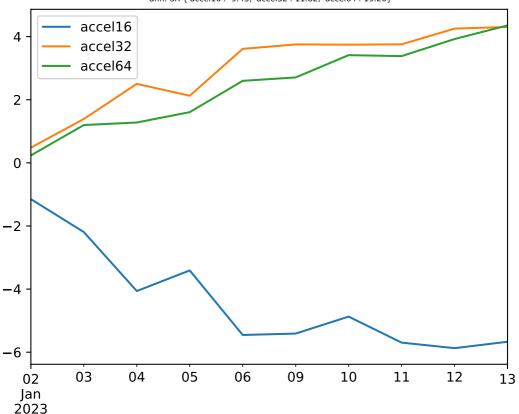
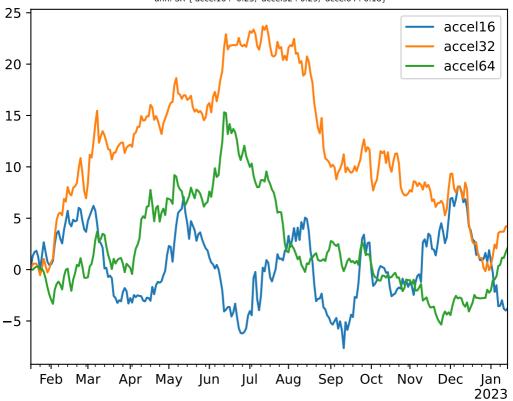
Total Trading Rule P&L for period 'YTD' ann. mean {'accel16': -145.129, 'accel32': 110.265, 'accel64': 111.468} ann. std {'accel16': 15.398, 'accel32': 9.332, 'accel64': 5.787} ann. SR {'accel16': -9.43, 'accel32': 11.82, 'accel64': 19.26}

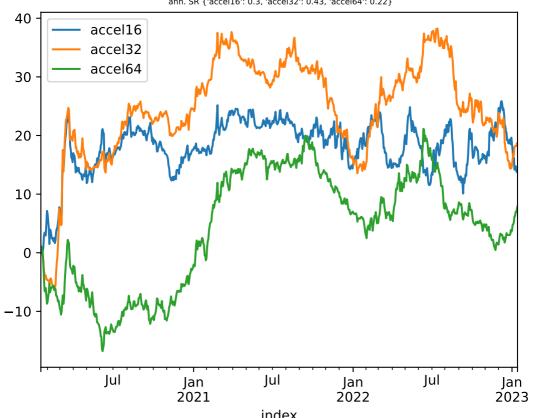


Total Trading Rule P&L for period '1Y' ann. mean {'iaccel16': -3.721, 'accel32': 4.182, 'accel64': 2.074} ann. std {'accel16': 16.216, 'accel32': 14.66, 'accel64': 11.708} ann. SR {'accel16': -0.23, 'accel32': 0.29, 'accel64': 0.18}

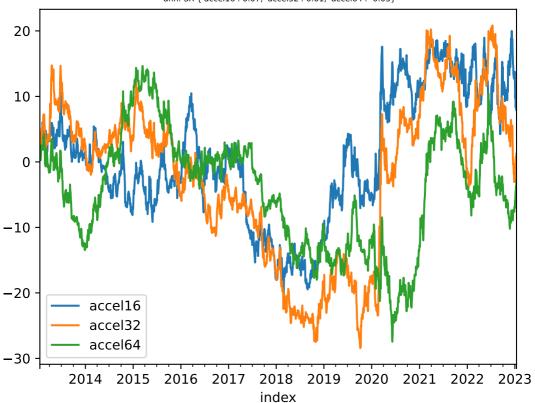


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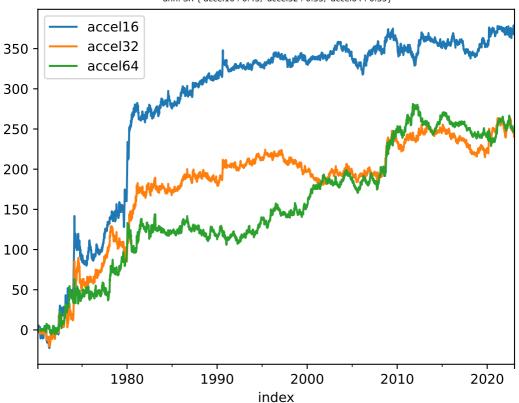
Total Trading Rule P&L for period '3Y' ann. mean {'accel16': 4.578, 'accel32': 6.144, 'accel64': 2.597} ann. std {'accel16': 15.051, 'accel32': 14.331, 'accel64': 11.694} ann. SR {'accel16': 0.3, 'accel32': 0.43, 'accel64': 0.22}

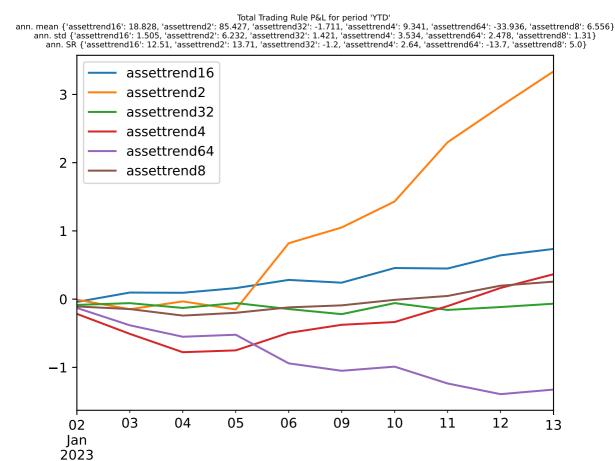


Total Trading Rule P&L for period '10Y' ann. mean {'accel16': 0.795, 'accel32': 0.129, 'accel64': -0.27} ann. std {'accel16': 11.964, 'accel32': 11.225, 'accel64': 9.589} ann. SR {'accel16': 0.07, 'accel32': 0.01, 'accel64': -0.03}



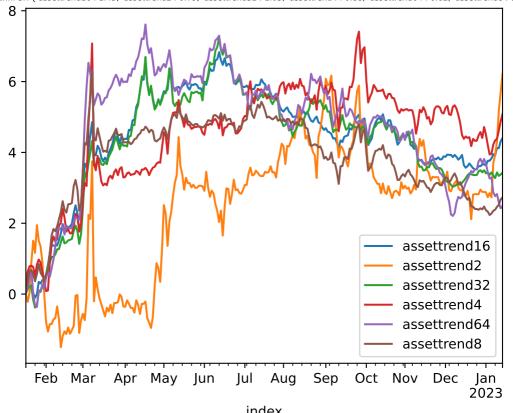
Total Trading Rule P&L for period '99Y' ann. mean {'accel16': 6.8, 'accel32': 4.532, 'accel64': 4.698} ann. std {'accel16': 15.731, 'accel32': 13.8, 'accel64': 13.325} ann. SR {'accel16': 0.43, 'accel32': 0.33, 'accel64': 0.35}





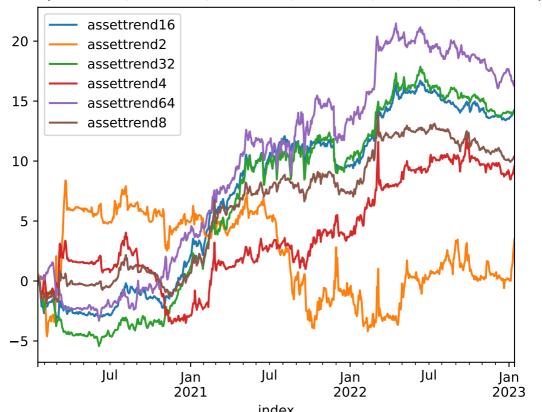
Total Trading Rule P&L for period '1Y'

ann. mean { 'assettrend16': 4.338, 'assettrend2': 6.125, 'assettrend32': 3.375, 'assettrend4': 5.003, 'assettrend64': 2.451, 'assettrend8': 2.688} ann. std { 'assettrend16': 2.996, 'assettrend2': 7.743, 'assettrend32': 3.264, 'assettrend4': 5.673, 'assettrend64': 3.926, 'assettrend8': 3.674} ann. SR { 'assettrend16': 1.45, 'assettrend2': 0.79, 'assettrend32': 1.03, 'assettrend4': 0.88, 'assettrend64': 0.62, 'assettrend8': 0.73}



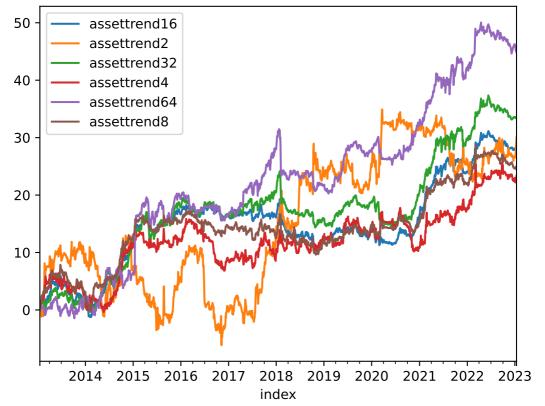
Total Trading Rule P&L for period '3Y'

ann. mean {'assettrend16': 4.685, 'assettrend2': 1.149, 'assettrend32': 4.608, 'assettrend4': 3.148, 'assettrend64': 5.359, 'assettrend8': 3.417} ann. std {'assettrend16': 3.605, 'assettrend2': 7.81, 'assettrend32': 4.423, 'assettrend4': 5.369, 'assettrend64': 5.14, 'assettrend8': 3.743} ann. SR {'assettrend16': 1.3, 'assettrend2': 0.15, 'assettrend32': 1.04, 'assettrend4': 0.59, 'assettrend64': 1.04, 'assettrend8': 0.91}



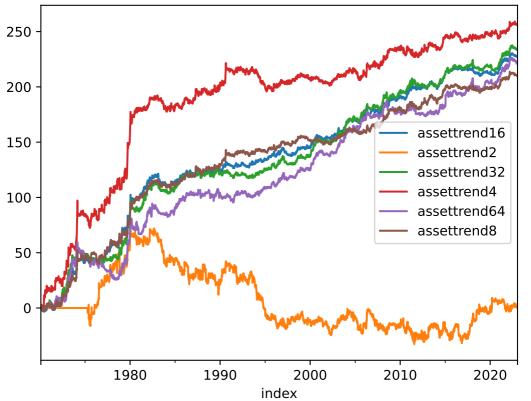
Total Trading Rule P&L for period '10Y'

ann. mean {'assettrend16': 2.821, 'assettrend2': 2.95, 'assettrend32': 3.294, 'assettrend4': 2.292, 'assettrend64': 4.412, 'assettrend8': 2.459} ann. std {'assettrend16': 3.27, 'assettrend2': 8.409, 'assettrend32': 3.746, 'assettrend4': 5.006, 'assettrend64': 5.304, 'assettrend8': 3.566} ann. SR {'assettrend16': 0.86, 'assettrend2': 0.35, 'assettrend32': 0.88, 'assettrend4': 0.46, 'assettrend64': 0.83, 'assettrend8': 0.69}



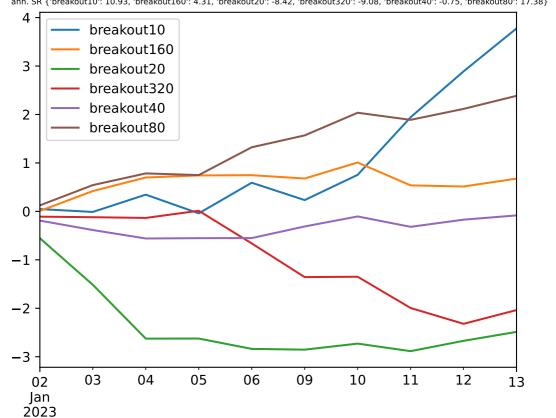
Total Trading Rule P&L for period '99Y'

ann. mean {'assettrend16': 4.227, 'assettrend2': 0.08, 'assettrend32': 4.334, 'assettrend4': 4.76, 'assettrend64': 4.101, 'assettrend8': 3.894} ann. std {'assettrend16': 4.66, 'assettrend2': 10.049, 'assettrend32': 4.894, 'assettrend4': 7.348, 'assettrend64': 5.47, 'assettrend8': 5.035} ann. SR {'assettrend16': 0.91, 'assettrend2': 0.01, 'assettrend32': 0.89, 'assettrend4': 0.65, 'assettrend64': 0.75, 'assettrend8': 0.77}



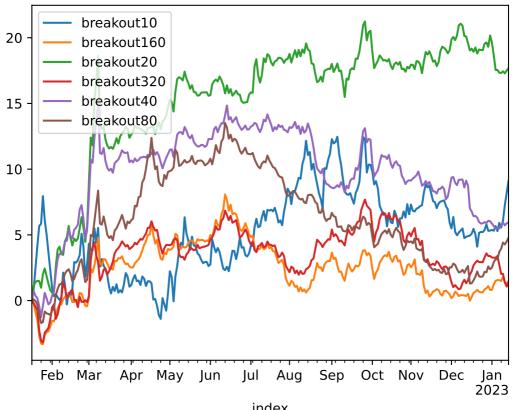
Total Trading Rule P&L for period 'YTD'

ann. mean {'breakout10': 96.661, 'breakout160': 17.319, 'breakout20': -63.675, 'breakout320': -52.16, 'breakout40': -2.123, 'breakout80': 61.058} ann. std {'breakout10': 8.846, 'breakout160': 4.018, 'breakout20': 7.563, 'breakout320': 5.742, 'breakout40': 2.82, 'breakout80': 3.514} ann. SR {'breakout10': 10.93, 'breakout160': 4.31, 'breakout20': -8.42, 'breakout320': -9.08, 'breakout40': -0.75, 'breakout80': 17.38}



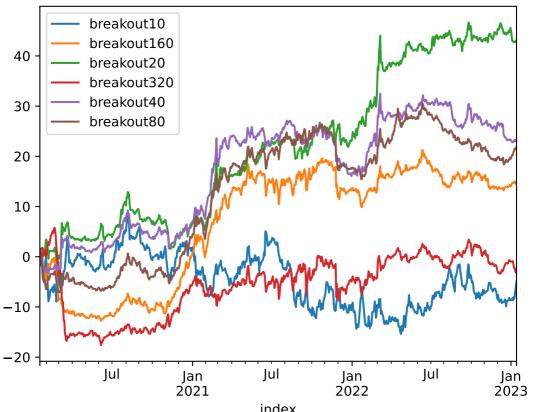
Total Trading Rule P&L for period '1Y'

ann. mean {'breakout10': 8.961, 'breakout160': 1.465, 'breakout20': 17.415, 'breakout320': 1.328, 'breakout40': 5.867, 'breakout80': 4.693} ann. std {'breakout10': 13.387, 'breakout160': 7.065, 'breakout20': 11.833, 'breakout320': 7.366, 'breakout40': 9.539, 'breakout80': 7.942} ann. SR {'breakout10': 0.67, 'breakout160': 0.21, 'breakout20': 1.47, 'breakout320': 0.18, 'breakout40': 0.62, 'breakout80': 0.59}



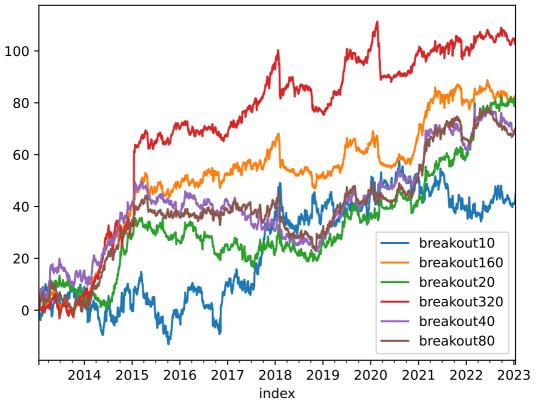
Total Trading Rule P&L for period '3Y'

ann. mean {'breakout10': -1.596, 'breakout160': 4.816, 'breakout20': 14.133, 'breakout320': -0.953, 'breakout40': 7.635, 'breakout80': 7.173} ann. std {'breakout10': 14.517, 'breakout160': 9.716, 'breakout20': 11.505, 'breakout320': 10.693, 'breakout40': 9.966, 'breakout80': 9.527} ann. SR {'breakout10': -0.11, 'breakout160': 0.5, 'breakout20': 1.23, 'breakout320': -0.09, 'breakout40': 0.77, 'breakout40': 0.75}



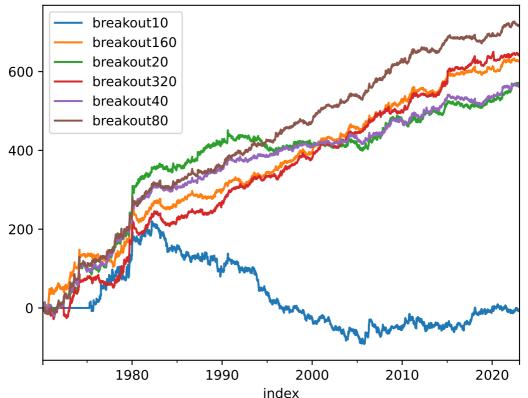
Total Trading Rule P&L for period '10Y'

ann. mean {'breakout10': 4.391, 'breakout160': 8.076, 'breakout20': 7.757, 'breakout320': 10.085, 'breakout40': 6.778, 'breakout80': 6.897} ann. std {'breakout10': 15.692, 'breakout160': 9.118, 'breakout20': 11.193, 'breakout320': 13.336, 'breakout40': 9.82, 'breakout80': 9.019} ann. SR {'breakout10': 0.28, 'breakout160': 0.89, 'breakout20': 0.69, 'breakout320': 0.76, 'breakout40': 0.69, 'breakout80': 0.76}



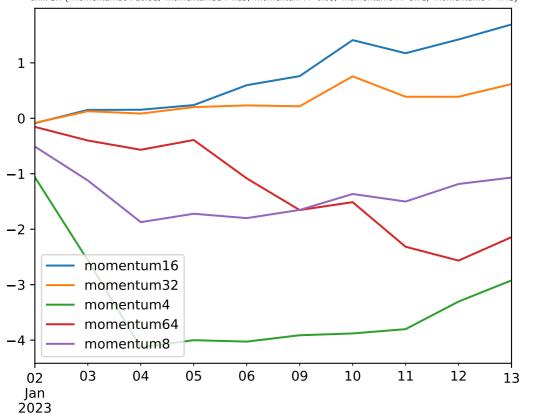
Total Trading Rule P&L for period '99Y'

ann. mean {'breakout10': -0.062, 'breakout160': 11.624, 'breakout20': 10.531, 'breakout320': 11.892, 'breakout40': 10.393, 'breakout80': 13.317} ann. std {'breakout10': 20.831, 'breakout160': 12.494, 'breakout20': 16.1, 'breakout320': 13.048, 'breakout40': 13.232, 'breakout80': 12.754} ann. SR {'breakout10': -0.0, 'breakout160': 0.93, 'breakout20': 0.65, 'breakout320': 0.91, 'breakout40': 0.79, 'breakout80': 1.04}



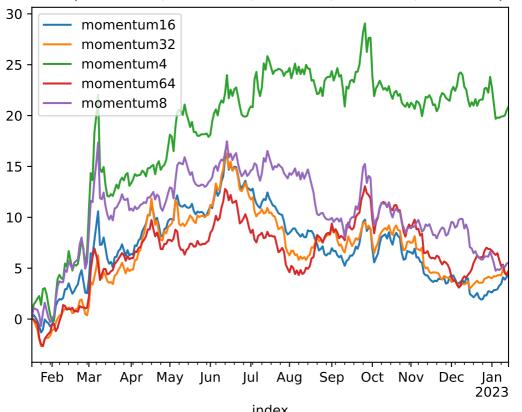
Total Trading Rule P&L for period 'YTD'

ann. mean {'momentum16': 43.326, 'momentum32': 15.806, 'momentum4': -74.811, 'momentum64': -54.868, 'momentum8': -27.354} ann. std {'momentum16': 3.968, 'momentum32': 3.805, 'momentum4': 12.398, 'momentum6': 6.303, 'momentum8': 6.196} ann. SR {'momentum16': 10.92, 'momentum32': 4.15, 'momentum4': -6.03, 'momentum64': -8.7, 'momentum8': -4.41}



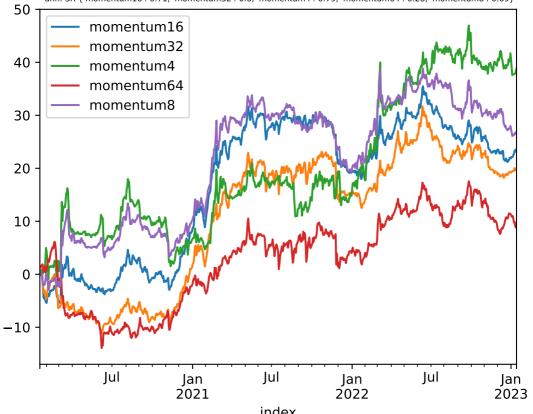
Total Trading Rule P&L for period '1Y'

ann. mean {'momentum16': 4.321, 'momentum32': 4.637, 'momentum4': 20.564, 'momentum64': 4.654, 'momentum8': 5.468} ann. std {'momentum16': 10.072, 'momentum32': 9.6, 'momentum4': 17.201, 'momentum64': 9.336, 'momentum8': 13.05} ann. SR {'momentum16': 0.43, 'momentum32': 0.48, 'momentum4': 1.2, 'momentum64': 0.5, 'momentum8': 0.42}



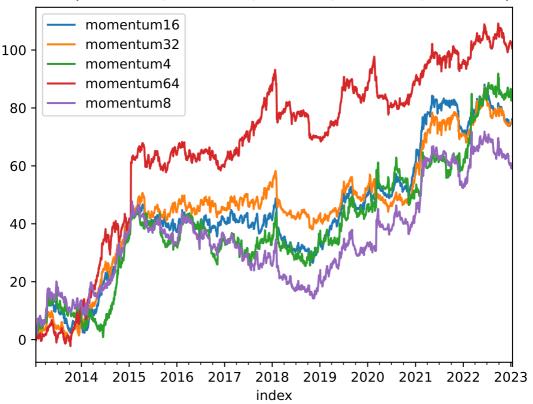
Total Trading Rule P&L for period '3Y'

ann. mean {'momentum16': 7.758, 'momentum32': 6.523, 'momentum4': 12.715, 'momentum64': 3.026, 'momentum8': 8.822} ann. std {'momentum16': 10.999, 'momentum32': 10.84, 'momentum4': 16.115, 'momentum64': 10.905, 'momentum8: 12.787} ann. SR {'momentum16': 0.71, 'momentum32': 0.6, 'momentum4': 0.79, 'momentum64': 0.28, 'momentum8': 0.69}



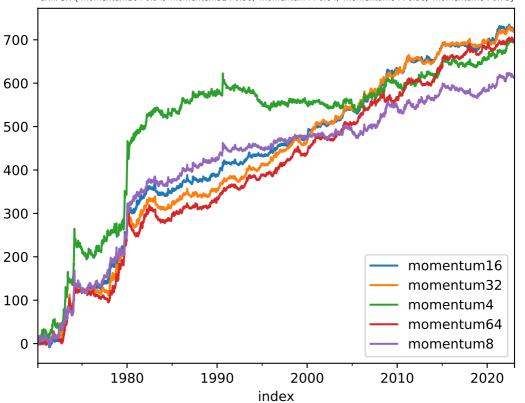
Total Trading Rule P&L for period '10Y'

ann. mean {'momentum16': 7.49, 'momentum32': 7.402, 'momentum4': 8.221, 'momentum64': 9.902, 'momentum8': 5.885} ann. std {'momentum16': 9.947, 'momentum32': 9.49, 'momentum4': 13.703, 'momentum64': 12.009, 'momentum8': 11.314} ann. SR {'momentum16': 0.75, 'momentum32': 0.78, 'momentum4': 0.6, 'momentum64': 0.82, 'momentum8': 0.52}



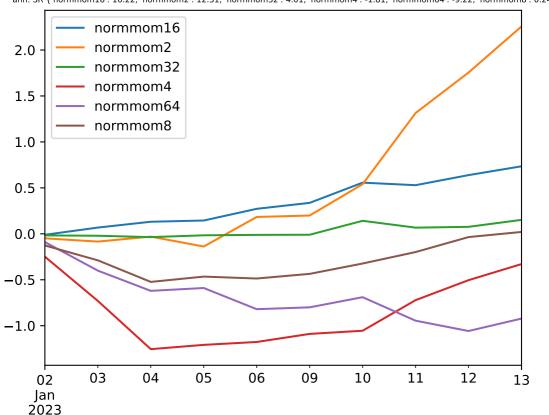
Total Trading Rule P&L for period '99Y'

ann. mean {'momentum16': 13.409, 'momentum32': 13.34, 'momentum4': 12.878, 'momentum64': 12.923, 'momentum8': 11.338} ann. std {'momentum16': 14.221, 'momentum32': 13.881, 'momentum4': 20.076, 'momentum64': 13.488, 'momentum8': 15.87} ann. SR {'momentum16': 0.94, 'momentum32': 0.96, 'momentum16': 0.94, 'momentum8': 0.71}



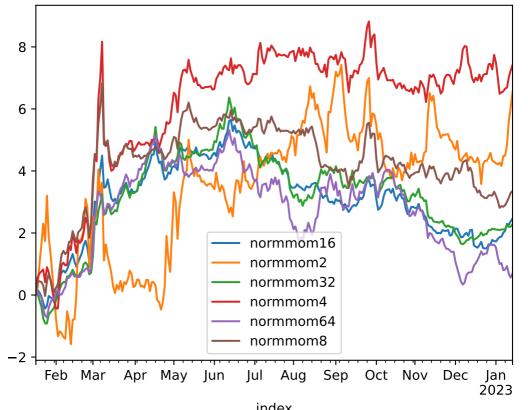
Total Trading Rule P&L for period 'YTD'

ann. mean {'normmom16': 18.812, 'normmom2': 57.762, 'normmom32': 3.888, 'normmom4': -8.426, 'normmom64': -23.614, 'normmom8': 0.521} ann. std {'normmom16': 1.16, 'normmom2': 4.692, 'normmom12': 0.97, 'normmom4': 4.647, 'normmom64': 2.563, 'normmom8': 2.144} ann. SR {'normmom16': 16.22, 'normmom2': 12.31, 'normmom32': 1.01, 'normmom4': -1.81, 'normmom64': -9.22, 'normmom8': 0.24}



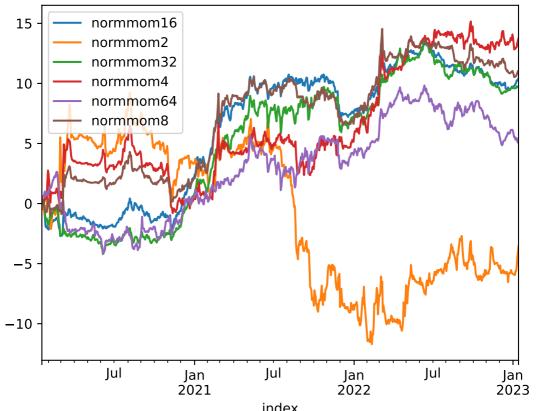
Total Trading Rule P&L for period '1Y'

ann. mean {'normmom16': 2.434, 'normmom2': 6.453, 'normmom32': 2.245, 'normmom4': 7.299, 'normmom64': 0.688, 'normmom8': 3.301} ann. std {'normmom16': 3.111, 'normmom2': 7.996, 'normmom32': 3.103, 'normmom4': 5.967, 'normmom64': 3.405, 'normmom8': 4.194} ann. SR {'normmom16': 0.78, 'normmom2': 0.81, 'normmom32': 0.72, 'normmom4': 1.22, 'normmom64': 0.2, 'normmom8': 0.79}



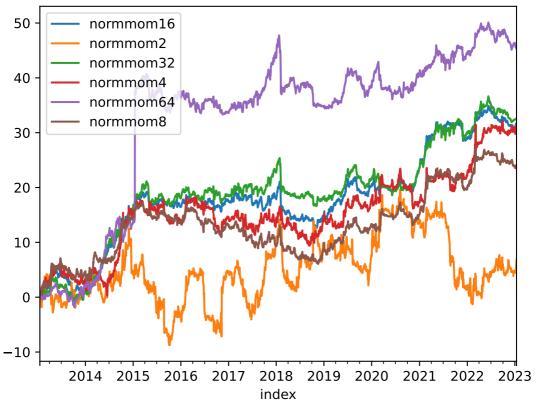
Total Trading Rule P&L for period '3Y'

ann. mean {'normmom16': 3.419, 'normmom2': -1.169, 'normmom32': 3.203, 'normmom4': 4.508, 'normmom64': 1.709, 'normmom8': 3.628} ann. std {'normmom16': 3.699, 'normmom2': 8.485, 'normmom32': 4.039, 'normmom4': 5.84, 'normmom64': 4.305, 'normmom8': 4.243} ann. SR {'normmom16': 0.92, 'normmom2': -0.14, 'normmom32': 0.79, 'normmom4': 0.77, 'normmom64': 0.4, 'normmom8': 0.86}



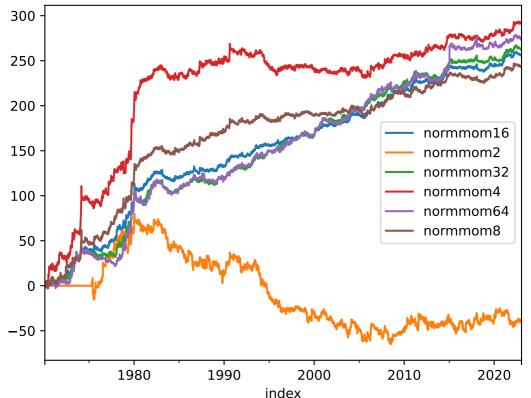
Total Trading Rule P&L for period '10Y'

ann. mean {'normmom16': 3.117, 'normmom2': 0.67, 'normmom32': 3.197, 'normmom4': 3.015, 'normmom64': 4.466, 'normmom8': 2.362} ann. std {'normmom16': 3.575, 'normmom2': 9.055, 'normmom32': 3.726, 'normmom4': 5.499, 'normmom64': 8.563, 'normmom8': 4.042} ann. SR {'normmom16': 0.87, 'normmom2': 0.07, 'normmom32': 0.86, 'normmom4': 0.55, 'normmom64': 0.52, 'normmom8': 0.58}



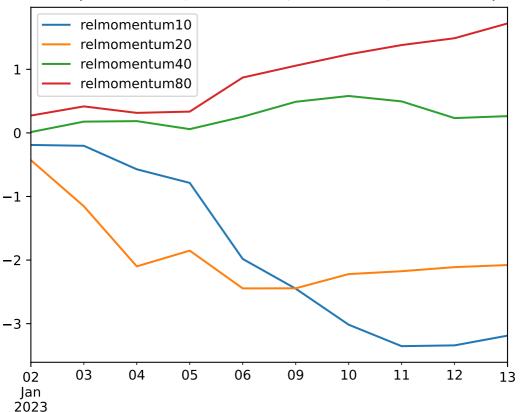
Total Trading Rule P&L for period '99Y'

ann. mean {'normmom16': 4.759, 'normmom2': -0.697, 'normmom32': 4.876, 'normmom4': 5.415, 'normmom64': 5.076, 'normmom8': 4.511} ann. std {'normmom16': 4.922, 'normmom2': 11.198, 'normmom32': 4.991, 'normmom4': 8.322, 'normmom64': 6.309, 'normmom8': 5.931} ann. SR {'normmom16': 0.97, 'normmom2': -0.06, 'normmom32': 0.98, 'normmom4': 0.65, 'normmom64': 0.8, 'normmom8': 0.76}



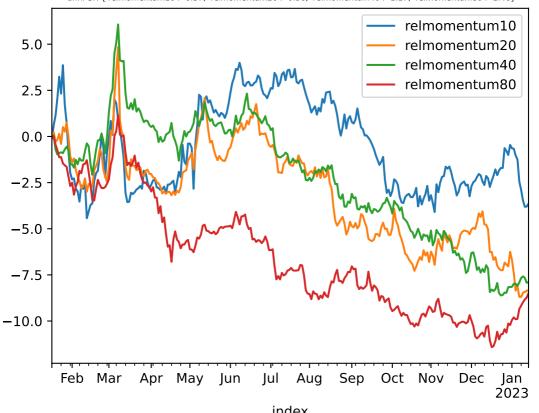
Total Trading Rule P&L for period 'YTD'

ann. mean {'relmomentum10': -81.628, 'relmomentum20': -53.203, 'relmomentum40': 6.751, 'relmomentum80': 44.069} ann. std ('relmomentum10': 6.101, 'relmomentum20': 6.834, 'relmomentum40': 2.472, 'relmomentum80': 2.6665 ann. SR {'relmomentum10': -13.38, 'relmomentum20': -7.79, 'relmomentum40': 2.73, 'relmomentum80': 16.53}



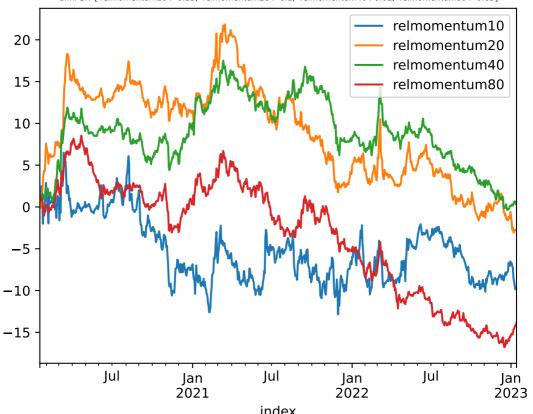
Total Trading Rule P&L for period '1Y'

ann. mean {'relmomentum10': -3.589, 'relmomentum20': -8.2, 'relmomentum40': -7.775, 'relmomentum80': -8.366} ann. std {'relmomentum10': 9.771, 'relmomentum20': 8.512, 'relmomentum40': 6.666, 'relmomentum80': 5.714} ann. SR {'relmomentum10': -0.37, 'relmomentum20': -0.96, 'relmomentum40': -1.17, 'relmomentum80': -1.46}



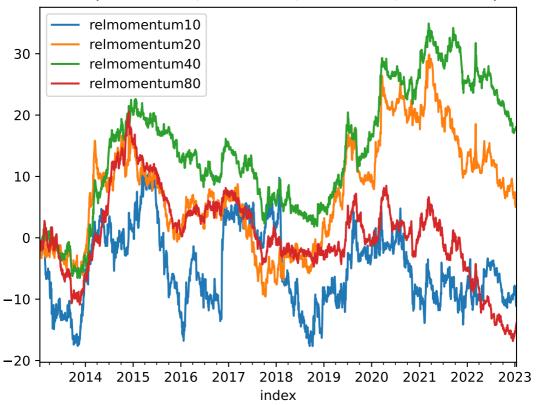
Total Trading Rule P&L for period '3Y'

ann. mean {'relmomentum10': -3.177, 'relmomentum20': -0.873, 'relmomentum40': 0.119, 'relmomentum80': -4.541} ann. std {'relmomentum10': 12.698, 'relmomentum20': 9.076, 'relmomentum40': 7.463, 'relmomentum80': 6.953} ann. SR {'relmomentum10': -0.25, 'relmomentum20': -0.1, 'relmomentum40': 0.02, 'relmomentum80': -0.65}



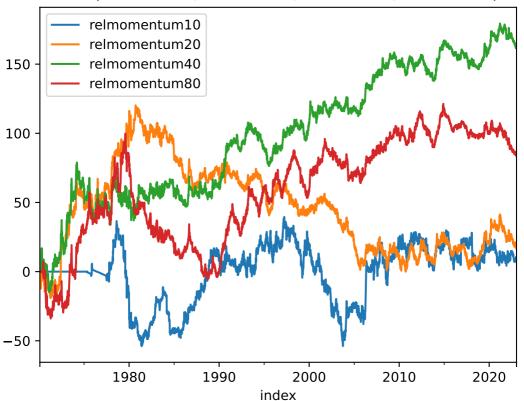
Total Trading Rule P&L for period '10Y'

ann. mean {'relmomentum10': -1.078, 'relmomentum20': 0.528, 'relmomentum40': 1.746, 'relmomentum80': -1.366} ann. std {'relmomentum10': 1.366, 'relmomentum20': 8.952, 'relmomentum40': 7.348, 'relmomentum80': 6.792} ann. SR {'relmomentum10': -0.08, 'relmomentum20': 0.06, 'relmomentum40': 0.24, 'relmomentum80': -0.25

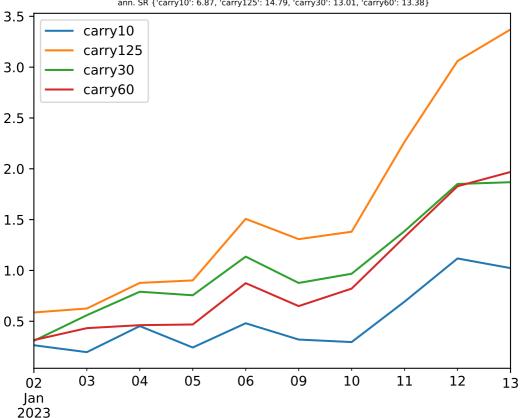


Total Trading Rule P&L for period '99Y'

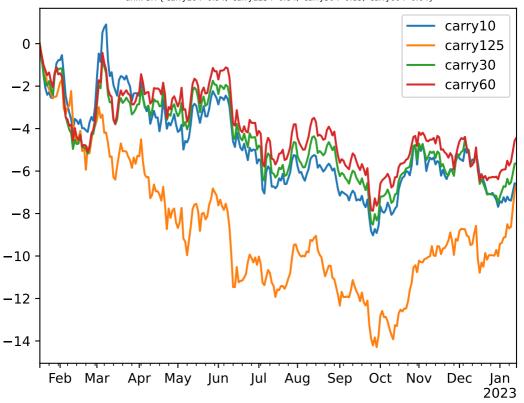
ann. mean {'relmomentum10': 0.137, 'relmomentum20': 0.313, 'relmomentum40': 3.007, 'relmomentum80': 1.608} ann. std {'relmomentum10': 13.321, 'relmomentum20': 11.524, 'relmomentum40': 10.792, 'relmomentum80': 11.06} ann. SR {'relmomentum10': 0.01, 'relmomentum20': 0.03, 'relmomentum40': 0.28, 'relmomentum80': 0.15}



Total Trading Rule P&L for period 'YTD' ann. mean {'carry10': 26.186, 'carry125': 86.293, 'carry30': 47.821, 'carry60': 50.397} ann. std {'carry10': 3.811, 'carry125': 5.833, 'carry30': 3.675, 'carry60': 3.768} ann. SR {'carry10': 6.87, 'carry125': 14.79, 'carry30': 13.01, 'carry60': 13.38}

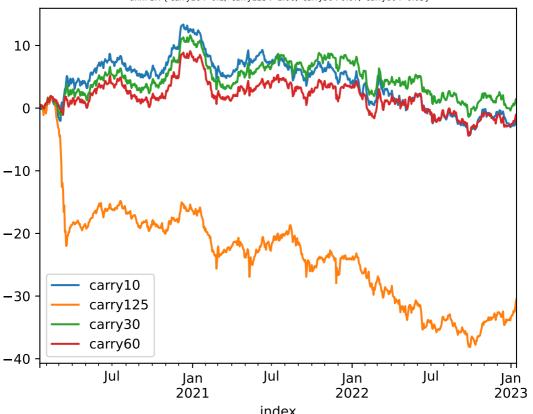


Total Trading Rule P&L for period '1Y'
ann. mean {'carry10': -6.56, 'carry125': -6.537, 'carry30': -5.546, 'carry60': -4.351}
ann. std {'carry10': 6.962, 'carry125': 7.745, 'carry30': 6.686, 'carry60': 6.765}
ann. SR {'carry10': -0.94, 'carry125': -0.84, 'carry30': -0.83, 'carry60': -0.64}

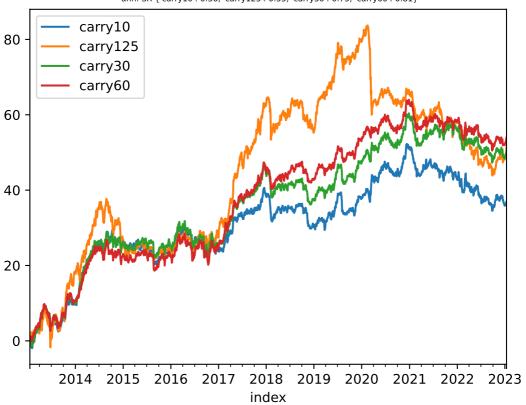


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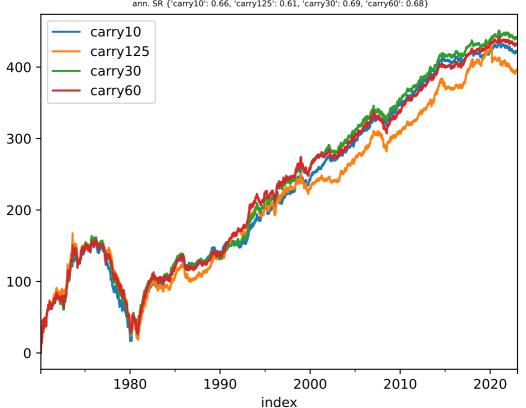
Total Trading Rule P&L for period '37' ann. mean {'carry10': -0.669, 'carry125': -9.997, 'carry30': 0.481, 'carry60': -0.312} ann. std {'carry10': 6.831, 'carry125': 9.464, 'carry30': 6.633, 'carry60': 6.572} ann. SR {'carry10': -0.1, 'carry125': -1.06, 'carry30': 0.07, 'carry60': -0.05}



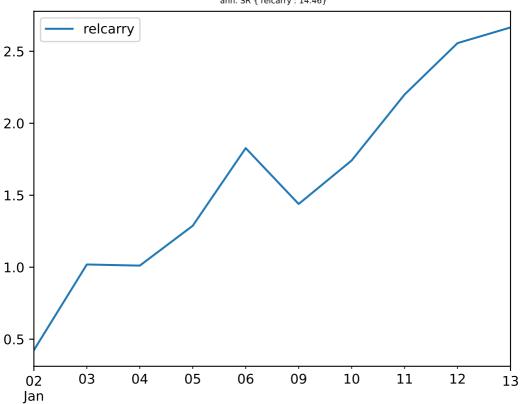
Total Trading Rule P&L for period '10Y'
ann. mean {'carry10': 3.62, 'carry125': 5.059, 'carry30': 4.93, 'carry60': 5.298}
ann. std {'carry10': 6.451, 'carry125': 9.138, 'carry30': 6.55, 'carry60': 6.512}
ann. SR {'carry10': 0.56, 'carry125': 0.55, 'carry30': 0.75, 'carry60': 0.81}



Total Trading Rule P&L for period '99Y'
ann. mean {'carry10': 7.798, 'carry125': 7.375, 'carry30': 8.173, 'carry60': 8.019}
ann. std {'carry10': 11.855, 'carry125': 12.098, 'carry30': 11.868, 'carry60': 11.818}
ann. SR {'carry10': 0.66, 'carry125': 0.61, 'carry30': 0.69, 'carry60': 0.68}

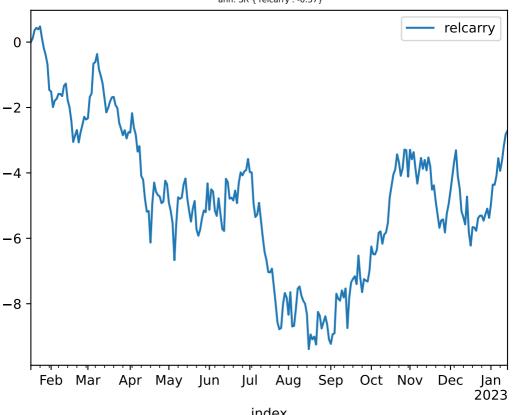


Total Trading Rule P&L for period 'YTD' ann. mean {'relcarry': 68.239} ann. std {'relcarry': 4.718} ann. SR {'relcarry': 14.46}

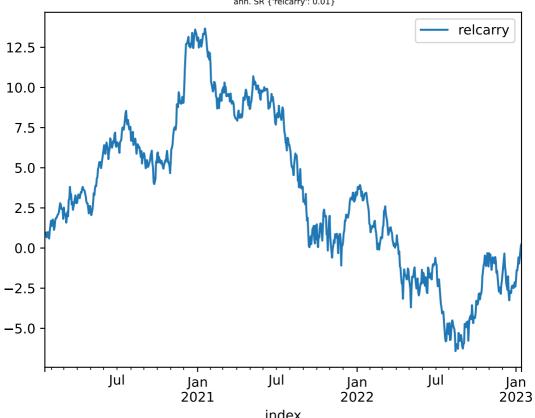


2023

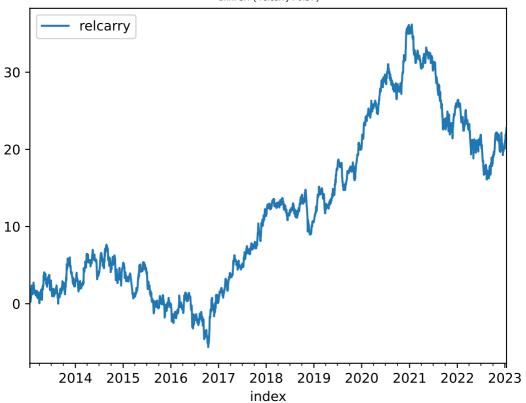
Total Trading Rule P&L for period '1Y' ann. mean {'relcarry': -2.668} ann. std {'relcarry': 7.22} ann. SR {'relcarry': -0.37}



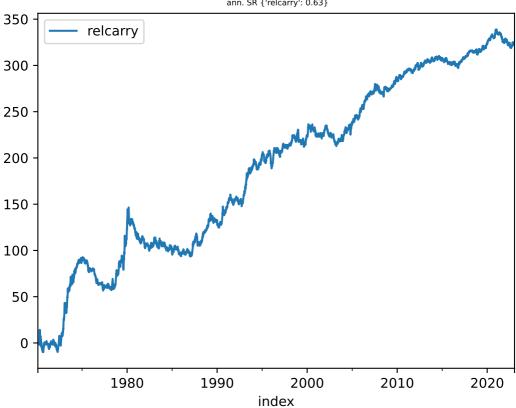
Total Trading Rule P&L for period '3Y' ann. mean {'relcarry': 0.085} ann. std {'relcarry': 6.856} ann. SR {'relcarry': 0.01}



Total Trading Rule P&L for period '10Y' ann. mean {'relcarry': 2.236} ann. std {'relcarry': 6.028} ann. SR {'relcarry': 0.37}

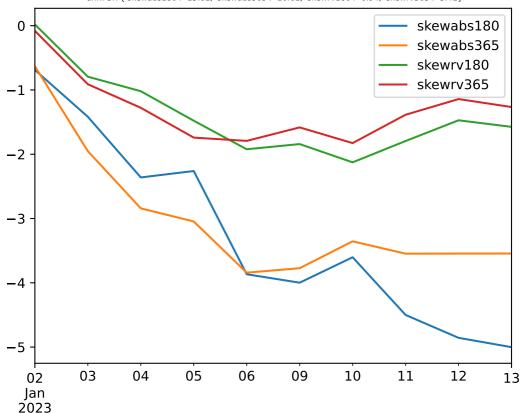


Total Trading Rule P&L for period '99Y' ann. mean {'relcarry': 6.032} ann. std {'relcarry': 9.556} ann. SR {'relcarry': 0.63}



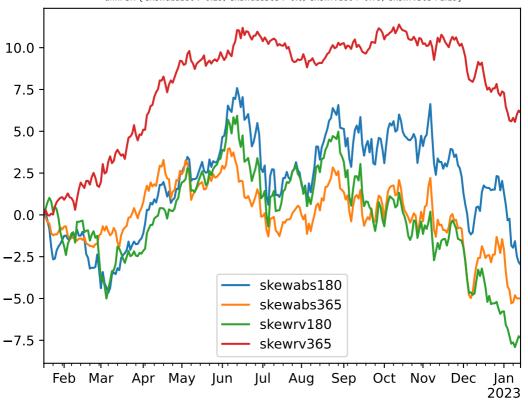
Total Trading Rule P&L for period 'YTD'

ann. mean {'skewabs180': -128.031, 'skewabs365': -90.744, 'skewrv180': -40.295, 'skewrv365': -32.397} ann. std {'skewabs180': 9.406, 'skewabs365': 8.552, 'skewrv180': 5.803, 'skewrv365': 5.99} ann. SR {'skewabs180': -13.61, 'skewabs365': -10.61, 'skewrv180': -6.94, 'skewrv365': -5.41}



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

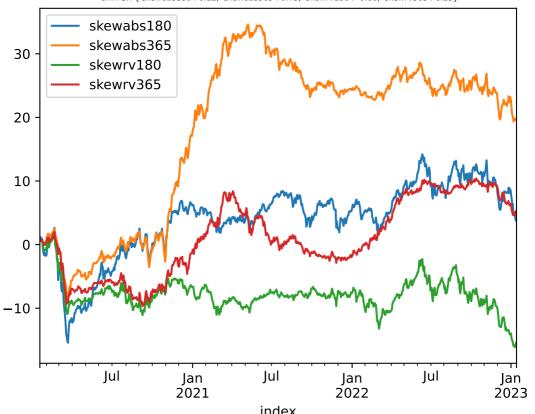
ann. mean {'skewabs180': -2.923, 'skewabs365': -4.918, 'skewrv180': -7.245, 'skewrv365': 6.026} ann. std {'skewabs180': 10.117, 'skewabs365': 8.136, 'skewrv180': 9.212, 'skewrv365': 5.077} ann. SR {'skewabs180': -0.29, 'skewabs365': -0.6, 'skewrv180': -0.79, 'skewrv365': 1.19}



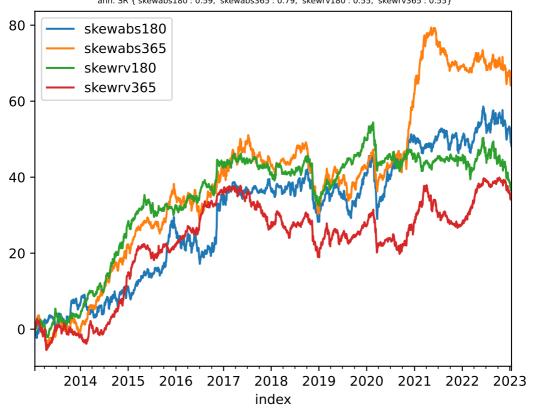
index

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

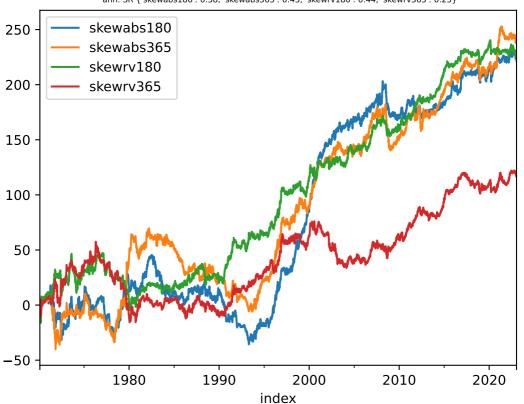
ann. mean ('skewabs180': 1.199, 'skewabs365': 6.443, 'skewrv180': -5.104, 'skewrv365': 1.685) ann. std ('skewabs180': 9.677, 'skewabs365': 8.858, 'skewrv180': 7.788, 'skewrv365': 6.14} ann. SR ('skewabs180': 0.12, 'skewabs365': 0.73, 'skewrv180': -0.66, 'skewrv365': 0.25)



Total Trading Rule P&L for period '10Y' ann. mean {'skewabs180': 4.72, 'skewabs365': 6.329, 'skewrv180': 3.641, 'skewrv365': 3.403} ann. std {'skewabs180': 8.068, 'skewabs365': 8.0, 'skewrv180': 6.591, 'skewrv365': 6.18} ann. SR {'skewabs180': 0.59, 'skewabs365': 0.79, 'skewrv180': 0.55, 'skewrv365': 0.55}

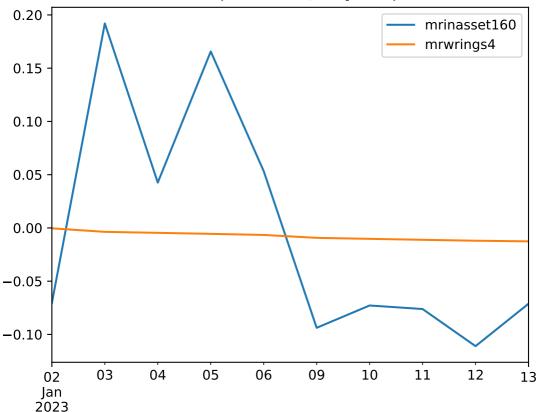


Total Trading Rule P&L for period '99Y'
ann. mean {'skewabs180': 4.108, 'skewabs365': 4.408, 'skewrv180': 4.134, 'skewrv365': 2.166}
ann. std {'skewabs180': 10.793, 'skewabs365': 10.298, 'skewrv180': 9.306, 'skewrv365': 8.601}
ann. SR {'skewabs180': 0.38, 'skewabs365': 0.43, 'skewrv180': 0.44, 'skewrv365': 0.25}

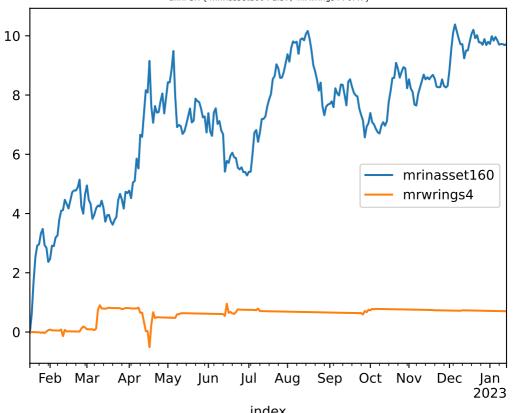




Total Trading Rule P&L for period 'YTD' ann. mean {'mrinasset160': -1.822, 'mrwrings4': -0.323} ann. std {'mrinasset160': 2.054, 'mrwrings4': 0.015} ann. SR {'mrinasset160': -0.89, 'mrwrings4': -21.05}



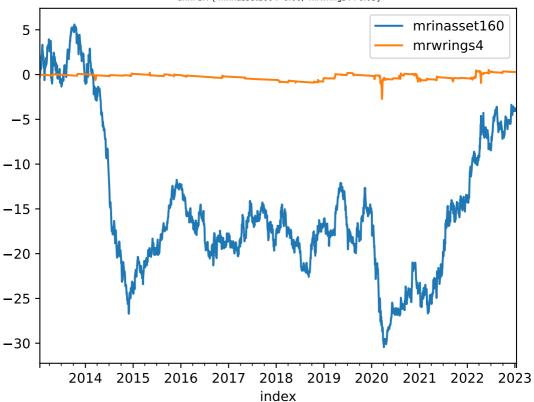
Total Trading Rule P&L for period '1Y' ann. mean {'mrinasset160': 9.575, 'mrwrings4': 0.691} ann. std {'mrinasset160': 6.109, 'mrwrings4': 1.481} ann. SR {'mrinasset160': 1.57, 'mrwrings4': 0.47}



Total Trading Rule P&L for period '3Y' ann. mean {'mrinasset160': 4.558, 'mrwrings4': 0.141} ann. std {'mrinasset160': 6.898, 'mrwrings4': 1.537} ann. SR {'mrinasset160': 0.66, 'mrwrings4': 0.09}



Total Trading Rule P&L for period '10Y' ann. mean {'mrinasset160': -0.396, 'mrwrings4': 0.027} ann. std {'mrinasset160': 6.601, 'mrwrings4': 0.897} ann. SR {'mrinasset160': -0.06, 'mrwrings4': 0.03}



Total Trading Rule P&L for period '99Y' ann. mean {'mrinasset160': -3.354, 'mrwrings4': -1.173} ann. std {'mrinasset160': 10.916, 'mrwrings4': 2.63} ann. SR {'mrinasset160': -0.31, 'mrwrings4': -0.45}

