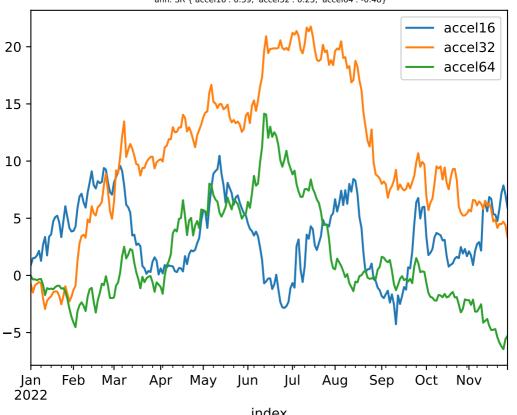
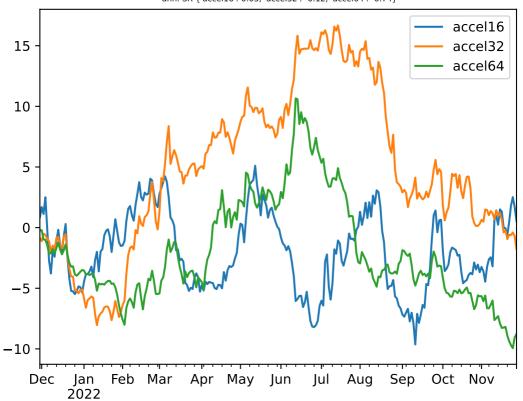
Total Trading Rule P&L for period 'YTD' ann. mean {icacel16': 6.406, 'accel32': 3.631, 'accel64': -5.732} ann. std {'accel16': 16.285, 'accel32': 14.287, 'accel64': 12.005} ann. SR {'accel16': 0.39, 'accel32': 0.25, 'accel64': -0.48}

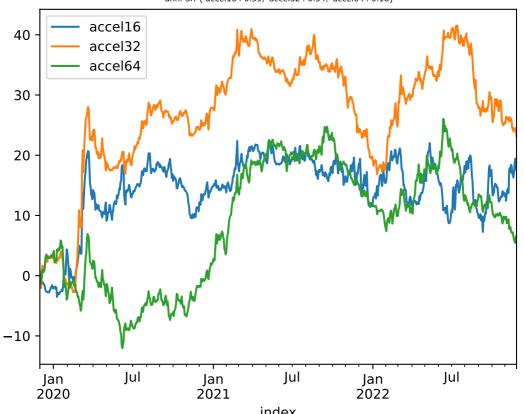


Total Trading Rule P&L for period '1Y' ann. mean {'accel16': 0.538, 'accel32': -1.729, 'accel64': -8.638} ann. std {'accel16': 16.799, 'accel32': 14.011, 'accel64': 11.627} ann. SR {'accel16': 0.03, 'accel32': -0.12, 'accel64': -0.74}

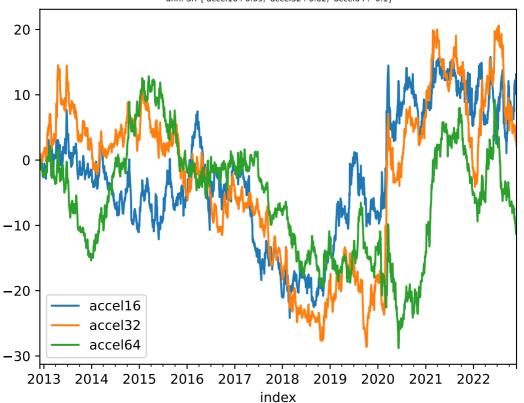


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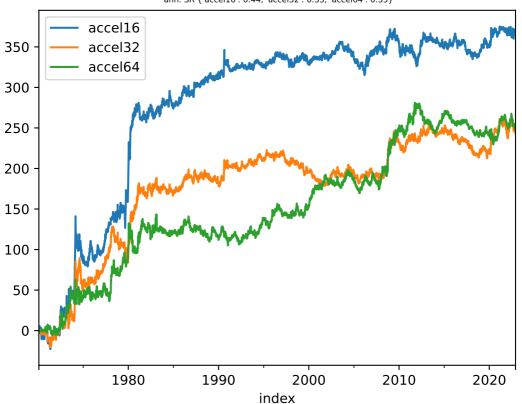
Total Trading Rule P&L for period '3Y' ann. mean {'accel16': 5.721, 'accel32': 7.58, 'accel64': 2.167} ann. std {'accel16': 14.767, 'accel32': 14.126, 'accel64': 11.804} ann. SR {'accel16': 0.39, 'accel32': 0.54, 'accel64': 0.18}



Total Trading Rule P&L for period '10Y'
ann. mean {'accel16': 1.104, 'accel32': 0.215, 'accel64': -0.998}
ann. std {'accel16': 1.1.86, 'accel32': 11.091, 'accel64': 9.575}
ann. SR {'accel16': 0.09, 'accel32': 0.02, 'accel64': -0.1}

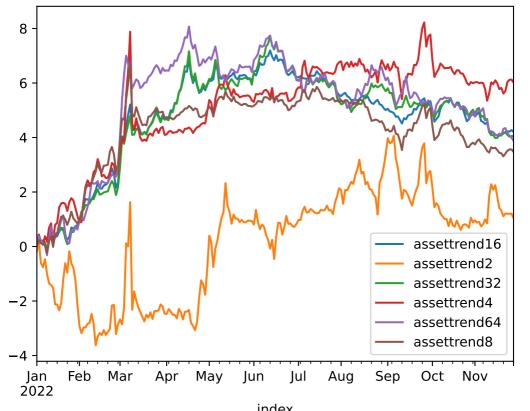


Total Trading Rule P&L for period '99Y' ann. mean {'accel16': 6.879, 'accel32': 4.521, 'accel64': 4.611} ann. std {'accel16': 15.731, 'accel32': 13.793, 'accel64': 13.336} ann. SR {'accel16': 0.44, 'accel32': 0.33, 'accel64': 0.35}



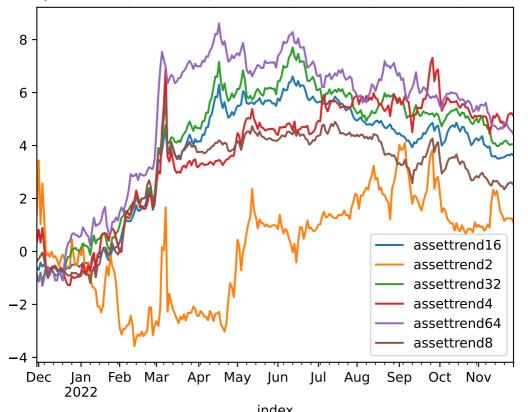
Total Trading Rule P&L for period 'YTD'

ann. mean { 'assettrend16': 4.562, 'assettrend2': 1.135, 'assettrend32': 4.396, 'assettrend4': 6.531, 'assettrend64': 4.211, 'assettrend8': 3.751, 'ann. std ('assettrend16': 3.151, 'assettrend2': 7.997, 'assettrend32': 3.474, 'assettrend4': 5.979, 'assettrend64': 4.102, 'assettrend8': 3.912} ann. SR { 'assettrend16': 1.45, 'assettrend2': 0.14, 'assettrend32': 1.27, 'assettrend4': 1.09, 'assettrend64': 1.03, 'assettrend8': 0.96}

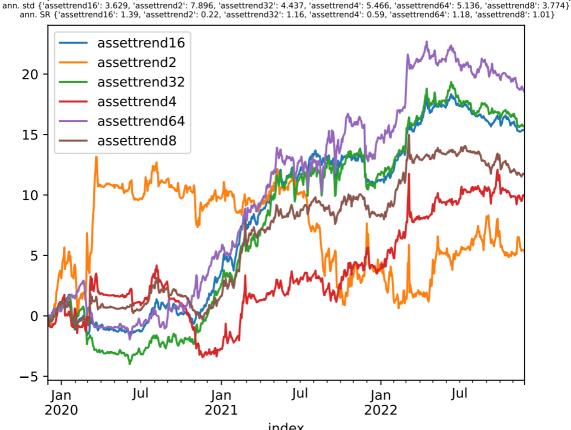


Total Trading Rule P&L for period '1Y'

ann. mean { 'assettrend16': 3.567, 'assettrend2': 1.072, 'assettrend32': 3.986, 'assettrend4': 5.035, 'assettrend64': 4.352, 'assettrend8': 2.475} ann. std { 'assettrend16': 3.102, 'assettrend2': 8.839, 'assettrend32': 3.577, 'assettrend4': 5.904, 'assettrend64': 4.224, 'assettrend8': 3.18} ann. SR { 'assettrend16': 1.15, 'assettrend2': 0.12, 'assettrend32': 1.11, 'assettrend4': 0.85, 'assettrend64': 1.03, 'assettrend8': 0.65}

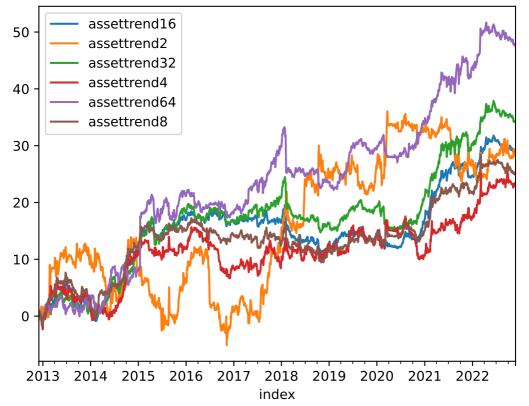


Total Trading Rule P&L for period '3Y' ann. mean {'assettrend16': 5.032, 'assettrend2': 1.737, 'assettrend32': 5.143, 'assettrend4': 3.243, 'assettrend64': 6.068, 'assettrend8': 3.83}



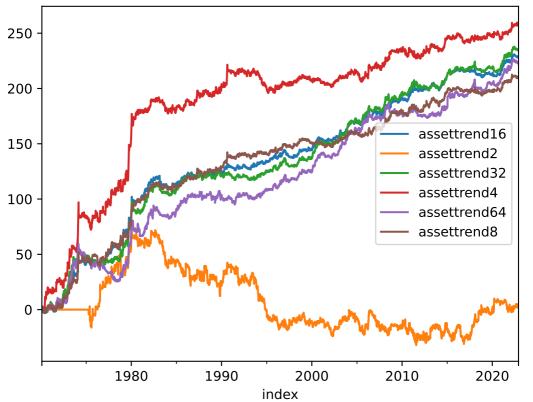
Total Trading Rule P&L for period '10Y'

ann. mean { 'assettrend16': 2.828, 'assettrend2': 2.768, 'assettrend32': 3.363, 'assettrend4': 2.286, 'assettrend64': 4.664, 'assettrend8': 2.466} ann. std { 'assettrend6': 3.283, 'assettrend2': 8.46, 'assettrend32': 3.76, 'assettrend4': 5.046, 'assettrend64': 5.307, 'assettrend8': 3.69} ann. SR { 'assettrend16': 0.86, 'assettrend2': 0.33, 'assettrend2': 0.89, 'assettrend4': 0.45, 'assettrend64': 0.88, 'assettrend8': 0.69}



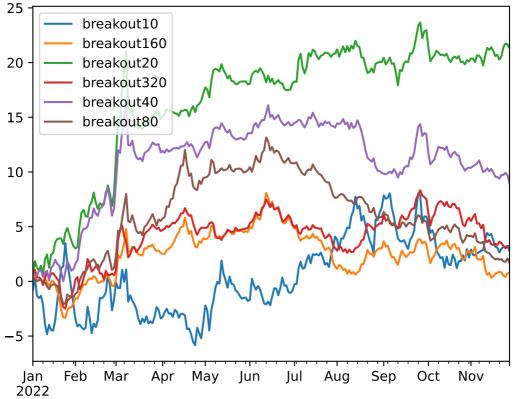
Total Trading Rule P&L for period '99Y'

ann. mean {'assettrend16': 4.234, 'assettrend2': 0.041, 'assettrend32': 4.35, 'assettrend4': 4.784, 'assettrend64': 4.13, 'assettrend8': 3.888} ann. std {'assettrend16': 4.665, 'assettrend2': 10.058, 'assettrend32': 4.9, 'assettrend4': 7.356, 'assettrend64': 5.474, 'assettrend8': 5.041} ann. SR {'assettrend16': 0.91, 'assettrend2': 0.0, 'assettrend32': 0.89, 'assettrend4': 0.65, 'assettrend64': 0.75, 'assettrend8': 0.77}



Total Trading Rule P&L for period 'YTD'

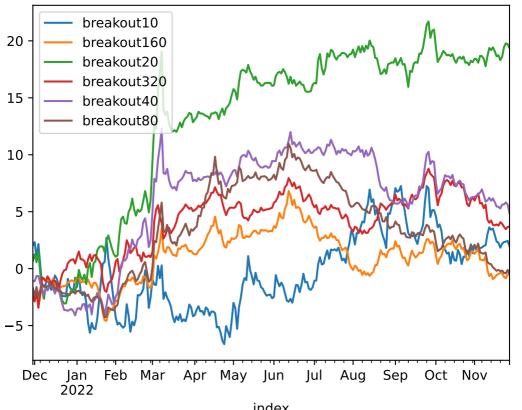
ann. mean {'breakout10': 3.004, 'breakout160': 0.791, 'breakout20': 23.139, 'breakout320': 3.527, 'breakout40': 9.723, 'breakout80': 1.837} ann. std {'breakout10': 14.058, 'breakout160': 7.373, 'breakout20': 12.447, 'breakout320': 7.665, 'breakout40': 9.86, 'breakout80': 8.095} ann. SR {'breakout10': 0.21, 'breakout160': 0.11, 'breakout20': 1.86, 'breakout320': 0.46, 'breakout40': 0.99, 'breakout80': 0.23}



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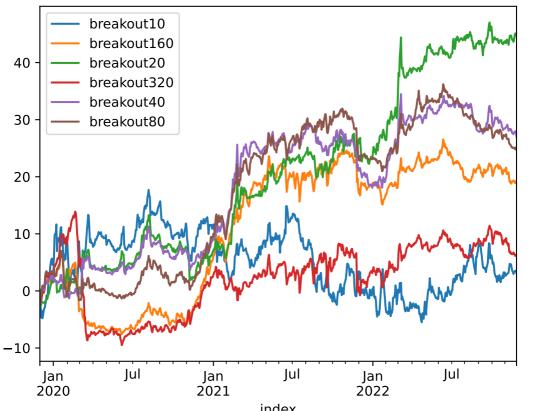
Total Trading Rule P&L for period '1Y'

ann. mean {'breakout10': 1.939, 'breakout160': -0.514, 'breakout20': 19.069, 'breakout320': 3.645, 'breakout40': 4.783, 'breakout80': -0.498} ann. std {'breakout10': 14.146, 'breakout160': 7.684, 'breakout20': 12.363, 'breakout320': 8.245, 'breakout40': 9.651, 'breakout80': 8.069} ann. SR {'breakout10': 0.14, 'breakout160': -0.07, 'breakout20': 1.54, 'breakout320': 0.44, 'breakout40': 0.5, 'breakout80': -0.06}



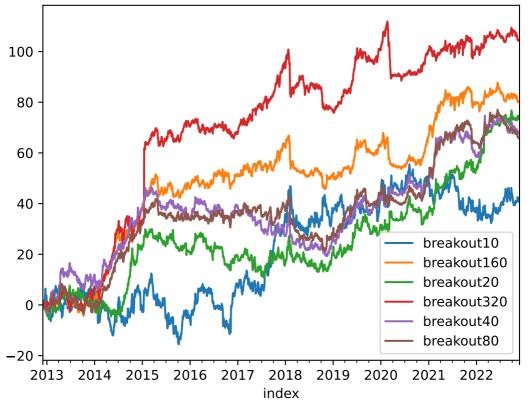
Total Trading Rule P&L for period '3Y'

ann. mean {'breakout10': 1.014, 'breakout160': 6.29, 'breakout20': 14.651, 'breakout320': 2.085, 'breakout40': 8.86, 'breakout80': 8.112} ann. std {'breakout10': 15.245, 'breakout160': 9.832, 'breakout20': 11.538, 'breakout320': 10.871, 'breakout40': 10.051, 'breakout80': 9.731} ann. SR {'breakout10': 0.07, 'breakout160': 0.64, 'breakout20': 1.27, 'breakout320': 0.19, 'breakout40': 0.88, 'breakout80': 0.83}



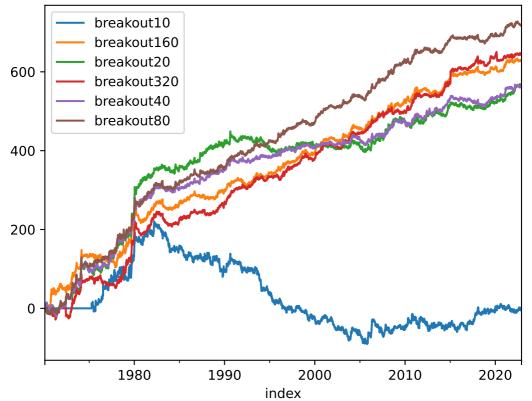
Total Trading Rule P&L for period '10Y'

ann. mean {'breakout10': 4.016, 'breakout160': 7.893, 'breakout20': 7.311, 'breakout320': 10.247, 'breakout40': 6.606, 'breakout80': 6.443} ann. std {'breakout10': 15.77, 'breakout160': 9.147, 'breakout20': 11.211, 'breakout320': 13.347, 'breakout40': 9.836, 'breakout80': 9.019} ann. SR {'breakout10': 0.25, 'breakout160': 0.86, 'breakout20': 0.65, 'breakout320': 0.77, 'breakout40': 0.67, 'breakout80': 0.71}



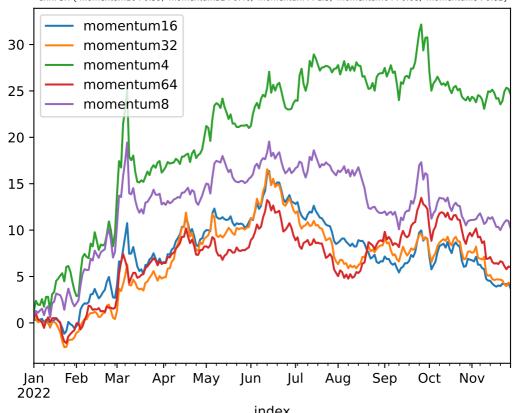
Total Trading Rule P&L for period '99Y'

ann. mean {'breakout10': -0.06, 'breakout160': 11.643, 'breakout20': 10.524, 'breakout320': 11.941, 'breakout40': 10.406, 'breakout80': 13.307} ann. std {'breakout10': 20.852, 'breakout160': 12.508, 'breakout20': 16.115, 'breakout320': 13.061, 'breakout40': 13.244, 'breakout80': 12.767} ann. SR {'breakout10': -0.0, 'breakout160': 0.93, 'breakout20': 0.65, 'breakout320': 0.91, 'breakout40': 0.79, 'breakout80': 1.04}



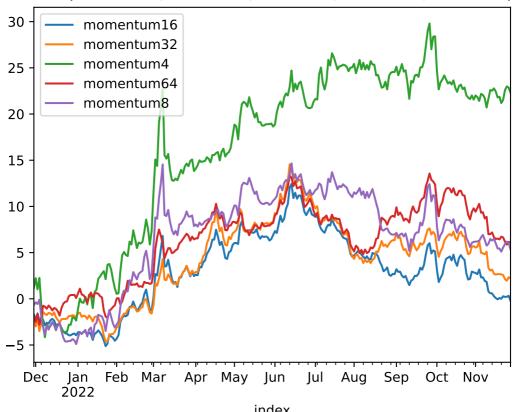
Total Trading Rule P&L for period 'YTD'

ann. mean {'momentum16': 4.051, 'momentum32': 4.583, 'momentum4': 26.745, 'momentum64': 6.522, 'momentum8': 11.091} ann. std {'momentum16': 10.379, 'momentum32': 10.041, 'momentum4': 17.824, 'momentum64': 9.645, 'momentum8': 13.606} ann. SR {'momentum16': 0.39, 'momentum32': 0.46, 'momentum4': 1.5, 'momentum64': 0.68, 'momentum8': 0.82}



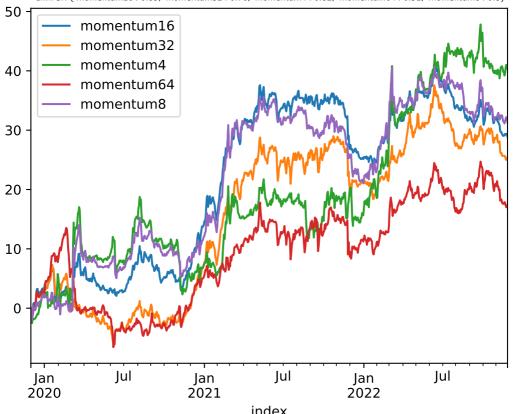
Total Trading Rule P&L for period '1Y'

ann. mean {'momentum16': -0.216, 'momentum32': 2.179, 'momentum4': 21.953, 'momentum64': 6.003, 'momentum8': 5.243} ann. std {'momentum16': 10.165, 'momentum32': 10.113, 'momentum4': 17.708, 'momentum64': 9.707, 'momentum8': 13.348} ann. SR {'momentum16': -0.02, 'momentum32': 0.22, 'momentum4': 1.24, 'momentum64': 0.62, 'momentum8': 0.39}



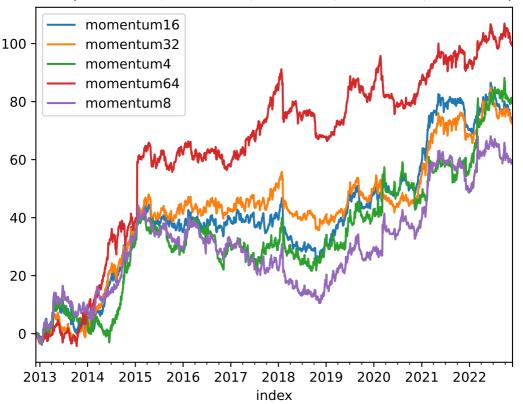
Total Trading Rule P&L for period '3Y'

ann. mean {'momentum16': 9.461, 'momentum32': 8.275, 'momentum4': 13.213, 'momentum64': 5.651, 'momentum8': 10.272} ann. std {'momentum16': 11.101, 'momentum32': 10.945, 'momentum4': 16.077, 'momentum64': 11.063, 'momentum8': 12.791} ann. SR {'momentum16': 0.85, 'momentum32': 0.76, 'momentum4': 0.82, 'momentum64': 0.51, 'momentum8': 0.8}



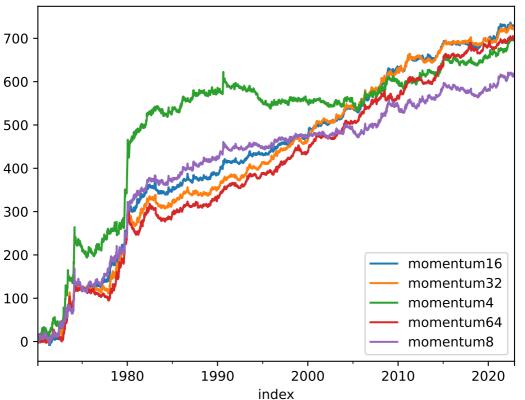
Total Trading Rule P&L for period '10Y'

ann. mean {'momentum16': 7.256, 'momentum32': 7.124, momentum4': 7.923, 'momentum64': 9.769, 'momentum8': 5.771} ann. std {'momentum16': 9.952, 'momentum32': 9.51, 'momentum4': 13.678, 'momentum64': 12.01, 'momentum8': 1.318} ann. SR {'momentum66': 0.73, 'momentum32': 0.75, 'momentum4': 0.58, 'momentum64': 0.81, 'momentum8': 0.51}



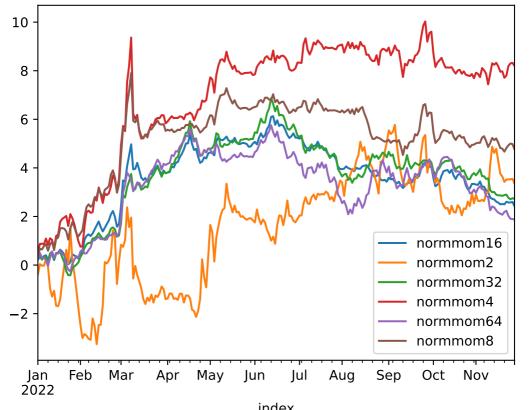
Total Trading Rule P&L for period '99Y'

ann. mean {'momentum16': 13.451, 'momentum32': 13.369, 'momentum4': 12.933, 'momentum64': 12.965, 'momentum8': 11.368} ann. std {'momentum16': 14.235, 'momentum32': 13.867, 'momentum4': 20.093, 'momentum64': 13.501, 'momentum8': 15.885} ann. SR {'momentum16': 0.94, 'momentum32': 0.96, 'momentum4': 0.64, 'momentum64': 0.96, 'momentum8': 0.72}



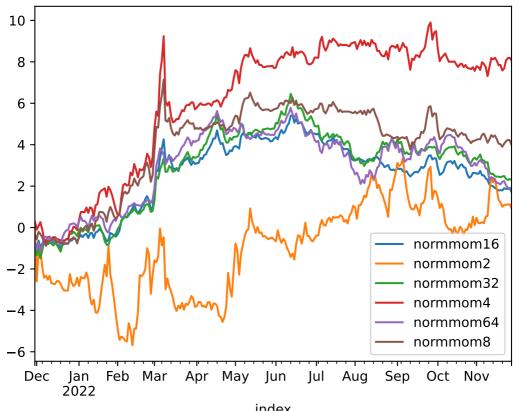
Total Trading Rule P&L for period 'YTD'

ann. mean {'normmom16': 2.629, 'normmom2': 3.641, 'normmom32': 2.951, [']normmom4': 8.897, 'normmom64': 2.033, 'normmom8': 5.167} ann. std {'normmom16': 3.219, 'normmom2': 8.337, 'normmom32': 3.292, 'normmom4': 6.153, 'normmom64': 3.525, 'normmom8': 4.395} ann. SR {'normmom16': 0.82, 'normmom2': 0.44, 'normmom32': 0.9, 'normmom4': 1.45, 'normmom64': 0.58, 'normmom8': 1.18}



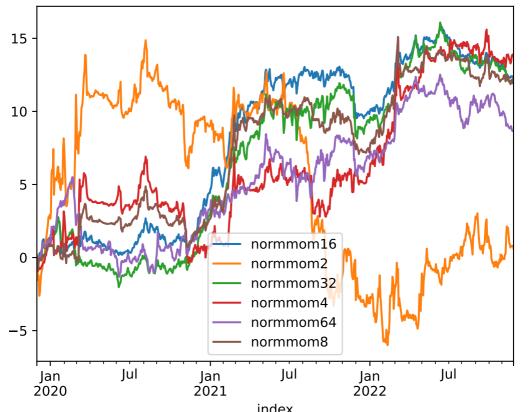
Total Trading Rule P&L for period '1Y'

ann. mean {'normmom16': 1.689, 'normmom2': 0.917, 'normmom32': 2.271, 'normmom4': 7.953, 'normmom64': 1.861, 'normmom8': 3.934} ann. std {'normmom16': 3.223, 'normmom2': 8.644, 'normmom32': 3.447, 'normmom4': 5.945, 'normmom64': 3.585, 'normmom8': 4.263} ann. SR {'normmom16': 0.52, 'normmom2': 0.11, 'normmom32': 0.66, 'normmom4': 1.34, 'normmom64': 0.52, 'normmom8': 0.92}



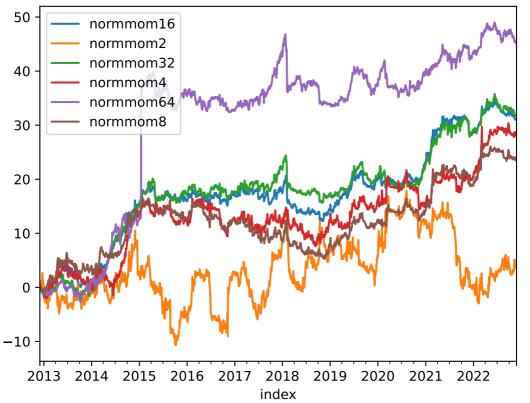
Total Trading Rule P&L for period '3Y'

ann. mean {'normmom16': 4.01, 'normmom2': 0.202, 'normmom32': 3.912, 'normmom4': 4.515, 'normmom64': 2.83, 'normmom8': 3.919} ann. std {'normmom16': 3.744, 'normmom2': 8.967, 'normmom32': 4.067, 'normmom4': 5.76, 'normmom64': 4.382, 'normmom8': 4.266} ann. SR {'normmom16': 1.07, 'normmom2': 0.02, 'normmom32': 0.96, 'normmom4': 0.76, 'normmom64': 0.65, 'normmom8': 0.92}



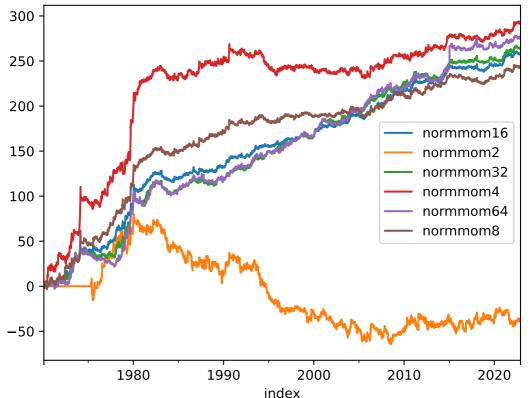
Total Trading Rule P&L for period '10Y'

ann. mean {'normmom16': 3.04, 'normmom2': 0.355, 'normmom32': 3.106, 'normmom4': 2.805, 'normmom64': 4.43, 'normmom8': 2.314} ann. std {'normmom16': 3.58, 'normmom2': 9.109, 'normmom32': 3.735, 'normmom4': 5.496, 'normmom64': 8.563, 'normmom8': 4.056} ann. SR {'normmom16': 0.85, 'normmom2': 0.04, 'normmom32': 0.83, 'normmom4': 0.51, 'normmom64': 0.52, 'normmom8': 0.57}



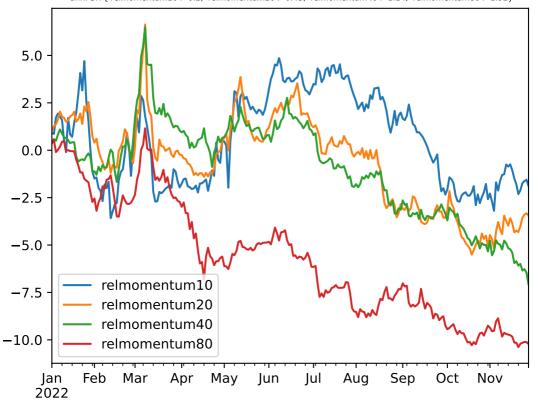
Total Trading Rule P&L for period '99Y'

ann. mean {'normmom16': 4.772, 'normmom2': -0.706, 'normmom32': 4.889, 'normmom4': 5.426, 'normmom64': 5.097, 'normmom8': 4.506} ann. std {'normmom16': 4.927, 'normmom2': 11.209, 'normmom32': 4.996, 'normmom4': 8.33, 'normmom64': 6.316, 'normmom8': 5.937} 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'

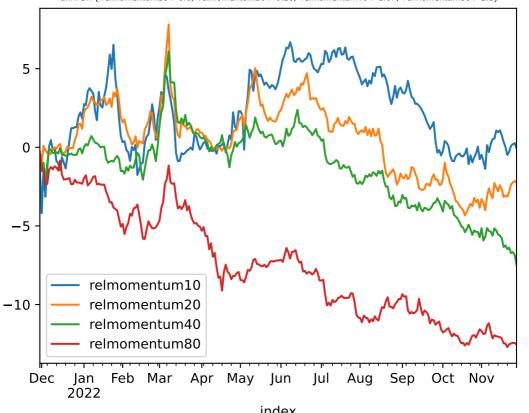
ann. mean {'relmomentum10': -2.037, 'relmomentum20': -3.726, 'relmomentum40': -7.672, 'relmomentum80': -11.083} ann. std {'relmomentum10': 1.0.342, 'relmomentum20': 8.677, 'relmomentum40': 6.739, 'relmomentum40': 5.773} ann. SR {'relmomentum10': -0.2, 'relmomentum20': -0.43, 'relmomentum40': -1.14, 'relmomentum80': -1.92}



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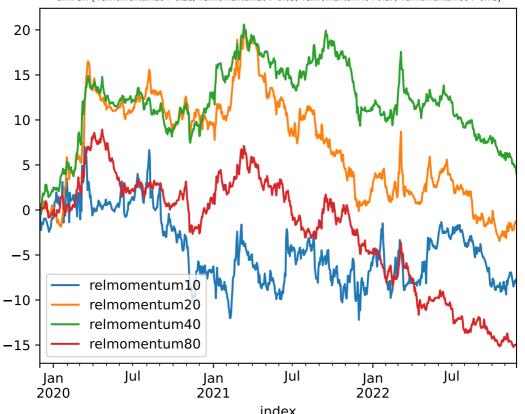
Total Trading Rule P&L for period '1Y'

ann. mean {'relmomentum10': -0.054, 'relmomentum20': -2.223, 'relmomentum40': -7.342, 'relmomentum80': -12.346} ann. std {'relmomentum10': 11.312, 'relmomentum20': 8.471, 'relmomentum40': 6.833, 'relmomentum80': 5.882} ann. SR {'relmomentum10': -0.0, 'relmomentum20': -0.26, 'relmomentum40': -1.07, 'relmomentum80': -2.1}



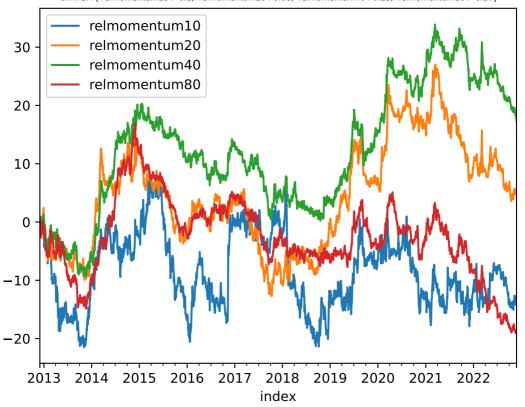
Total Trading Rule P&L for period '3Y'

ann. mean {'relmomentum10': -2.645, 'relmomentum20': -0.452, 'relmomentum40': 1.313, 'relmomentum80': -4.939} ann. std {'relmomentum10': 12.801, 'relmomentum20': 9.071, 'relmomentum40': 7.505, 'relmomentum80': 6.965} ann. SR {'relmomentum10': -0.21, 'relmomentum20': -0.05, 'relmomentum40': 0.17, 'relmomentum80': -0.71}



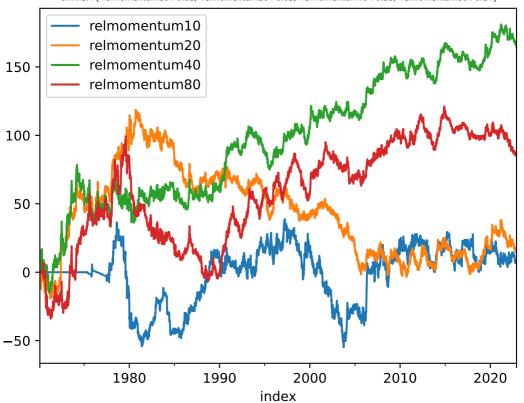
Total Trading Rule P&L for period '10Y'

ann. mean {'relmomentum10': -1.351, 'relmomentum20': 0.555, 'relmomentum40': 1.698, 'relmomentum80': -1.855} ann. std {'relmomentum10': 1.304, 'relmomentum20': 9.056, 'relmomentum40': 7.387, 'relmomentum80': 6.848} ann. SR {'relmomentum10': -0.1, 'relmomentum20': 0.06, 'relmomentum40': 0.23, 'relmomentum80': -0.27}



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

ann. mean {'relmomentum10': 0.146, 'relmomentum20': 0.313, 'relmomentum40': 3.055, 'relmomentum80': 1.585} ann. std {'relmomentum10': 13.332, 'relmomentum20': 11.533, 'relmomentum40': 10.803, 'relmomentum80': 11.07} ann. SR {'relmomentum10': 0.01, 'relmomentum20': 0.03, 'relmomentum40': 0.28, 'relmomentum80': 0.14}

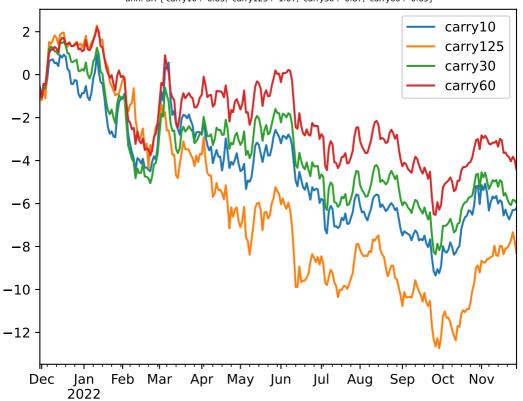


Total Trading Rule P&L for period 'YTD'
ann. mean {'carry10': -5.812, 'carry125': -10.42, 'carry30': -6.761, 'carry60': -5.98}
ann. std ('carry10': 7.286, 'carry125': 7.648, 'carry30': 6.824, 'carry60': 6.832}
ann. SR {'carry10': -0.8, 'carry125': -1.36, 'carry30': -0.99, 'carry60': -0.88}



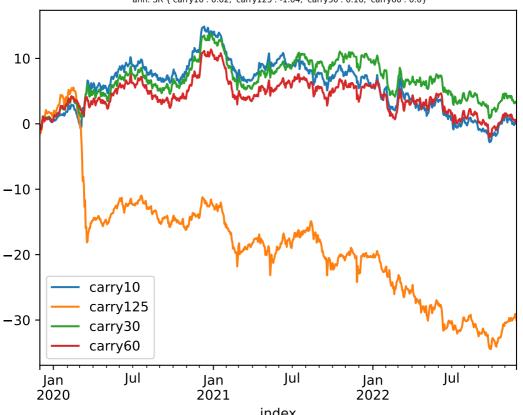
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Total Trading Rule P&L for period '1Y'
ann. mean {'carry10': -6.121, 'carry125': -8.194, 'carry30': -5.879, 'carry60': -4.359}
ann. std {'carry10': 7.164, 'carry125': 7.684, 'carry30': 6.757, 'carry60': 6.719}
ann. SR {'carry10': -0.85, 'carry125': -1.07, 'carry30': -0.87, 'carry60': -0.65}

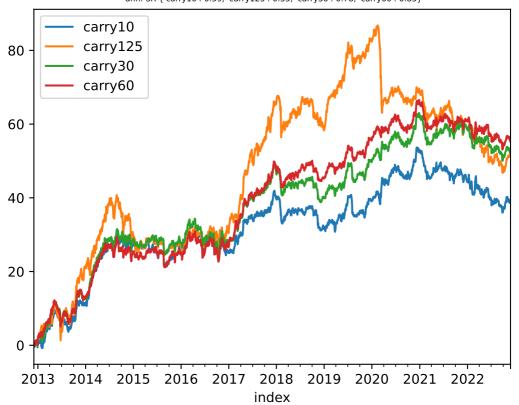


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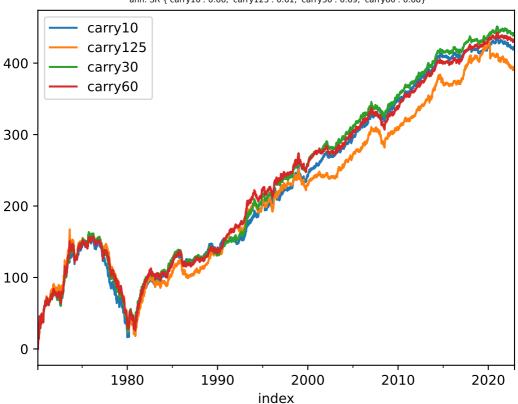
Total Trading Rule P&L for period '3Y'
ann. mean {'carry10': 0.103, 'carry125': -9.847, 'carry30': 1.056, 'carry60': 0.003}
ann. std {'carry10': 6.811, 'carry125': 9.454, 'carry30': 6.61, 'carry60': 6.55}
ann. SR {'carry10': 0.02, 'carry125': -1.04, 'carry30': 0.16, 'carry60': 0.0}



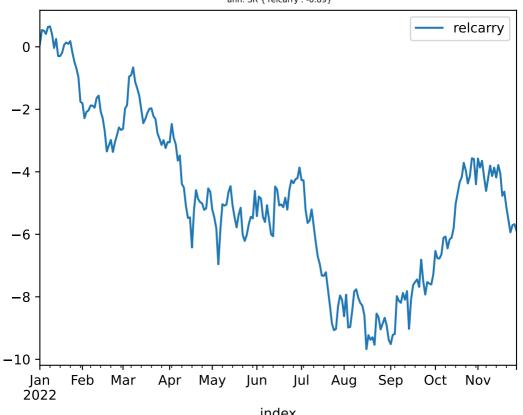
Total Trading Rule P&L for period '10Y' ann. mean {'carry10': 3.841, 'carry125': 5.025, 'carry30': 5.147, 'carry60': 5.42} ann. std {'carry10': 6.462, 'carry125': 9.127, 'carry30': 6.574, 'carry60': 6.536} ann. SR {'carry10': 0.59, 'carry125': 0.55, 'carry30': 0.78, 'carry60': 0.83}



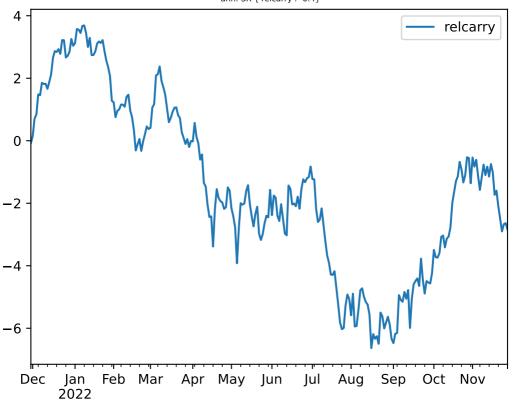
Total Trading Rule P&L for period '99Y' ann. mean {'carry10': 7.836, 'carry125': 7.329, 'carry30': 8.187, 'carry60': 8.015} ann. std {'carry10': 11.868, 'carry125': 12.107, 'carry30': 11.879, 'carry60': 11.829} ann. SR {'carry10': 0.66, 'carry125': 0.61, 'carry30': 0.69, 'carry60': 0.68}



Total Trading Rule P&L for period 'YTD' ann. mean {'relcarry': -6.376} ann. std {'relcarry': 7.133} ann. SR {'relcarry': -0.89}

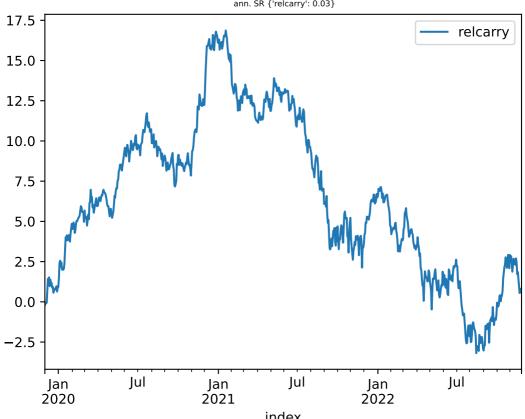


Total Trading Rule P&L for period '1Y' ann. mean {'relcarry': -2.796} ann. std {'relcarry': 6.959} ann. SR {'relcarry': -0.4}

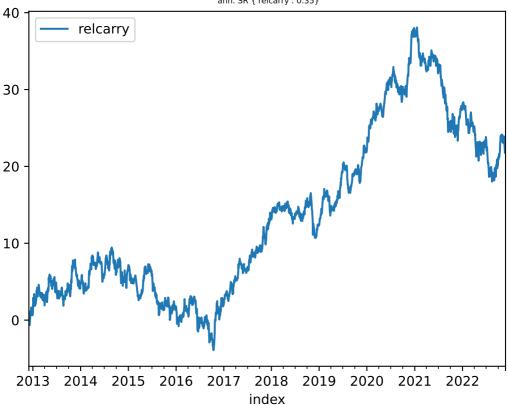


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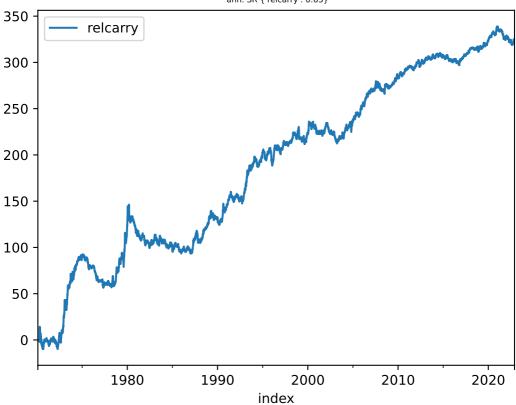
Total Trading Rule P&L for period '3Y' ann. mean {'relcarry': 0.199} ann. std {'relcarry': 6.804} ann. SR {'relcarry': 0.03}



Total Trading Rule P&L for period '10Y' ann. mean {'relcarry': 2.142} ann. std {'relcarry': 6.051} ann. SR {'relcarry': 0.35}



Total Trading Rule P&L for period '99Y' ann. mean {'relcarry': 5.993} ann. std {'relcarry': 9.562} ann. SR {'relcarry': 0.63}



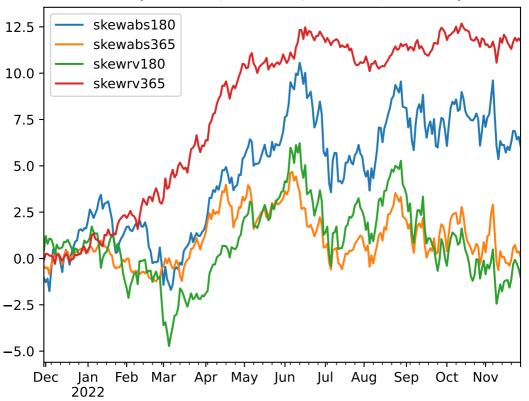
Total Trading Rule P&L for period 'YTD'

ann. mean {'skewabs180': 4.844, 'skewabs365': -0.332, 'skewrv180': -1.976, 'skewrv365': 12.43} ann. std {'skewabs180': 10.012, 'skewabs365': 7.691, 'skewrv180': 9.401, 'skewrv365': 4.862} ann. SR {'skewabs180': 0.48, 'skewabs365': -0.04, 'skewrv180': -0.21, 'skewrv365': 2.56}



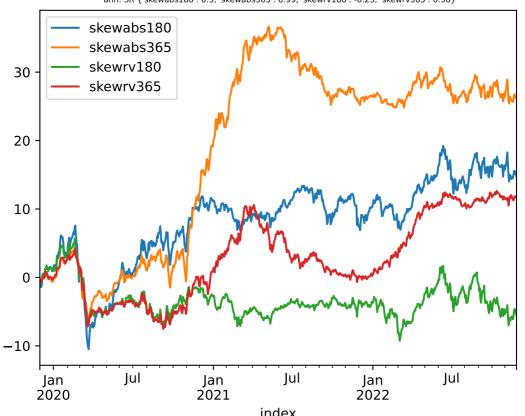
 $\label{thm:continuity} Total Trading Rule P&L for period '1Y' ann. mean {'skewabs180': 5.995, 'skewabs365': 0.106, 'skewrv180': -0.966, 'skewrv365': 11.552}$

ann. std {'skewabs180': 9.88, 'skewabs365': 7.434, 'skewrv180': 9.094, 'skewrv365': 4.75} ann. SR {'skewabs180': 0.61, 'skewabs365': 0.01, 'skewrv180': -0.11, 'skewrv365': 2.43}

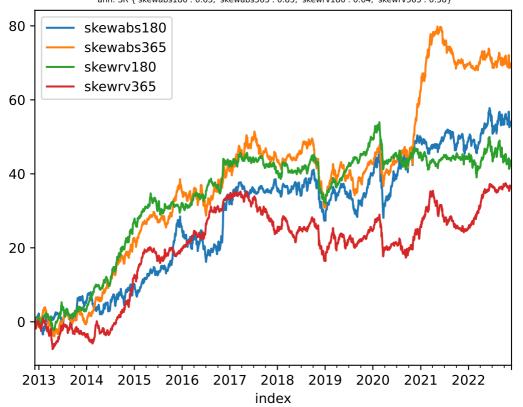


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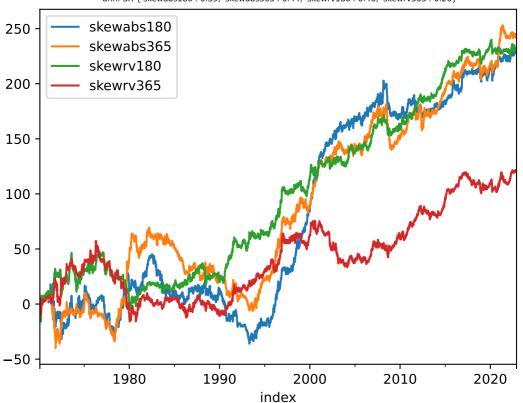
Total Trading Rule P&L for period '3Y' ann. mean {'skewabs180': 4.834, 'skewabs365': 8.57, 'skewrv180': -1.812, 'skewrv365': 3.829} ann. std {'skewabs180': 9.592, 'skewabs365': 8.666, 'skewrv180': 7.76, 'skewrv365': 6.561} ann. SR {'skewabs180': 0.5, 'skewabs365': 0.99, 'skewrv180': -0.23, 'skewrv365': 0.58}



Total Trading Rule P&L for period '10Y'
ann. mean {'skewabs180': 5.235, 'skewabs365': 6.806, 'skewrv180': 4.199, 'skewrv365': 3.587}
ann. std {'skewabs180': 8.067, 'skewabs365': 7.98, 'skewrv180': 6.576, 'skewrv365': 6.189}
ann. SR {'skewabs180': 0.65, 'skewabs365': 0.85, 'skewrv180': 0.64, 'skewry365': 0.58}



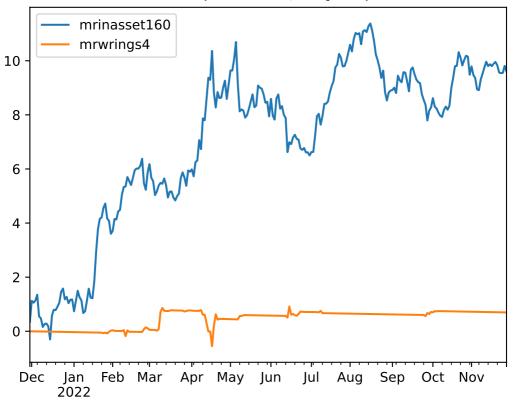
Total Trading Rule P&L for period '99Y'
ann. mean {'skewabs180': 4.234, 'skewabs365': 4.503, 'skewrv180': 4.251, 'skewrv365': 2.243}
ann. std {'skewabs180': 10.794, 'skewabs365': 10.299, 'skewrv180': 9.309, 'skewrv365': 8.607}
ann. SR {'skewabs180': 0.39, 'skewabs365': 0.44, 'skewrv180': 0.46, 'skewrv365': 0.26}



Total Trading Rule P&L for period 'YTD' ann. mean {'mrinasset160': 9.136, 'mrwrings4': 0.787} ann. std {'mrinasset160': 6.333, 'mrwrings4': 1.555} ann. SR {'mrinasset160': 1.44, 'mrwrings4': 0.51}

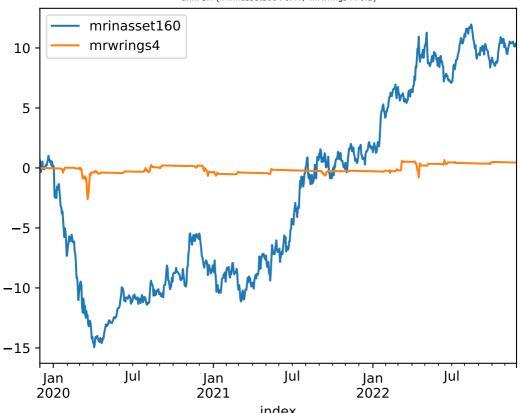


Total Trading Rule P&L for period '1Y' ann. mean {'mrinasset160': 9.452, 'mrwrings4': 0.685} ann. std {'mrinasset160': 6.275, 'mrwrings4': 1.481} ann. SR {'mrinasset160': 1.51, 'mrwrings4': 0.46}



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Total Trading Rule P&L for period '3Y' ann. mean {'mrinasset160': 3.337, 'mrwrings4': 0.147} ann. std {'mrinasset160': 7.095, 'mrwrings4': 1.537} ann. SR {'mrinasset160': 0.47, 'mrwrings4': 0.1}



Total Trading Rule P&L for period '10Y' ann. mean {'mrinasset160': -0.063, 'mrwrings4': 0.036} ann. std {'mrinasset160': 6.654, 'mrwrings4': 0.897} ann. SR {'mrinasset160': -0.01, 'mrwrings4': 0.04}



Total Trading Rule P&L for period '99Y' ann. mean {"mrinasset160': -3.388, 'mrwrings4': -1.175} ann. std {'mrinasset160': 10.928, 'mrwrings4': 2.633} ann. SR {'mrinasset160': -0.31, 'mrwrings4': -0.45}

