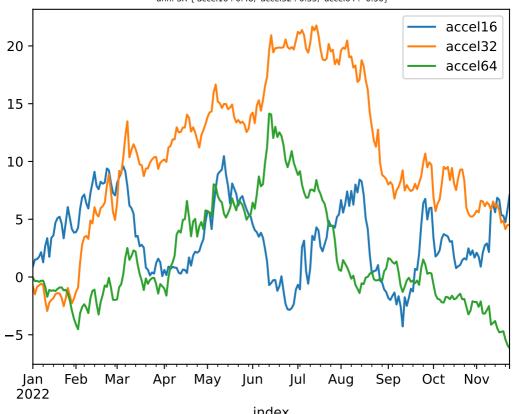
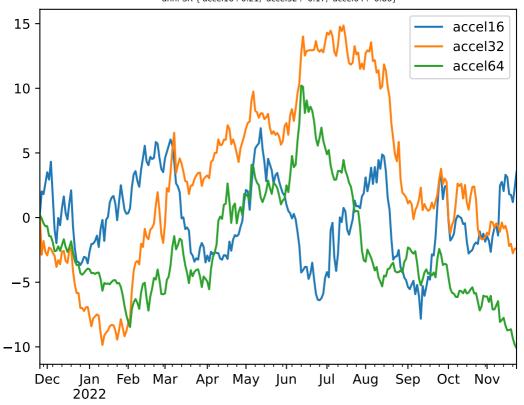
Total Trading Rule P&L for period 'YTD' ann. mean {'accel16': 7.78, 'accel32': 4.958, 'accel64': -6.766} ann. std {'accel16': 16.296, 'accel32': 14.33, 'accel64': 12.037} ann. SR {'accel16': 0.48, 'accel32': 0.35, 'accel64': -0.56}

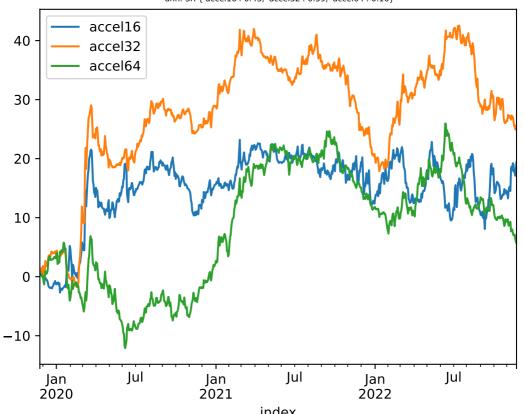


Total Trading Rule P&L for period '1Y' ann. mean {'accel16': 3.479, 'accel32': -2.363, 'accel64': -9.944} ann. std {'accel16': 16.813, 'accel32': 14.308, 'accel64': 11.592} ann. SR {'accel16': 0.21, 'accel32': -0.17, 'accel64': -0.86}

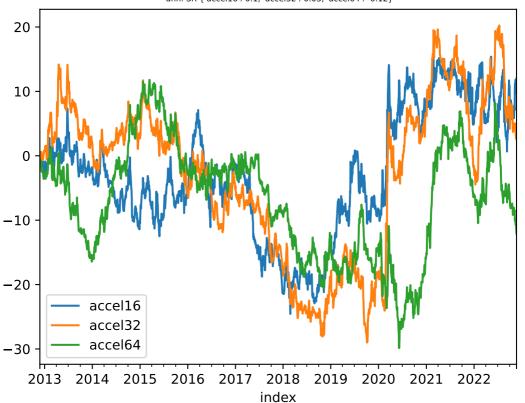


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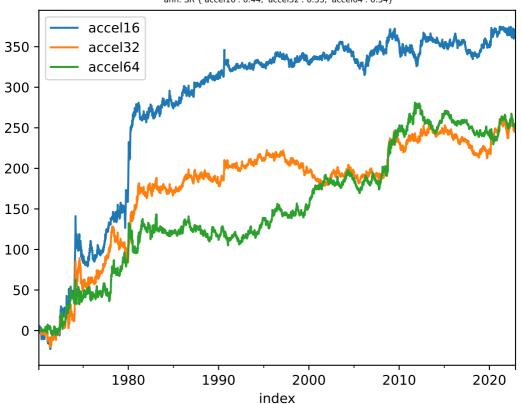
Total Trading Rule P&L for period '3Y' ann. mean {'accel16': 6.359, 'accel32': 8.275, 'accel64': 1.851} ann. std {'accel16': 14.723, 'accel32': 14.103, 'accel64': 11.781} ann. SR {'accel16': 0.43, 'accel32': 0.59, 'accel64': 0.16}



Total Trading Rule P&L for period '10Y' ann. mean {'accel16': 1.18, 'accel32': 0.292, 'accel64': -1.188} ann. std {'accel16': 11.847, 'accel32': 11.086, 'accel64': 9.571} ann. SR {'accel16': 0.1, 'accel32': 0.03, 'accel64': -0.12}

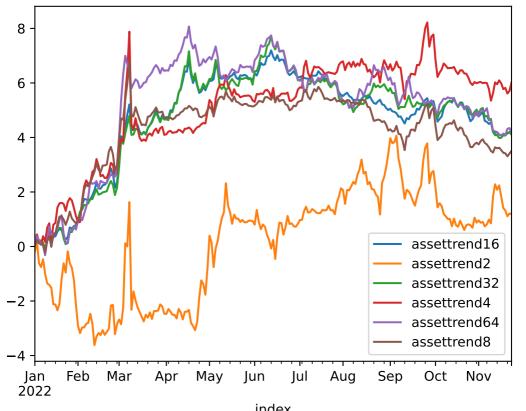


Total Trading Rule P&L for period '99Y' ann. mean {'accel16': 6.897, 'accel32': 4.524, 'accel64': 4.594} ann. std {'accel16': 15.731, 'accel32': 13.794, 'accel64': 13.337} ann. SR {'accel16': 0.44, 'accel32': 0.33, 'accel64': 0.34}



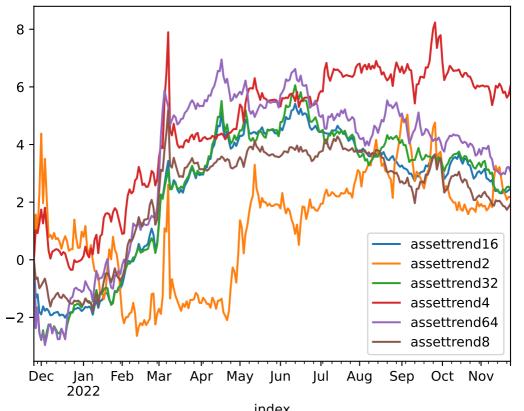
Total Trading Rule P&L for period 'YTD'

ann. mean {'assettrend16': 4.643, 'assettrend2': 1.314, 'assettrend32': 4.509, 'assettrend4': 6.611, 'assettrend64': 4.593, 'assettrend8': 3.853} ann. Std {'assettrend16': 3.169, 'assettrend2': 8.047, 'assettrend32': 3.495, 'assettrend4': 6.015, 'assettrend64': 4.122, 'assettrend8': 3.935} ann. SR {'assettrend16': 1.46, 'assettrend2': 0.16, 'assettrend3': 1.29, 'assettrend4': 1.1, 'assettrend64': 1.11, 'assettrend8': 0.98



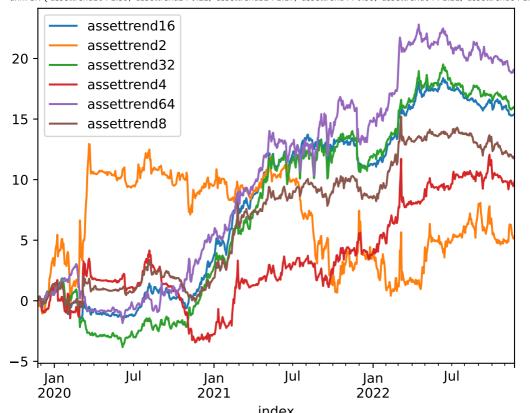
Total Trading Rule P&L for period '1Y'

ann. mean { 'assettrend16': 2.408, 'assettrend2': 2.139, 'assettrend32': 2.414, 'assettrend4': 5.94, 'assettrend64': 3.013, 'assettrend8': 1.904} ann. std {'assettrend16': 3.383, 'assettrend2': 8.998, 'assettrend32': 4.031, 'assettrend4': 5.989, 'assettrend64': 4.932, 'assettrend8': 3.879} ann. SR {'assettrend16': 0.71, 'assettrend2': 0.24, 'assettrend32': 0.6, 'assettrend4': 0.99, 'assettrend64': 0.61, 'assettrend68': 0.49}



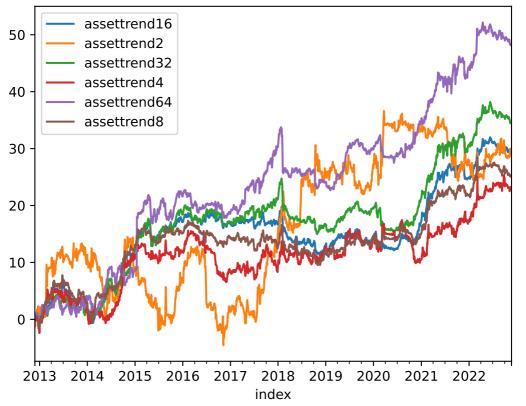
Total Trading Rule P&L for period '3Y'

ann. mean {'assettrend16': 5.04, 'assettrend2': 1.709, 'assettrend32': 5.201, 'assettrend4': 3.224, 'assettrend64': 6.185, 'assettrend8': 3.908} ann. std {'assettrend16': 3.627, 'assettrend2': 7.889, 'assettrend32': 4.434, 'assettrend4': 5.459, 'assettrend64': 5.131, 'assettrend8': 3.771} ann. SR {'assettrend16': 1.39, 'assettrend2': 0.22, 'assettrend32': 1.17, 'assettrend4': 0.59, 'assettrend64': 1.21, 'assettrend8': 1.04}



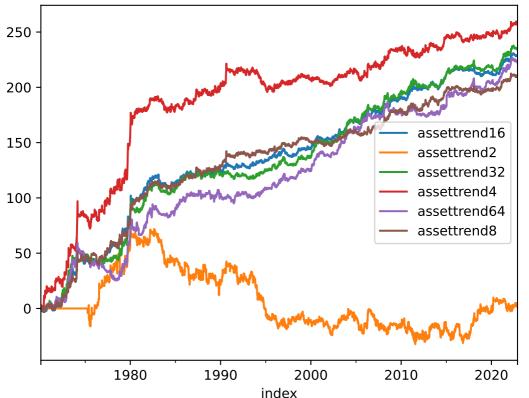
Total Trading Rule P&L for period '10Y'

ann. mean {'assettrend16': 2.85, 'assettrend2': 2.836, 'assettrend32': 3.393, 'assettrend4': 2.274, 'assettrend64': 4.738, 'assettrend8': 2.474} ann. std {'assettrend16': 3.282, 'assettrend2': 8.483, 'assettrend32': 3.759, 'assettrend4': 5.046, 'assettrend64': 5.306, 'assettrend8': 3.599} ann. SR {'assettrend16': 0.87, 'assettrend2': 0.33, 'assettrend32': 0.9, 'assettrend4': 0.45, 'assettrend64': 0.89, 'assettrend8': 0.69}



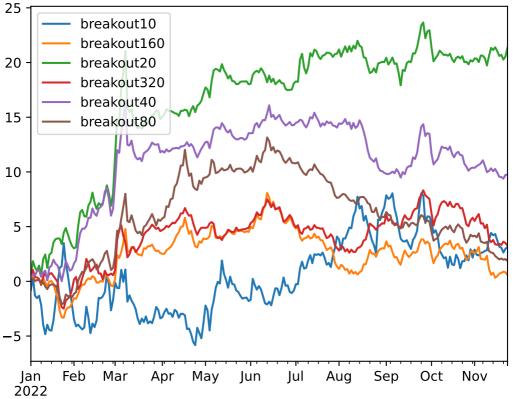
Total Trading Rule P&L for period '99Y'

ann. mean {'assettrend16': 4.234, 'assettrend2': 0.04, 'assettrend32': 4.352, 'assettrend4': 4.782, 'assettrend64': 4.136, 'assettrend8': 3.888} ann. std {'assettrend16': 4.666, 'assettrend2': 10.059, 'assettrend32': 4.9, 'assettrend4': 7.357, 'assettrend64': 5.474, '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'

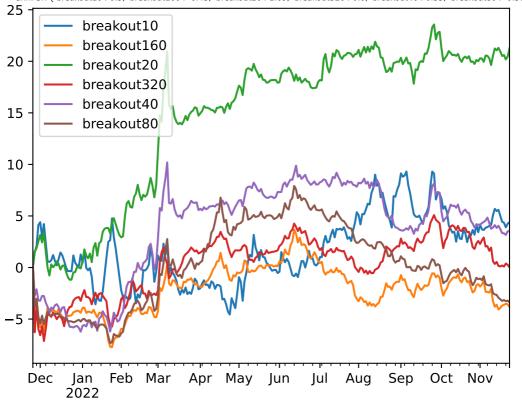
ann. mean {'breakout10': 3.438, 'breakout160': 0.624, 'breakout20': 23.463, 'breakout320': 3.584, 'breakout40': 10.715, 'breakout80': 2.05} ann. std {'breakout10': 14.14, 'breakout160': 7.409, 'breakout20': 12.512, 'breakout320': 7.707, 'breakout40': 9.883, 'breakout80': 8.129} ann. SR {'breakout10': 0.24, 'breakout160': 0.08, 'breakout20': 1.88, 'breakout320': 0.47, 'breakout40': 1.08, 'breakout80': 0.25}



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

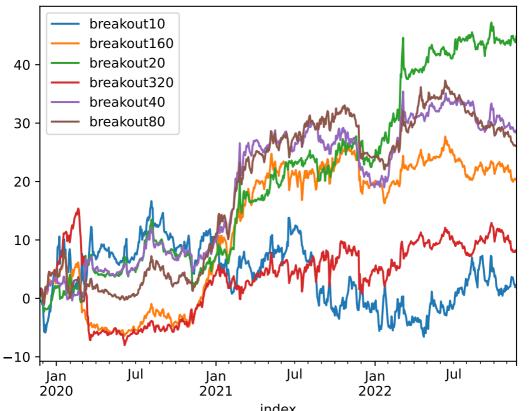
ann. mean {'breakout10': 4.328, 'breakout160': -3.772, 'breakout20': 20.939, 'breakout320': 0.024, 'breakout40': 3.477, 'breakout80': -3.327} ann. std {'breakout10': 14.222, 'breakout10': 8.715, 'breakout20': 12.426, 'breakout320': 10.828, 'breakout40': 10.042, 'breakout80': 8.983} ann. SR {'breakout10': 0.3, 'breakout160': -0.43, 'breakout20': 1.69, 'breakout320': 0.0, 'breakout40': 0.35, 'breakout80': -0.37}



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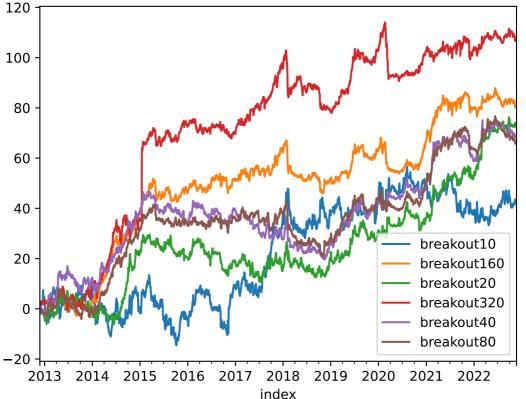
Total Trading Rule P&L for period '3Y'

ann. mean ('breakout10': 0.78, 'breakout160': 6.603, 'breakout20': 14.687, 'breakout320': 2.572, 'breakout40': 9.402, 'breakout80': 8.501} ann. std ('breakout10': 15.228, 'breakout160': 9.824, 'breakout20': 11.531, 'breakout320': 10.876, 'breakout40': 10.039, 'breakout80': 9.722} ann. SR ('breakout10': 0.05, 'breakout160': 0.67, 'breakout20': 1.27, 'breakout320': 0.24, 'breakout40': 0.94, 'breakout80': 0.87}



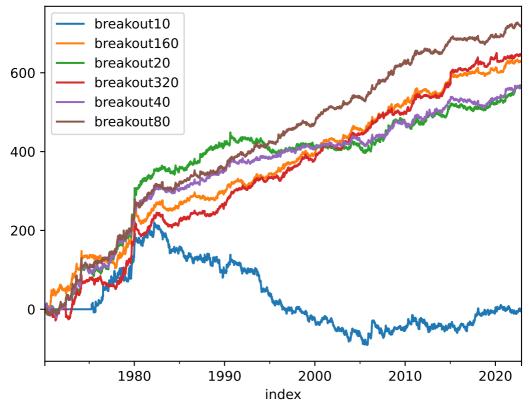
Total Trading Rule P&L for period '10Y' ann. mean {'breakout10': 4.142, 'breakout160': 7.894, 'breakout20': 7.26, 'breakout320': 10.453, 'breakout40': 6.72, 'breakout80': 6.42}

ann. mean {'breakout10': 4.142, 'breakout160': 7.894, 'breakout20': 7.26, 'breakout320': 10.453, 'breakout40': 6.72, 'breakout80': 6.42} ann. std {'breakout10': 15.802, 'breakout160': 9.146, 'breakout20': 11.21, 'breakout320': 13.352, 'breakout40': 9.838, 'breakout80': 9.017} ann. SR {'breakout10': 0.26, 'breakout160': 0.86, 'breakout20': 0.55, 'breakout320': 0.78, 'breakout40': 0.68, 'breakout80': 0.71}



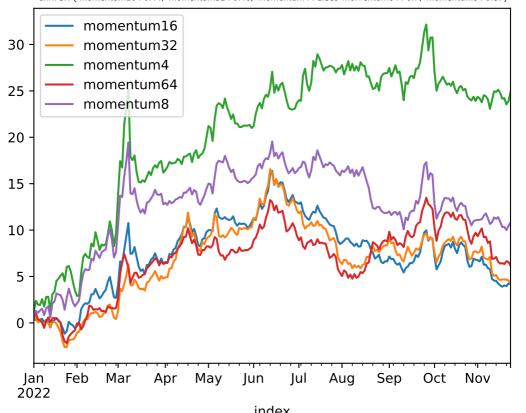
Total Trading Rule P&L for period '99Y'

ann. mean {'breakout10': -0.06, 'breakout160': 11.642, 'breakout20': 10.522, 'breakout320': 11.943, 'breakout40': 10.42, 'breakout80': 13.312} ann. std {'breakout10': 20.854, 'breakout160': 12.509, 'breakout20': 16.117, 'breakout320': 13.062, 'breakout40': 13.245, 'breakout80': 12.768} ann. SR {'breakout10': -0.0, 'breakout160': 0.93, 'breakout20': 0.65, 'breakout320': 0.91, 'breakout40': 0.79, 'breakout80': 1.04}



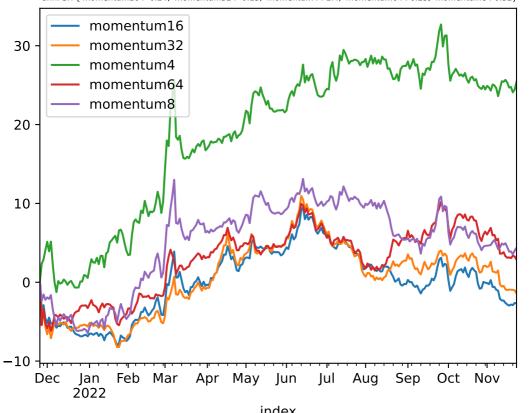
Total Trading Rule P&L for period 'YTD'

ann. mean {'momentum16': 4.592, 'momentum32': 4.607, 'momentum4': 27.343, 'momentum64': 6.766, 'momentum8': 11.885} ann. std {'momentum16': 10.428, 'momentum32': 10.093, 'momentum4': 17.918, 'momentum64': 9.693, 'momentum8': 13.666} ann. SR {'momentum16': 0.44, 'momentum32': 0.46, 'momentum4': 1.53, 'momentum64': 0.7, 'momentum8': 0.87}



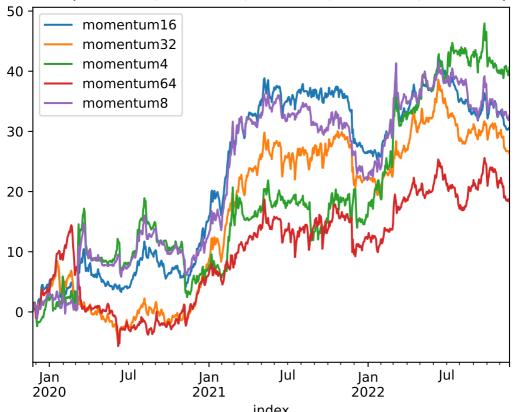
Total Trading Rule P&L for period '1Y'

ann. mean {'momentum16': -2.641, 'momentum32': -1.404, 'momentum4': 25.038, 'momentum64': 2.829, 'momentum8': 4.304} ann. std {'momentum16': 10.875, 'momentum32': 11.171, 'momentum4': 17.821, 'momentum64': 11.443, 'momentum68': 13.57} ann. SR {'momentum16': -0.24, 'momentum32': -0.13, 'momentum4': 1.4, 'momentum64': 0.25, 'momentum88': 0.32}



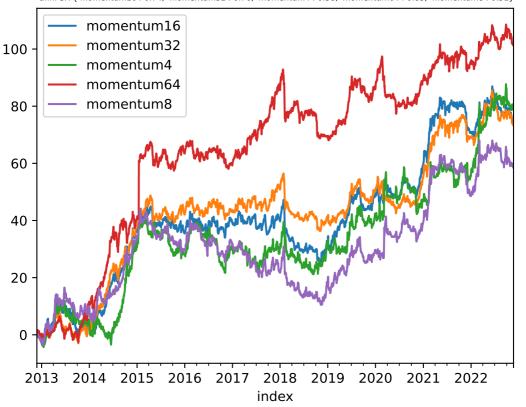
Total Trading Rule P&L for period '3Y'

ann. mean {'momentum16': 9.988, 'momentum32': 8.582, 'momentum4': 13.297, 'momentum64': 5.972, 'momentum8: 10.69} ann. std {'momentum16': 11.093, 'momentum32': 10.937, 'momentum4': 16.056, 'momentum64': 11.062, 'momentum8: 12.776} ann. SR {'momentum16': 0.9, 'momentum32': 0.78, 'momentum4': 0.83, 'momentum64': 0.54, 'momentum8': 0.84}



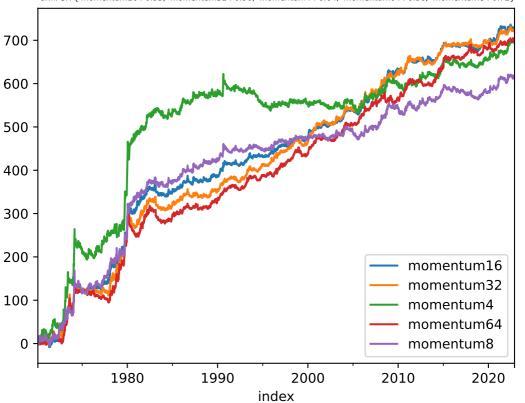
Total Trading Rule P&L for period '10Y'

ann. mean {'momentum16': 7.339, 'momentum32': 7.186, 'momentum4': 7.895, 'momentum64': 9.942, 'momentum8': 5.822} ann. std {'momentum16': 9.951, 'momentum32': 9.51, 'momentum4': 13.674, 'momentum64': 12.013, 'momentum8': 11.314} ann. SR {'momentum16': 0.74, 'momentum32': 0.76, 'momentum4': 0.58, 'momentum64': 0.83, 'momentum8': 0.51}



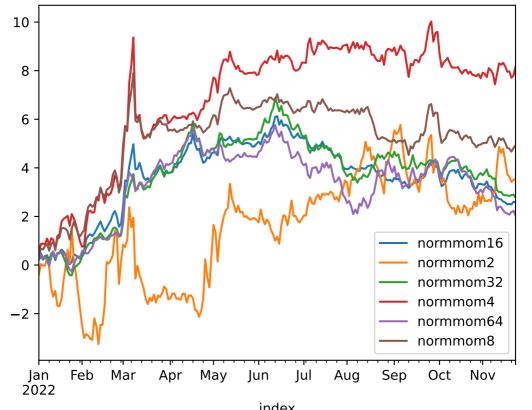
Total Trading Rule P&L for period '99Y'

ann. mean {'momentum16': 13.46, 'momentum32': 13.37, 'momentum4': 12.933, 'momentum64': 12.969, 'momentum8: 11.377} ann. std {'momentum16': 14.236, 'momentum32': 13.868, 'momentum4': 20.095, 'momentum64': 13.503, 'momentum8: 15.886} ann. SR {'momentum16': 0.95, 'momentum32': 0.96, 'momentum4': 0.64, 'momentum64': 0.96, 'momentum8': 0.72}



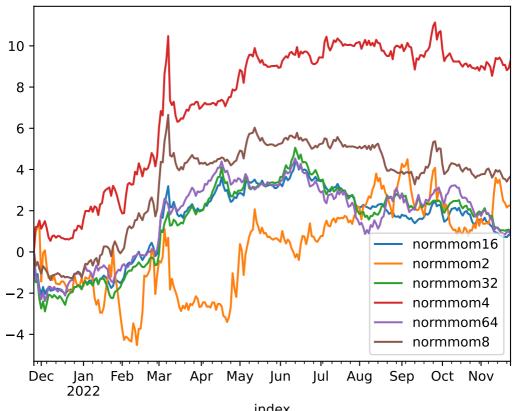
Total Trading Rule P&L for period 'YTD'

ann. mean {'normmom16': 2.838, 'normmom2': 3.871, 'normmom32': 3.055, 'normmom4': 8.974, 'normmom64': 2.239, 'normmom8': 5.411} ann. std {'normmom16': 3.233, 'normmom2': 8.388, 'normmom32': 3.311, 'normmom4': 6.189, 'normmom64': 3.544, 'normmom8': 4.415} ann. SR {'normmom16': 0.88, 'normmom2': 0.46, 'normmom32': 0.92, 'normmom4': 1.45, 'normmom64': 0.63, 'normmom8': 1.23}



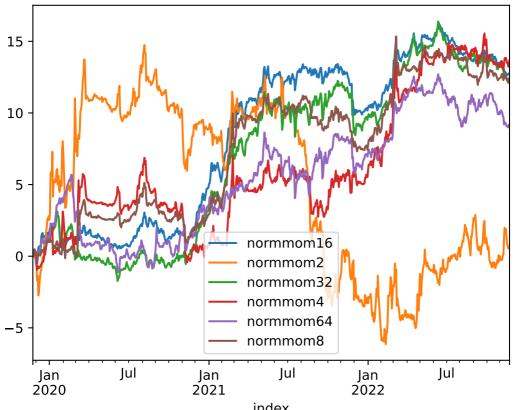
Total Trading Rule P&L for period '1Y'

ann. mean {'normmom16': 0.792, 'normmom2': 2.22, 'normmom32': 0.947, 'normmom4': 9.135, 'normmom64': 0.802, 'normmom8': 3.617} ann. std {'normmom16': 3.462, 'normmom2': 8.703, 'normmom32': 3.783, 'normmom4': 6.047, 'normmom64': 3.847, 'normmom8': 4.321} ann. SR {'normmom16': 0.23, 'normmom2': 0.26, 'normmom32': 0.25, 'normmom4': 1.51, 'normmom64': 0.21, 'normmom8': 0.84}



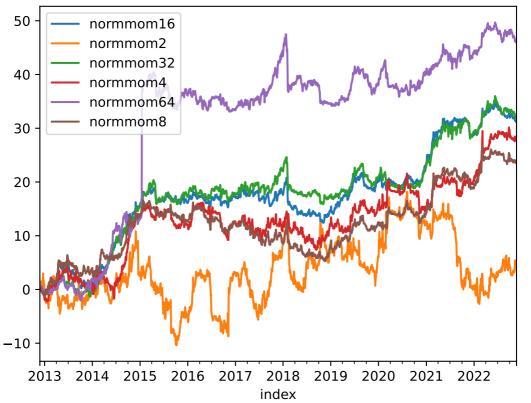
Total Trading Rule P&L for period '3Y'

ann. mean {'normmom16': 4.168, 'normmom2': 0.209, 'normmom32': 4.02, 'normmom4': 4.477, 'normmom64': 2.937, 'normmom8': 4.041} ann. std {'normmom16': 3.741, 'normmom2': 8.956, 'normmom32': 4.063, 'normmom4': 5.932, 'normmom64': 4.381, 'normmom8': 4.262} ann. SR {'normmom16': 1.11, 'normmom2': 0.02, 'normmom32': 0.99, 'normmom4': 0.75, 'normmom64': 0.67, 'normmom8': 0.95}



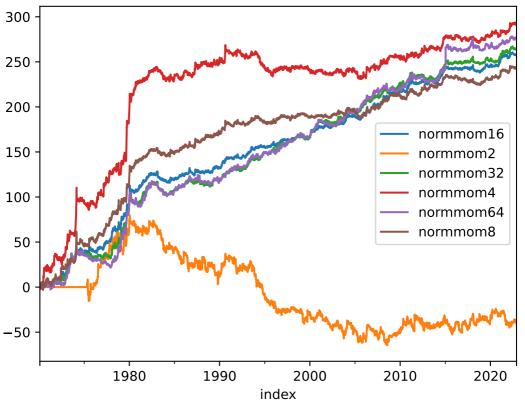
Total Trading Rule P&L for period '10Y'

ann. mean {'normmom16': 3.071, 'normmom2': 0.4, 'normmom32': 3.132, 'normmom4': 2.777, 'normmom64': 4.512, 'normmom8': 2.328} ann. std {'normmom16': 3.58, 'normmom2': 9.109, 'normmom32': 3.735, 'normmom4': 5.495, 'normmom64': 8.563, 'normmom8': 4.055} ann. SR {'normmom16': 0.86, 'normmom2': 0.04, 'normmom32': 0.84, 'normmom4': 0.51, 'normmom64': 0.53, 'normmom8': 0.57}



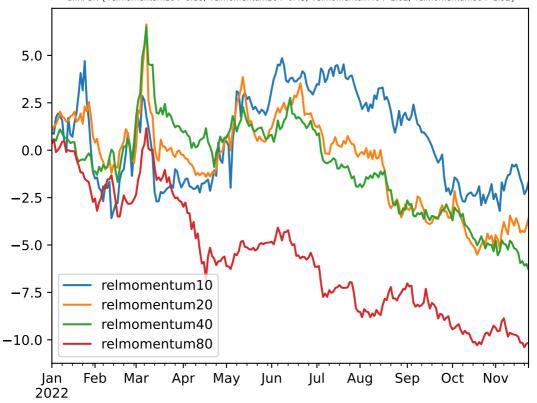
Total Trading Rule P&L for period '99Y'

ann. mean {'normmom16': 4.775, 'normmom2': -0.706, 'normmom32': 4.891, 'normmom4': 5.423, 'normmom64': 5.1, 'normmom8': 4.508} ann. std {'normmom16': 4.928, 'normmom2': 11.211, 'normmom32': 4.997, 'normmom4': 8.33, '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'

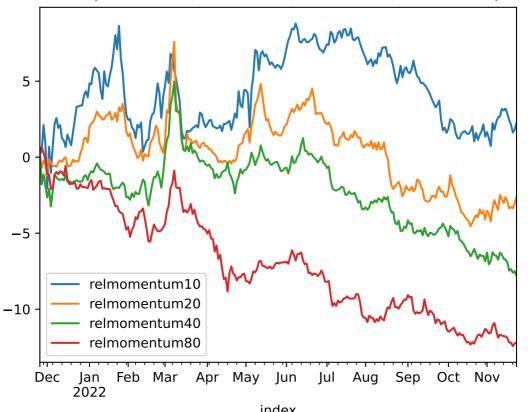
ann. mean {'relmomentum10': -1.857, 'relmomentum20': -3.947, 'relmomentum40': -6.912, 'relmomentum80': -11.165} ann. std {'relmomentum10': 10.404, 'relmomentum20': 8.728, 'relmomentum40': 6.749, 'relmomentum80': 5.809} ann. SR {'relmomentum10': -0.18, 'relmomentum20': -0.45, 'relmomentum40': -1.02, 'relmomentum80': -1.92}



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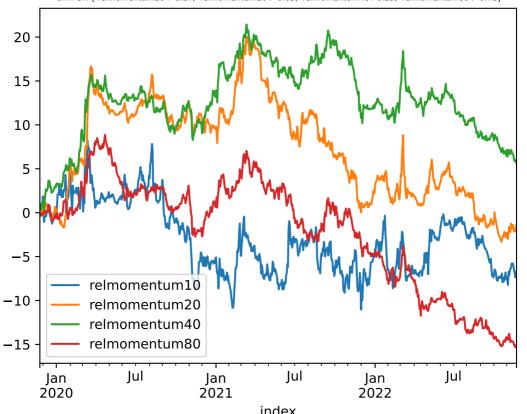
Total Trading Rule P&L for period '1Y'

ann. mean {'relmomentum10': 2.216, 'relmomentum20': -2.587, 'relmomentum40': -7.678, 'relmomentum80': -12.017} ann. std {'relmomentum10': 11.436, 'relmomentum20': 8.519, 'relmomentum40': 7.166, 'relmomentum80': 5.916} ann. SR {'relmomentum10': 0.19, 'relmomentum20': -0.3, 'relmomentum40': -1.07, 'relmomentum80': -2.03}



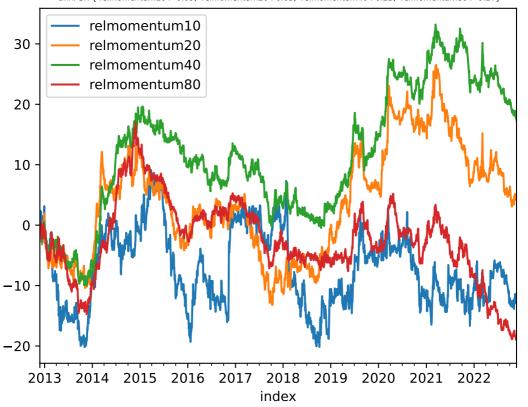
Total Trading Rule P&L for period '3Y'

ann. mean {'relmomentum10': -2.197, 'relmomentum20': -0.457, 'relmomentum40': 1.838, 'relmomentum80': -4.933} ann. std {'relmomentum10': 1.279, 'relmomentum40': 7.493, 'relmomentum40': 6.96} ann. SR {'relmomentum10': -0.17, 'relmomentum20': -0.05, 'relmomentum40': 0.25, 'relmomentum80': -0.71}



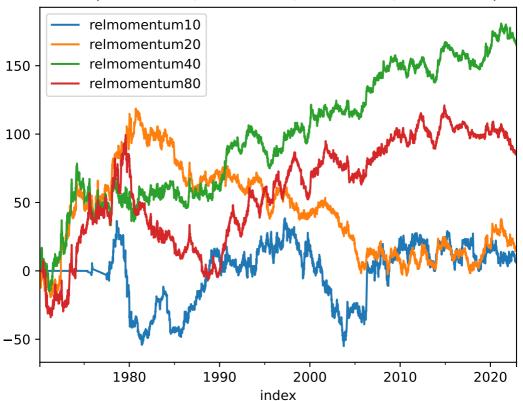
Total Trading Rule P&L for period '10Y'

ann. mean {'relmomentum10': -1.212, 'relmomentum20': 0.49, 'relmomentum40': 1.708, 'relmomentum80': -1.84} ann. std {'relmomentum10': 13.024, 'relmomentum40': 9.057, 'relmomentum40': 7.387, 'relmomentum80': 6.849} ann. SR {'relmomentum10': -0.09, 'relmomentum20': 0.05, 'relmomentum40': 0.23. 'relmomentum80': -0.27}



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

ann. mean {'relmomentum10': 0.142, 'relmomentum20': 0.306, 'relmomentum40': 3.067, 'relmomentum80': 1.584} ann. std {'relmomentum10': 13.334, 'relmomentum20': 11.534, 'relmomentum40': 10.804, 'relmomentum80': 11.071} ann. SR {'relmomentum10': 0.01, 'relmomentum20': 0.03, 'relmomentum40': 0.28, 'relmomentum80': 0.14}

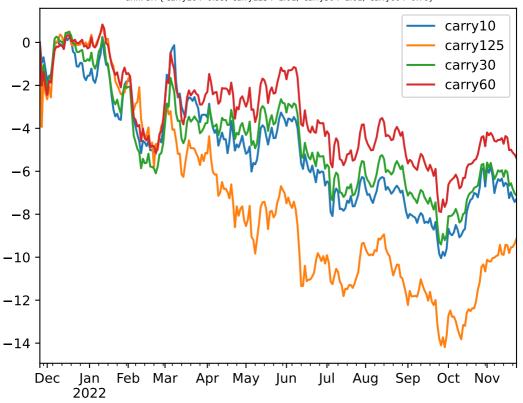


Total Trading Rule P&L for period 'YTD'
ann. mean {'carry10': -6.295, 'carry125': -9.853, 'carry30': -6.977, 'carry60': -5.617}
ann. std {'carry10': 7.325, 'carry125': 7.655, 'carry30': 6.862, 'carry60': 6.855}
ann. SR {'carry10': -0.86, 'carry125': -1.29, 'carry30': -1.02, 'carry60': -0.82}



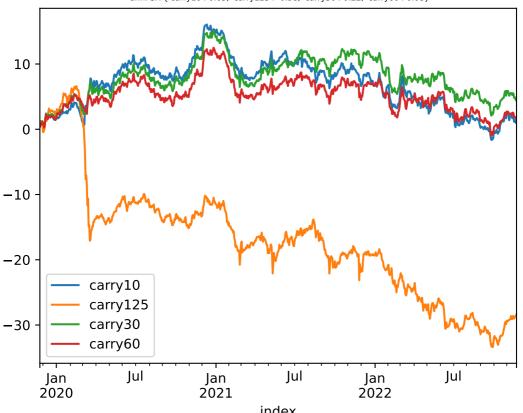
index

Total Trading Rule P&L for period '1Y'
ann. mean {'carry10': -7.168, 'carry125': -8.998, 'carry30': -7.021, 'carry60': -5.313}
ann. std {'carry10': 7.224, 'carry125': 8.941, 'carry30': 6.95, 'carry60': 6.991}
ann. SR {'carry10': -0.99, 'carry125': -1.01, 'carry30': -1.01, 'carry60': -0.76}

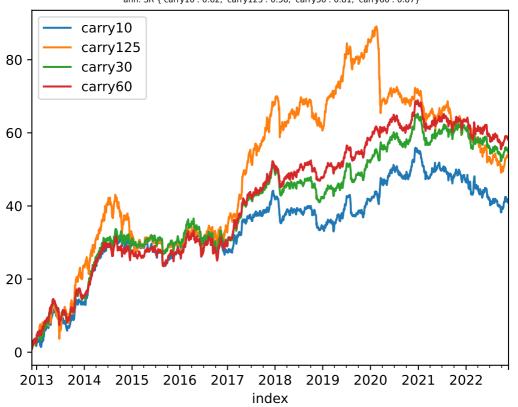


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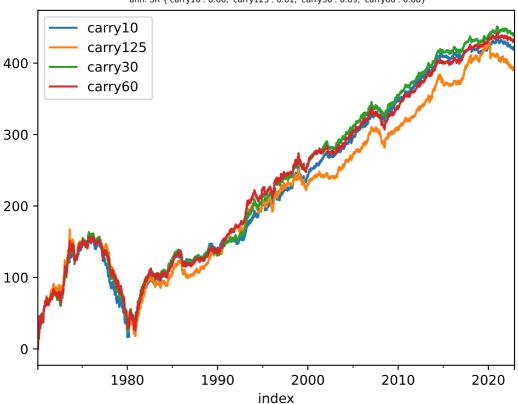
Total Trading Rule P&L for period '3Y' ann. mean {'carry10': 0.365, 'carry125': -9.266, 'carry30': 1.426, 'carry60': 0.499} ann. std {'carry10': 6.808, 'carry125': 9.448, 'carry30': 6.609, 'carry60': 6.542} ann. SR {'carry10': 0.05, 'carry125': -0.98, 'carry30': 0.22, 'carry60': 0.08}



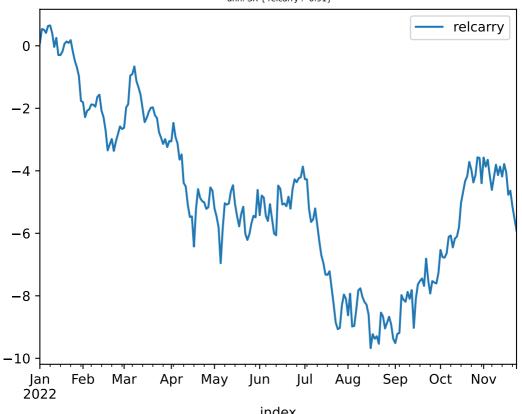
Total Trading Rule P&L for period '10Y' ann. mean {'carry10': 4.022, 'carry125': 5.314, 'carry30': 5.35, 'carry60': 5.69} ann. std {'carry10': 6.474, 'carry125': 9.132, 'carry30': 6.585, 'carry60': 6.548} ann. SR {'carry10': 0.62, 'carry125': 0.58, 'carry30': 0.81, 'carry60': 0.87}



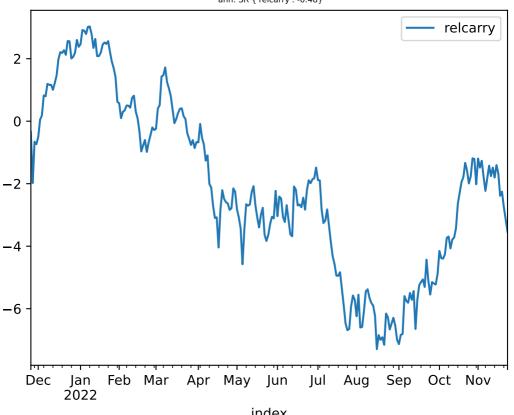
Total Trading Rule P&L for period '99Y'
ann. mean {'carry10': 7.83, 'carry125': 7.342, 'carry30': 8.186, 'carry60': 8.024}
ann. std {'carry10': 11.869, 'carry125': 12.108, 'carry30': 11.88, 'carry60': 11.83}
ann. SR {'carry10': 0.66, 'carry125': 0.61, 'carry30': 0.69, 'carry60': 0.68}



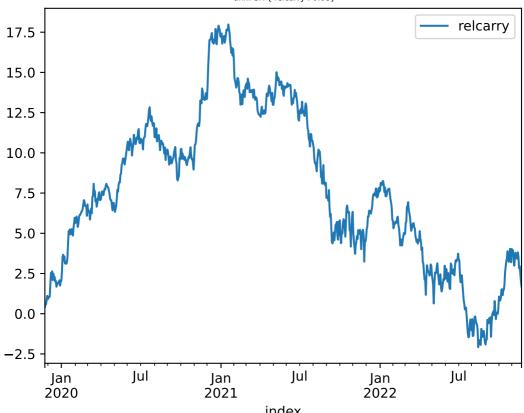
Total Trading Rule P&L for period 'YTD' ann. mean {'relcarry': -6.499} ann. std {'relcarry': 7.17} ann. SR {'relcarry': -0.91}



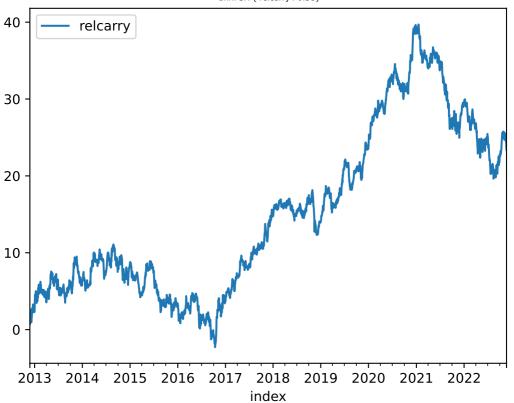
Total Trading Rule P&L for period '1Y' ann. mean {'relcarry': -3.48} ann. std {'relcarry': 7.266} ann. SR {'relcarry': -0.48}



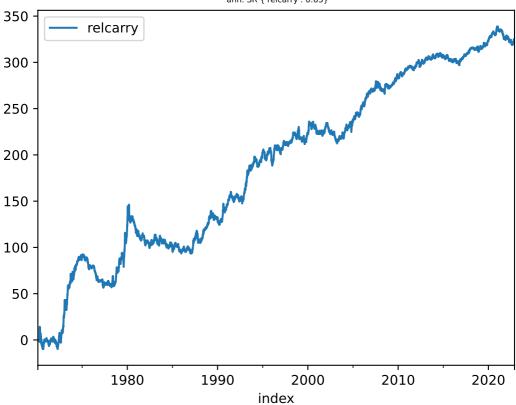
Total Trading Rule P&L for period '3Y' ann. mean {'relcarry': 0.55} ann. std {'relcarry': 6.8} ann. SR {'relcarry': 0.08}



Total Trading Rule P&L for period '10Y' ann. mean {'relcarry': 2.297} ann. std {'relcarry': 6.058} ann. SR {'relcarry': 0.38}



Total Trading Rule P&L for period '99Y' ann. mean {'relcarry': 5.993} ann. std {'relcarry': 9.563} ann. SR {'relcarry': 0.63}



Total Trading Rule P&L for period 'YTD' ann. mean {'skewabs180': 5.735, 'skewabs365': 0.284, 'skewrv180': -1.049, 'skewrv365': 12.744}

ann. std {'skewabs180': 10.05, 'skewabs365': 7.721, 'skewrv180': 9.443, 'skewrv365': 4.881} ann. SR {'skewabs180': 0.57, 'skewabs365': 0.04, 'skewrv180': -0.11, 'skewrv365': 2.61}

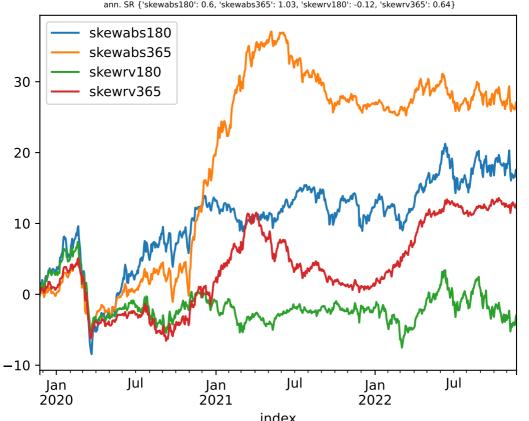


Total Trading Rule P&L for period '1Y'

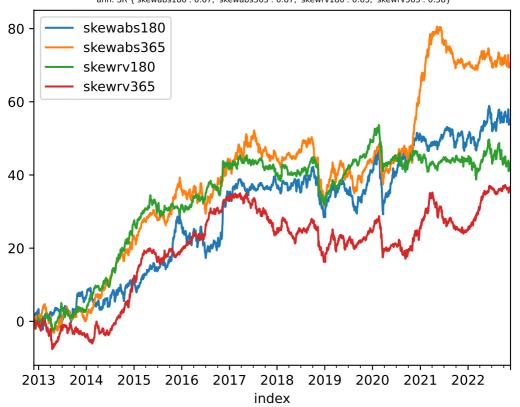
ann. mean {'skewabs180': 5.011, 'skewabs365': 0.446, 'skewrv180': -0.029, 'skewrv365': 11.466} ann. std {'skewabs180': 10.317, 'skewabs365': 7.434, 'skewrv180': 9.237, 'skewrv365': 4.854} ann. SR {'skewabs180': 0.49, 'skewabs365': 0.06, 'skewrv180': -0.0, 'skewrv365': 2.36}



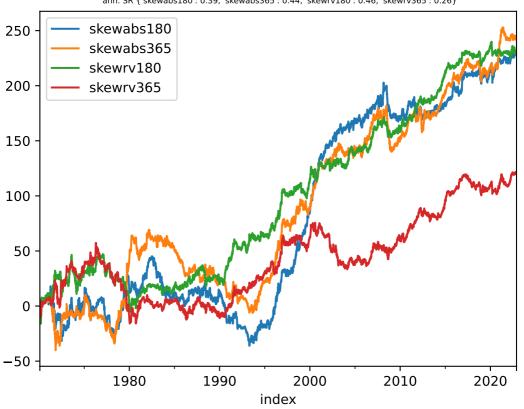
Total Trading Rule P&L for period '3Y' ann. mean {'skewabs180': 5.736, 'skewabs365': 8.87, 'skewrv180': -0.951, 'skewrv365': 4.181} ann. std {'skewabs180': 9.586, 'skewabs365': 8.652, 'skewrv180': 7.759, 'skewrv365': 6.555} ann. SR {'skewabs180': 0.6, 'skewabs365': 1.03, 'skewrv180': -0.12, 'skewrv365': 0.64}



Total Trading Rule P&L for period '10Y'
ann. mean {'skewabs180': 5.418, 'skewabs365': 6.933, 'skewrv180': 4.256, 'skewrv365': 3.579}
ann. std {'skewabs180': 8.069, 'skewabs365': 7.982, 'skewrv180': 6.573, 'skewrv365': 6.19}
ann. SR {'skewabs180': 0.67, 'skewabs365': 0.87, 'skewrv180': 0.65, 'skewry365': 0.58}



Total Trading Rule P&L for period '99Y'
ann. mean {'skewabs180': 4.248, 'skewabs365': 4.514, 'skewrv180': 4.267, 'skewrv365': 2.245}
ann. std {'skewabs180': 10.795, 'skewabs365': 10.3, 'skewrv180': 9.31, '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': 9.18', 'mrwrings4': 0.802} ann. std {'mrinasset160': 6.364, 'mrwrings4': 1.565} ann. SR {'mrinasset160': 1.45, 'mrwrings4': 0.51}

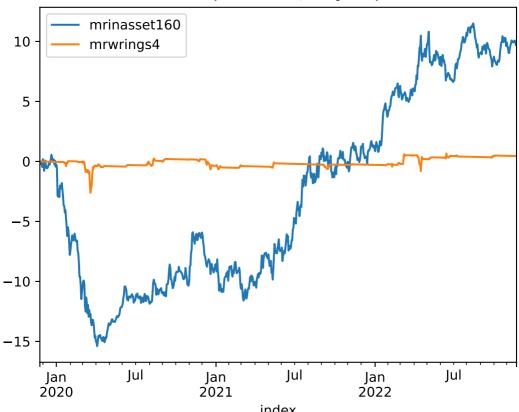


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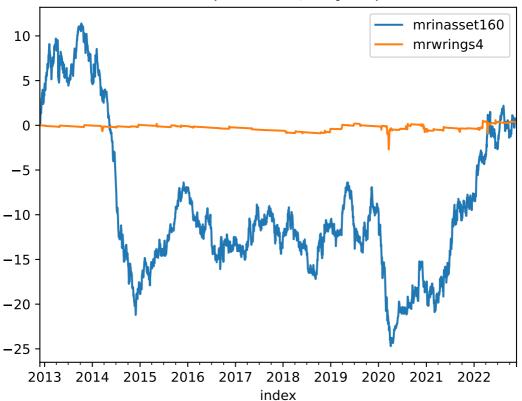
Total Trading Rule P&L for period '17' ann. mean { 'mrinasset160': 9.25, 'mrwrings4': 0.685} ann. std { 'mrinasset160': 6.276, 'mrwrings4': 1.481} ann. SR { 'mrinasset160': 1.47, 'mrwrings4': 0.46}



Total Trading Rule P&L for period '3Y' ann. mean {'mrinasset160': 3.167, 'mrwrings4': 0.145} ann. std {'mrinasset160': 7.088, 'mrwrings4': 1.535} ann. SR {'mrinasset160': 0.45, 'mrwrings4': 0.09}



Total Trading Rule P&L for period '10Y' ann. mean {'mrinasset160': 0.038, 'mrwrings4': 0.035} ann. std {'mrinasset160': 6.659, 'mrwrings4': 0.897} ann. SR {'mrinasset160': 0.01, 'mrwrings4': 0.04}



Total Trading Rule P&L for period '99Y' ann. mean {'mrinasset160': -3.389, 'mrwrings4': -1.176} ann. std {'mrinasset160': 10.93, 'mrwrings4': 2.633} ann. SR {'mrinasset160': -0.31, 'mrwrings4': -0.45}

