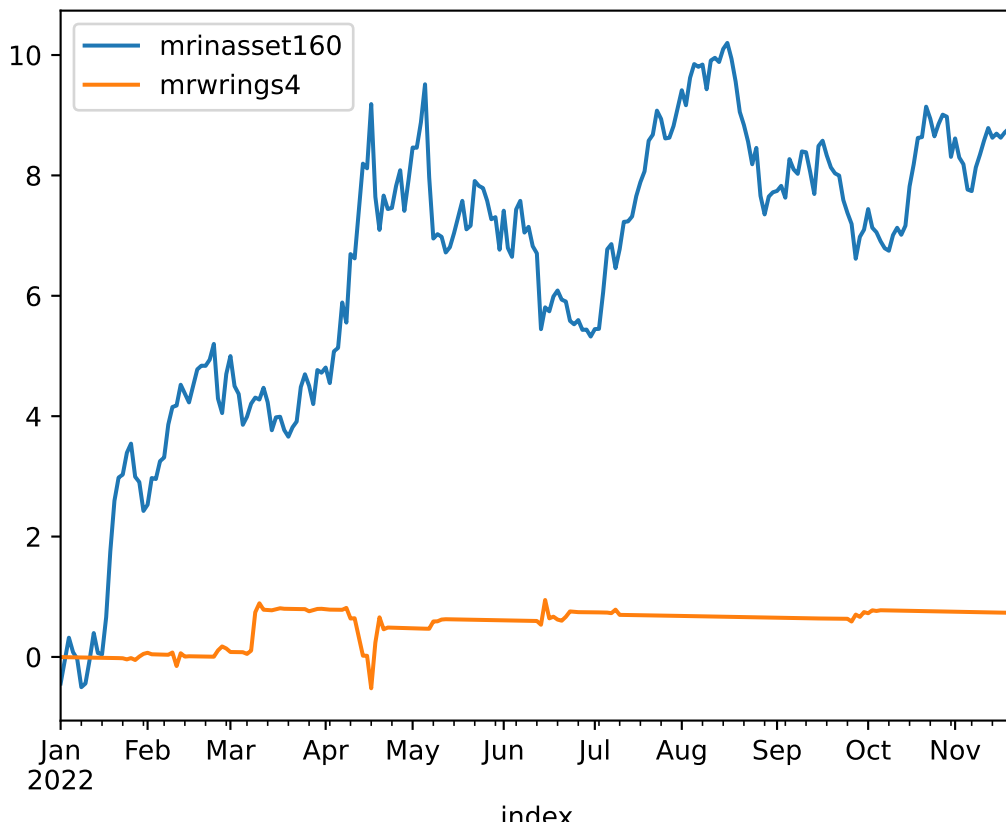
Total Trading Rule P&L for period '10Y'  
ann. mean {'skewabs180': 5.289, 'skewabs365': 6.934, 'skewrv180': 4.137, 'skewrv365': 3.526}  
ann. std {'skewabs180': 8.075, 'skewabs365': 7.984, 'skewrv180': 6.572, 'skewrv365': 6.19}  
ann. SR {'skewabs180': 0.65, 'skewabs365': 0.87, 'skewrv180': 0.63, 'skewrv365': 0.57}



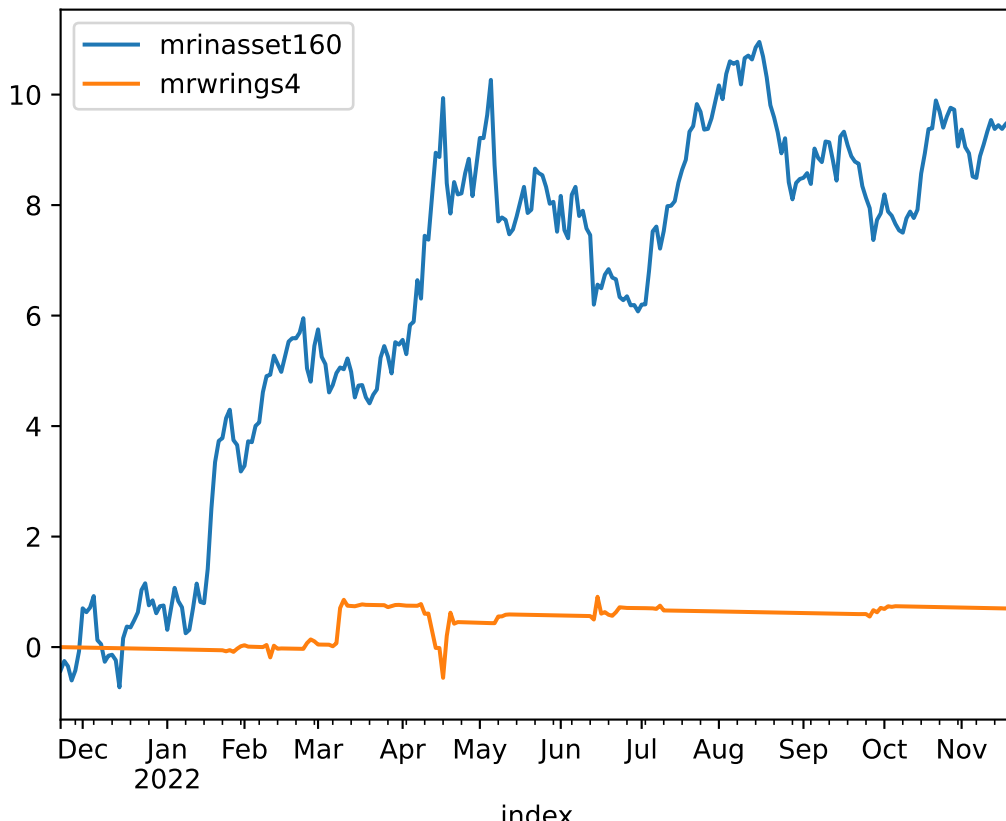
Total Trading Rule P&L for period '99Y'  
ann. mean {'skewabs180': 4.242, 'skewabs365': 4.504, 'skewrv180': 4.251, 'skewrv365': 2.237}  
ann. std {'skewabs180': 10.796, 'skewabs365': 10.3, 'skewrv180': 9.31, 'skewrv365': 8.608}  
ann. SR {'skewabs180': 0.39, 'skewabs365': 0.44, 'skewrv180': 0.46, 'skewrv365': 0.26}



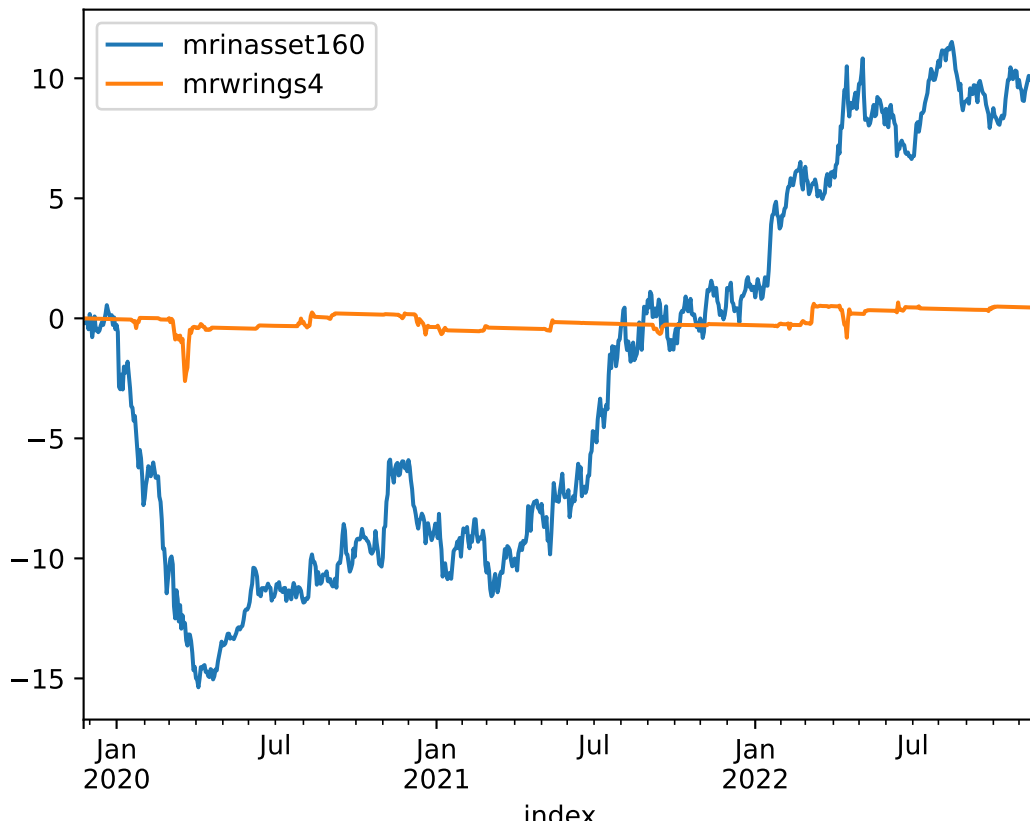
Total Trading Rule P&L for period 'YTD'  
ann. mean {'mriasset160': 9.532, 'mrwrings4': 0.811}  
ann. std {'mriasset160': 6.385, 'mrwrings4': 1.572}  
ann. SR {'mriasset160': 1.49, 'mrwrings4': 0.52}



Total Trading Rule P&L for period '1Y'  
ann. mean {'mrinasset160': 9.209, 'mrwrings4': 0.685}  
ann. std {'mrinasset160': 6.289, 'mrwrings4': 1.481}  
ann. SR {'mrinasset160': 1.46, 'mrwrings4': 0.46}

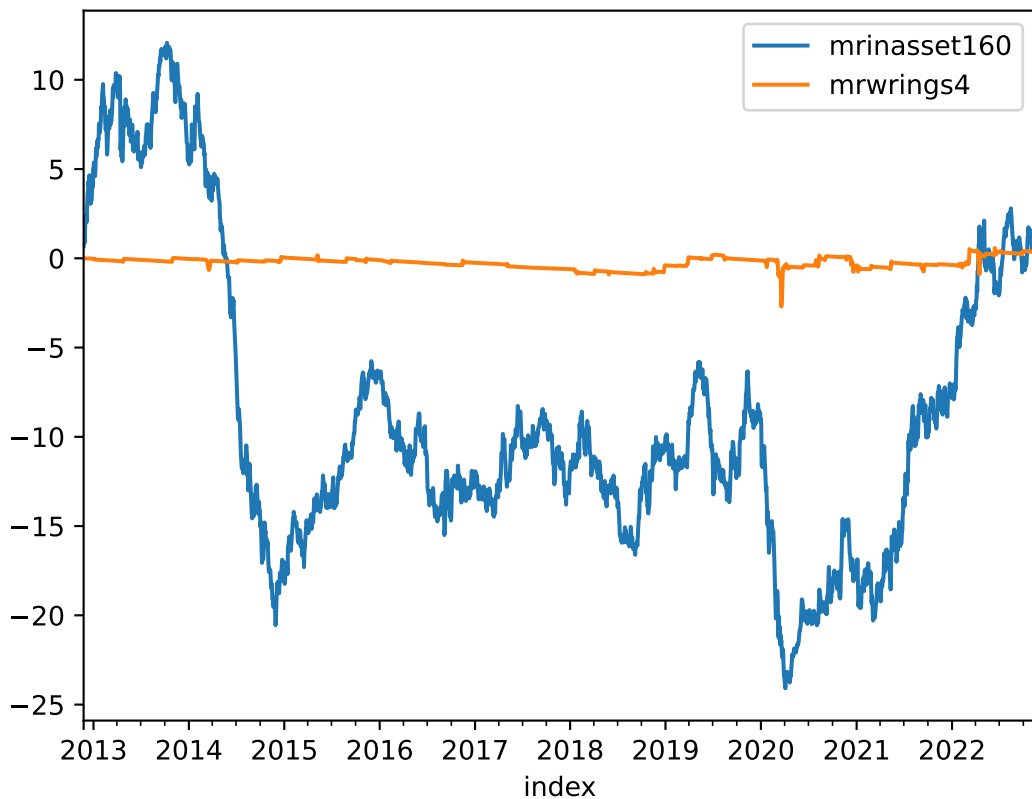


Total Trading Rule P&L for period '3Y'  
ann. mean {'mrinasset160': 3.25, 'mrwrings4': 0.146}  
ann. std {'mrinasset160': 7.094, 'mrwrings4': 1.537}  
ann. SR {'mrinasset160': 0.46, 'mrwrings4': 0.1}





Total Trading Rule P&L for period '10Y'  
ann. mean {'mrinasset160': 0.118, 'mrwrings4': 0.035}  
ann. std {'mrinasset160': 6.663, 'mrwrings4': 0.897}  
ann. SR {'mrinasset160': 0.02, 'mrwrings4': 0.04}



Total Trading Rule P&L for period '99Y'  
ann. mean {'mrinasset160': -3.387, 'mrwrings4': -1.176}  
ann. std {'mrinasset160': 10.93, 'mrwrings4': 2.633}  
ann. SR {'mrinasset160': -0.31, 'mrwrings4': -0.45}

