

# Asset Management

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M2 272 Quant

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# Summary

1 Introduction

2 Results

3 Conclusion

# Introduction - Strategies

- Backtesting of cross-sectional strategies based on:
  - momentum, long only (cs\_mom\_lo)
    - 12-month minus 1-month (to avoid reversal effect)
  - idiosyncratic momentum, long only (cs\_idio\_mom\_lo)
    - 12-month minus 1-month (to avoid reversal effect)
  - reversal, long only (cs\_rev\_lo)
    - 1-month
  - idiosyncratic reversal, long only (cs\_idio\_rev\_lo)
    - 1-month
  - sharpe ratio, long only (cs\_sr\_lo)
    - 12-month rolling window
  - idiosyncratic sharpe ratio, long only (cs\_idio\_sr\_lo)
    - 12-month rolling window
- *Idiosyncratic -> we regressed stock returns against 1 factor: market returns*

# Introduction - Hyperparameters

- Parametrization of the strategies:
  - percentiles
    - top10%
    - top20%
    - top25%
  - industry segmentation
    - cross-industries
    - within industry
  - rebalancing frequency
    - monthly
    - quarterly
    - semi-annualy
    - yearly
- Grid-Search: 6 strategies \* 24 parametrizations = 144 couples strategy-hyperparameters

# Introduction - Strategies Construction and Assessment

- Strategy construction

- Signal computation:

- cross-sectional monthly z-scores
    - winsorized at (1,99) percentiles
    - long top x%

- Weighting Scheme:

- Equally-Weighted
    - Transaction Costs of 0 bps per rebalancing date

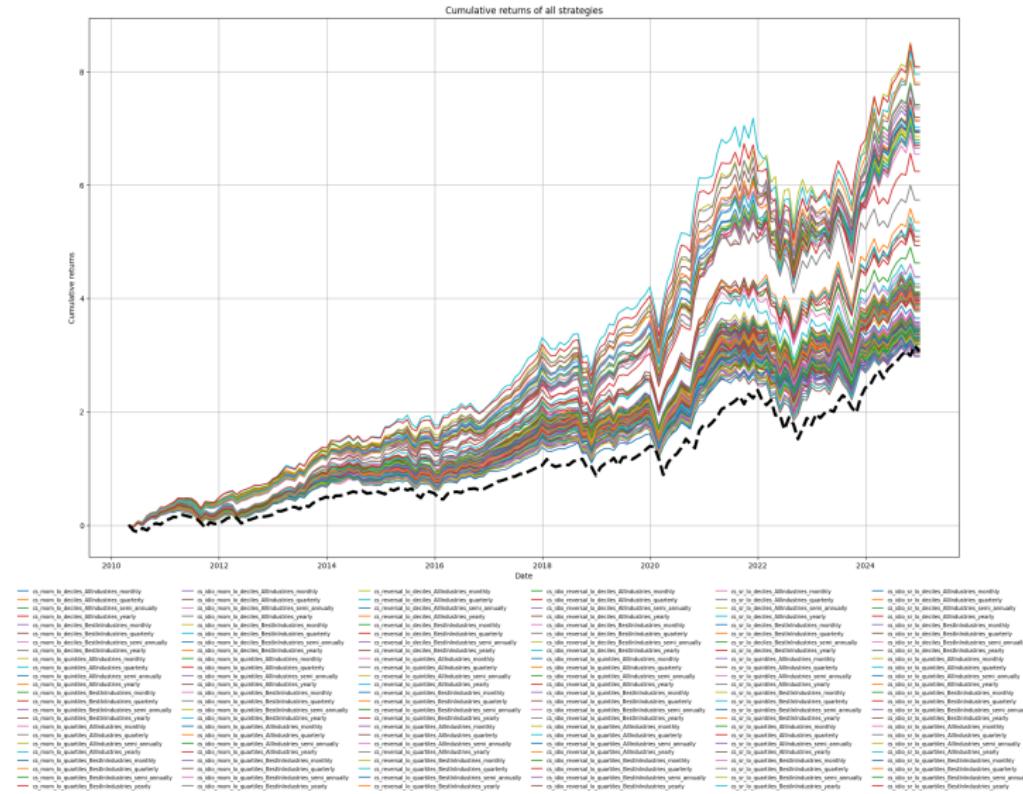
- Strategies Assessment

- Total Return
  - Annualized Return
  - Annualized Volatility
  - **Sharpe Ratio** ( $rf=0.0$ )
  - Maximum DrawDown

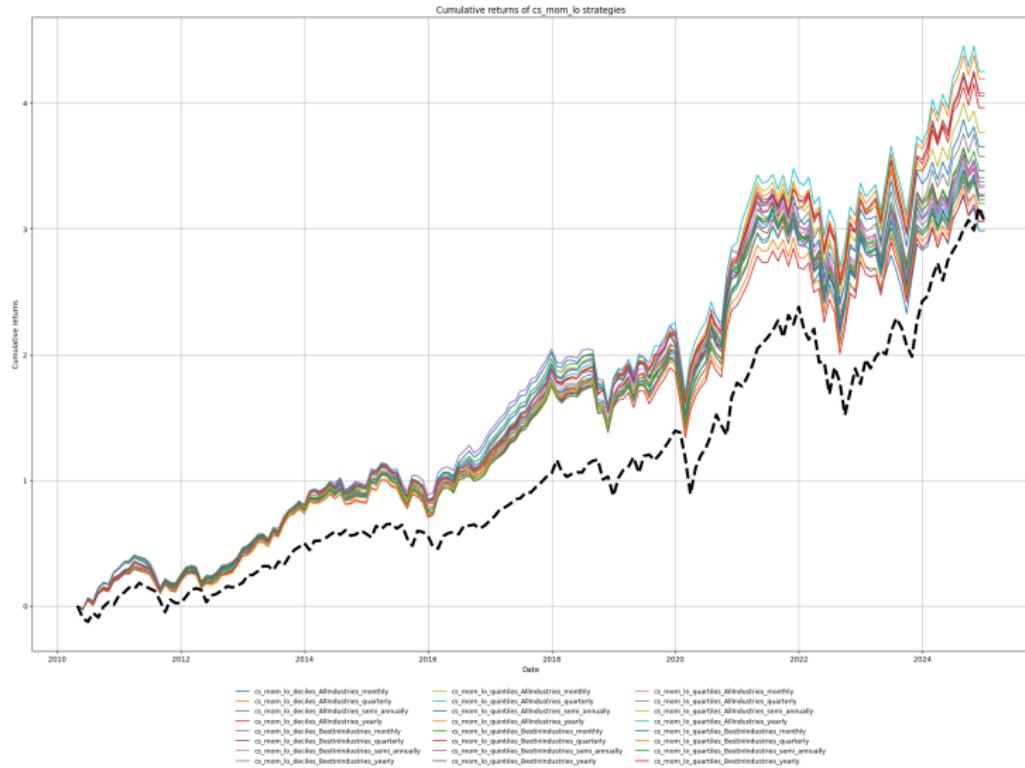
# Introduction - Data

- Data:
  - MSCI World (market and benchmark)
  - MSCI World components form our universe
  - Dates: from 30-April-2007 to 31-Dec-2024

# Overall Plot



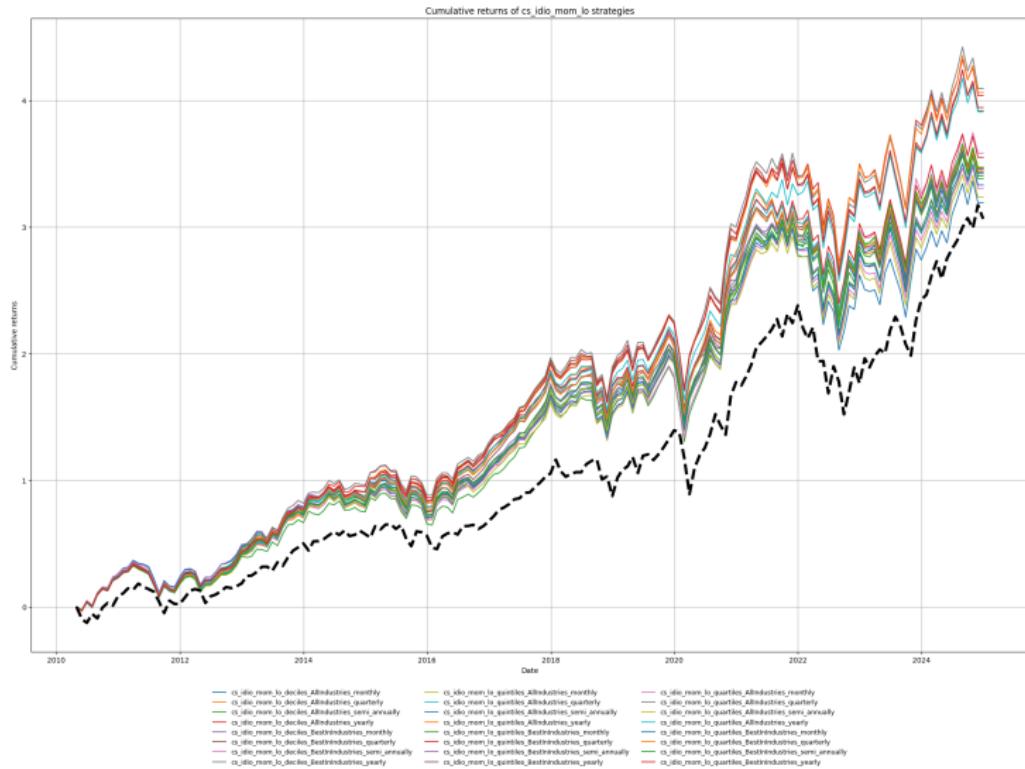
# Cumulated Performance Plot - cs\_mom\_lo



# Summary Table - Metrics - cs\_mom\_lo

|                         | cs_mom_lo_deciles_AllIndustries_monthly      | cs_mom_lo_deciles_AllIndustries_quarterly      | cs_mom_lo_deciles_AllIndustries_semi_annually      | cs_mom_lo_deciles_AllIndustries_yearly      |
|-------------------------|--|--|--|---|
| total_return            | 267,9%                                       | 294,8%   | 304,0%   | 358,1%                                      |
| annualized_return       | 9,2%   | 9,8%   | 9,9%   | 10,9%                                       |
| annualized_volatility   | 14,6%  | 14,0%  | 13,9%  | 13,5%                                       |
| annualized_sharpe_ratio | 0,63   | 0,70   | 0,71   | 0,81  |
| max_drawdown            | -25,2%                                       | -21,3%   | -22,5%   | -16,8%                                      |
|                         | cs_mom_lo_deciles_BestInIndustries_monthly   | cs_mom_lo_deciles_BestInIndustries_quarterly   | cs_mom_lo_deciles_BestInIndustries_semi_annually   | cs_mom_lo_deciles_BestInIndustries_yearly   |
| total_return            | 277,6%                                       | 299,3%   | 297,9%   | 320,7%                                      |
| annualized_return       | 9,4%   | 9,8%   | 9,8%   | 10,2%                                       |
| annualized_volatility   | 14,5%  | 13,8%  | 13,9%  | 13,5%                                       |
| annualized_sharpe_ratio | 0,65   | 0,71   | 0,70   | 0,76  |
| max_drawdown            | -25,2%                                       | -21,1%   | -21,5%   | -17,5%                                      |
|                         | cs_mom_lo_quintiles_AllIndustries_monthly    | cs_mom_lo_quintiles_AllIndustries_quarterly    | cs_mom_lo_quintiles_AllIndustries_semi_annually    | cs_mom_lo_quintiles_AllIndustries_yearly    |
| total_return            | 288,3%                                       | 291,7%   | 327,1%   | 376,8%                                      |
| annualized_return       | 9,6%   | 9,7%   | 10,3%  | 11,2%                                       |
| annualized_volatility   | 14,4%  | 14,2%  | 13,9%  | 13,5%                                       |
| annualized_sharpe_ratio | 0,67   | 0,68   | 0,74   | 0,83  |
| max_drawdown            | -23,2%                                       | -21,5%   | -20,4%   | -16,9%                                      |
|                         | cs_mom_lo_quintiles_BestInIndustries_monthly | cs_mom_lo_quintiles_BestInIndustries_quarterly | cs_mom_lo_quintiles_BestInIndustries_semi_annually | cs_mom_lo_quintiles_BestInIndustries_yearly |
| total_return            | 285,6%                                       | 272,7%   | 304,5%   | 366,6%                                      |
| annualized_return       | 9,6%   | 9,3%   | 9,9%   | 11,0%                                       |
| annualized_volatility   | 14,3%  | 14,0%  | 13,8%  | 13,5%                                       |
| annualized_sharpe_ratio | 0,67   | 0,67   | 0,72   | 0,82  |
| max_drawdown            | -23,5%                                       | -21,8%   | -21,1%   | -17,1%                                      |
|                         | cs_mom_lo_quartiles_AllIndustries_monthly    | cs_mom_lo_quartiles_AllIndustries_quarterly    | cs_mom_lo_quartiles_AllIndustries_semi_annually    | cs_mom_lo_quartiles_AllIndustries_yearly    |
| total_return            | 298,5%                                       | 288,1%   | 336,9%   | 381,4%                                      |
| annualized_return       | 9,8%   | 9,6%   | 10,5%  | 11,2%                                       |
| annualized_volatility   | 14,3%  | 14,1%  | 13,9%  | 13,6%                                       |
| annualized_sharpe_ratio | 0,69   | 0,68   | 0,76   | 0,83  |
| max_drawdown            | -22,9%                                       | -21,8%   | -20,5%   | -17,6%                                      |
|                         | cs_mom_lo_quartiles_BestInIndustries_monthly | cs_mom_lo_quartiles_BestInIndustries_quarterly | cs_mom_lo_quartiles_BestInIndustries_semi_annually | cs_mom_lo_quartiles_BestInIndustries_yearly |
| total_return            | 290,7%                                       | 278,9%   | 309,1%   | 363,8%                                      |
| annualized_return       | 9,7%   | 9,5%   | 10,0%  | 11,0%                                       |
| annualized_volatility   | 14,3%  | 14,0%  | 13,8%  | 13,5%                                       |
| annualized_sharpe_ratio | 0,68   | 0,68   | 0,73   | 0,81  |
| max_drawdown            | -23,3%                                       | -21,9%   | -20,5%   | -17,7%                                      |

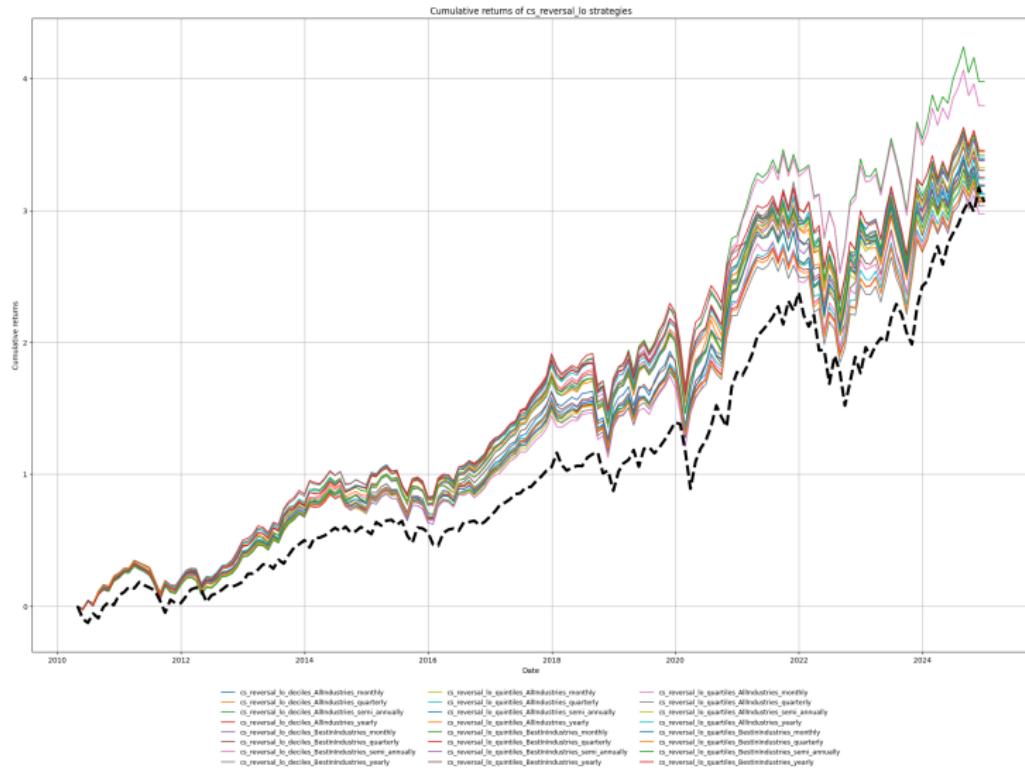
# Cumulated Performance Plot - cs\_idio\_mom\_lo



# Summary Table - Metrics - cs\_idio\_mom\_lo

|                         | cs_idio_mom_lo_deciles_AllIndustries_monthly      | cs_idio_mom_lo_deciles_AllIndustries_quarterly      | cs_idio_mom_lo_deciles_AllIndustries_semi_annually      | cs_idio_mom_lo_deciles_AllIndustries_yearly      |
|-------------------------|---|---|---|--|
| total_return            | 282.8%  | 307.6%  | 302.1%  | 360.1%   |
| annualized_return       | 9.5%  | 10.0%   | 9.9%  | 10.9%  |
| annualized_volatility   | 14.6%   | 14.3%   | 14.2%   | 13.8%  |
| annualized_sharpe_ratio | 0.65  | 0.70  | 0.70  | 0.79   |
| max_drawdown            | -24.4%  | -22.6%  | -20.4%  | -18.8%   |
|                         | cs_idio_mom_lo_deciles_BestInIndustries_monthly   | cs_idio_mom_lo_deciles_BestInIndustries_quarterly   | cs_idio_mom_lo_deciles_BestInIndustries_semi_annually   | cs_idio_mom_lo_deciles_BestInIndustries_yearly   |
| total_return            | 303.7%  | 305.6%  | 318.5%  | 365.1%   |
| annualized_return       | 9.9%  | 10.0%   | 10.2%   | 11.0%  |
| annualized_volatility   | 14.6%   | 14.3%   | 14.1%   | 13.8%  |
| annualized_sharpe_ratio | 0.68  | 0.70  | 0.72  | 0.80   |
| max_drawdown            | -23.3%  | -20.5%  | -19.6%  | -19.9%   |
|                         | cs_idio_mom_lo_quintiles_AllIndustries_monthly    | cs_idio_mom_lo_quintiles_AllIndustries_quarterly    | cs_idio_mom_lo_quintiles_AllIndustries_semi_annually    | cs_idio_mom_lo_quintiles_AllIndustries_yearly    |
| total_return            | 286.9%  | 307.9%  | 304.1%  | 362.5%   |
| annualized_return       | 9.6%  | 10.0%   | 9.9%  | 10.9%  |
| annualized_volatility   | 14.4%   | 14.1%   | 14.0%   | 13.8%  |
| annualized_sharpe_ratio | 0.67  | 0.71  | 0.73  | 0.79   |
| max_drawdown            | -21.9%  | -20.6%  | -19.8%  | -19.1%   |
|                         | cs_idio_mom_lo_quintiles_BestInIndustries_monthly | cs_idio_mom_lo_quintiles_BestInIndustries_quarterly | cs_idio_mom_lo_quintiles_BestInIndustries_semi_annually | cs_idio_mom_lo_quintiles_BestInIndustries_yearly |
| total_return            | 300.6%  | 316.1%  | 307.5%  | 349.6%   |
| annualized_return       | 9.9%  | 10.1%   | 10.0%   | 10.7%  |
| annualized_volatility   | 14.4%   | 14.1%   | 14.0%   | 13.7%  |
| annualized_sharpe_ratio | 0.69  | 0.72  | 0.72  | 0.78   |
| max_drawdown            | -21.6%  | -19.6%  | -19.5%  | -19.5%   |
|                         | cs_idio_mom_lo_quartiles_AllIndustries_monthly    | cs_idio_mom_lo_quartiles_AllIndustries_quarterly    | cs_idio_mom_lo_quartiles_AllIndustries_semi_annually    | cs_idio_mom_lo_quartiles_AllIndustries_yearly    |
| total_return            | 293.3%  | 308.6%  | 308.7%  | 348.6%   |
| annualized_return       | 9.7%  | 10.0%   | 10.0%   | 10.7%  |
| annualized_volatility   | 14.4%   | 14.1%   | 13.9%   | 13.8%  |
| annualized_sharpe_ratio | 0.68  | 0.71  | 0.72  | 0.77   |
| max_drawdown            | -22.2%  | -20.8%  | -19.5%  | -18.8%   |
|                         | cs_idio_mom_lo_quartiles_BestInIndustries_monthly | cs_idio_mom_lo_quartiles_BestInIndustries_quarterly | cs_idio_mom_lo_quartiles_BestInIndustries_semi_annually | cs_idio_mom_lo_quartiles_BestInIndustries_yearly |
| total_return            | 295.9%  | 305.5%  | 308.0%  | 351.8%   |
| annualized_return       | 9.8%  | 10.0%   | 10.0%   | 10.8%  |
| annualized_volatility   | 14.5%   | 14.0%   | 13.9%   | 13.8%  |
| annualized_sharpe_ratio | 0.68  | 0.71  | 0.72  | 0.78   |
| max_drawdown            | -21.5%  | -20.3%  | -19.5%  | -19.7%   |

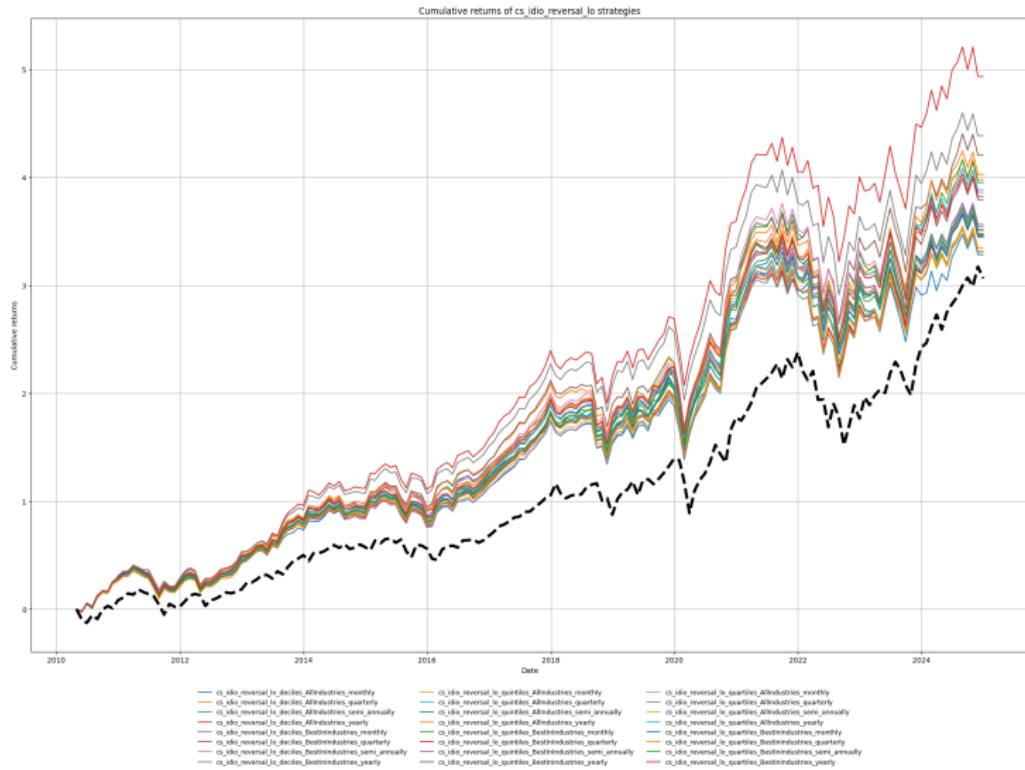
# Cumulated Performance Plot - cs\_rev\_lo



# Summary Table - Metrics - cs\_rev\_lo

|                         | cs_reversal_lo_deciles_AllIndustries_monthly    | cs_reversal_lo_deciles_AllIndustries_quarterly    | cs_reversal_lo_deciles_AllIndustries_semi_annually    | cs_reversal_lo_deciles_AllIndustries_yearly    |
|-------------------------|---|---|---|--|
| total_return            | 277,5%  | 306,7%  | 355,6%  | 289,3%   |
| annualized_return       | 9,4%  | 10,0%   | 10,8%   | 9,7%   |
| annualized_volatility   | 14,4%   | 13,7%   | 13,8%   | 13,9%  |
| annualized_sharpe_ratio | 0,66  | 0,73  | 0,78  | 0,69   |
| max_drawdown            | -22,1%  | -21,0%  | -20,9%  | -23,9%   |
|                         | cs_reversal_lo_deciles_BestIndustries_monthly   | cs_reversal_lo_deciles_BestIndustries_quarterly   | cs_reversal_lo_deciles_BestIndustries_semi_annually   | cs_reversal_lo_deciles_BestIndustries_yearly   |
| total_return            | 274,7%  | 284,0%  | 339,1%  | 301,4%   |
| annualized_return       | 9,4%  | 9,6%  | 10,6%   | 9,9%   |
| annualized_volatility   | 14,3%   | 13,7%   | 13,9%   | 13,8%  |
| annualized_sharpe_ratio | 0,66  | 0,70  | 0,76  | 0,72   |
| max_drawdown            | -21,7%  | -22,5%  | -20,4%  | -21,9%   |
|                         | cs_reversal_lo_quintiles_AllIndustries_monthly  | cs_reversal_lo_quintiles_AllIndustries_quarterly  | cs_reversal_lo_quintiles_AllIndustries_semi_annually  | cs_reversal_lo_quintiles_AllIndustries_yearly  |
| total_return            | 274,0%  | 278,8%  | 303,1%  | 283,7%   |
| annualized_return       | 9,4%  | 9,4%  | 9,9%  | 9,5%   |
| annualized_volatility   | 14,3%   | 13,6%   | 14,0%   | 13,8%  |
| annualized_sharpe_ratio | 0,66  | 0,69  | 0,71  | 0,69   |
| max_drawdown            | -21,4%  | -21,4%  | -21,3%  | -22,0%   |
|                         | cs_reversal_lo_quintiles_BestIndustries_monthly | cs_reversal_lo_quintiles_BestIndustries_quarterly | cs_reversal_lo_quintiles_BestIndustries_semi_annually | cs_reversal_lo_quintiles_BestIndustries_yearly |
| total_return            | 276,5%  | 273,0%  | 301,7%  | 294,9%   |
| annualized_return       | 9,4%  | 9,3%  | 9,9%  | 9,8%   |
| annualized_volatility   | 14,3%   | 13,8%   | 14,1%   | 13,9%  |
| annualized_sharpe_ratio | 0,66  | 0,68  | 0,70  | 0,70   |
| max_drawdown            | -20,4%  | -21,6%  | -21,0%  | -21,3%   |
|                         | cs_reversal_lo_quartiles_AllIndustries_monthly  | cs_reversal_lo_quartiles_AllIndustries_quarterly  | cs_reversal_lo_quartiles_AllIndustries_semi_annually  | cs_reversal_lo_quartiles_AllIndustries_yearly  |
| total_return            | 263,6%  | 269,1%  | 295,5%  | 287,7%   |
| annualized_return       | 9,1%  | 9,3%  | 9,8%  | 9,6%   |
| annualized_volatility   | 14,3%   | 13,8%   | 14,1%   | 13,9%  |
| annualized_sharpe_ratio | 0,64  | 0,67  | 0,69  | 0,69   |
| max_drawdown            | -21,5%  | -21,9%  | -21,1%  | -21,5%   |
|                         | cs_reversal_lo_quartiles_BestIndustries_monthly | cs_reversal_lo_quartiles_BestIndustries_quarterly | cs_reversal_lo_quartiles_BestIndustries_semi_annually | cs_reversal_lo_quartiles_BestIndustries_yearly |
| total_return            | 283,4%  | 273,0%  | 304,8%  | 308,3%   |
| annualized_return       | 9,5%  | 9,3%  | 9,9%  | 10,0%  |
| annualized_volatility   | 14,3%   | 13,8%   | 14,1%   | 13,9%  |
| annualized_sharpe_ratio | 0,67  | 0,68  | 0,71  | 0,72   |
| max_drawdown            | -20,3%  | -21,8%  | -20,5%  | -20,4%   |

# Cumulated Performance Plot - cs\_idio\_rev\_lo



# Summary Table - Metrics - cs\_idio\_rev\_lo

|                         | cs_idio_reversal_lo_deciles_AllIndustries_monthly | cs_idio_reversal_lo_deciles_AllIndustries_quarterly | cs_idio_reversal_lo_deciles_AllIndustries_semi_annually | cs_idio_reversal_lo_deciles_AllIndustries_yearly |
|-------------------------|---|---|---|--|
| total_return            | 287.0%  | 349.5%  | 347.3%  | 436.0%   |
| annualized_return       | 9.6%  | 10.7%   | 10.7%   | 12.1%  |
| annualized_volatility   | 14.5%   | 14.1%   | 14.1%   | 14.1%  |
| annualized_sharpe_ratio | 0.66  | 0.76  | 0.76  | 0.85   |
| max_drawdown            | -21.9%  | -23.3%  | -22.3%  | -21.5%   |

|                         | cs_idio_reversal_lo_deciles_BestIndustries_monthly | cs_idio_reversal_lo_deciles_BestIndustries_quarterly | cs_idio_reversal_lo_deciles_BestIndustries_semi_annually | cs_idio_reversal_lo_deciles_BestIndustries_yearly |
|-------------------------|--|--|--|---|
| total_return            | 310.2%   | 369.6%   | 340.9%   | 386.0%  |
| annualized_return       | 10.0%  | 11.1%  | 10.6%  | 11.3%   |
| annualized_volatility   | 14.4%  | 14.0%  | 14.1%  | 14.2%   |
| annualized_sharpe_ratio | 0.70   | 0.79   | 0.75   | 0.80  |
| max_drawdown            | -20.6%   | -21.5%   | -23.5%   | -22.9%  |

|                         | cs_idio_reversal_lo_quintiles_AllIndustries_monthly | cs_idio_reversal_lo_quintiles_AllIndustries_quarterly | cs_idio_reversal_lo_quintiles_AllIndustries_semi_annually | cs_idio_reversal_lo_quintiles_AllIndustries_yearly |
|-------------------------|---|---|---|--|
| total_return            | 308.5%  | 305.2%  | 303.3%  | 355.5%   |
| annualized_return       | 10.0%   | 10.0%   | 9.9%  | 10.8%  |
| annualized_volatility   | 14.4%   | 14.1%   | 14.1%   | 14.4%  |
| annualized_sharpe_ratio | 0.69  | 0.70  | 0.70  | 0.75   |
| max_drawdown            | -23.4%  | -23.9%  | -22.9%  | -21.6%   |

|                         | cs_idio_reversal_lo_quintiles_BestIndustries_monthly | cs_idio_reversal_lo_quintiles_BestIndustries_quarterly | cs_idio_reversal_lo_quintiles_BestIndustries_semi_annually | cs_idio_reversal_lo_quintiles_BestIndustries_yearly |
|-------------------------|--|--|--|---|
| total_return            | 303.5%   | 304.5%   | 313.4%   | 334.2%  |
| annualized_return       | 9.9%   | 9.9%   | 10.1%  | 10.5%   |
| annualized_volatility   | 14.4%  | 14.1%  | 14.1%  | 14.5%   |
| annualized_sharpe_ratio | 0.69   | 0.71   | 0.72   | 0.72  |
| max_drawdown            | -22.1%   | -22.6%   | -19.1%   | -22.2%  |

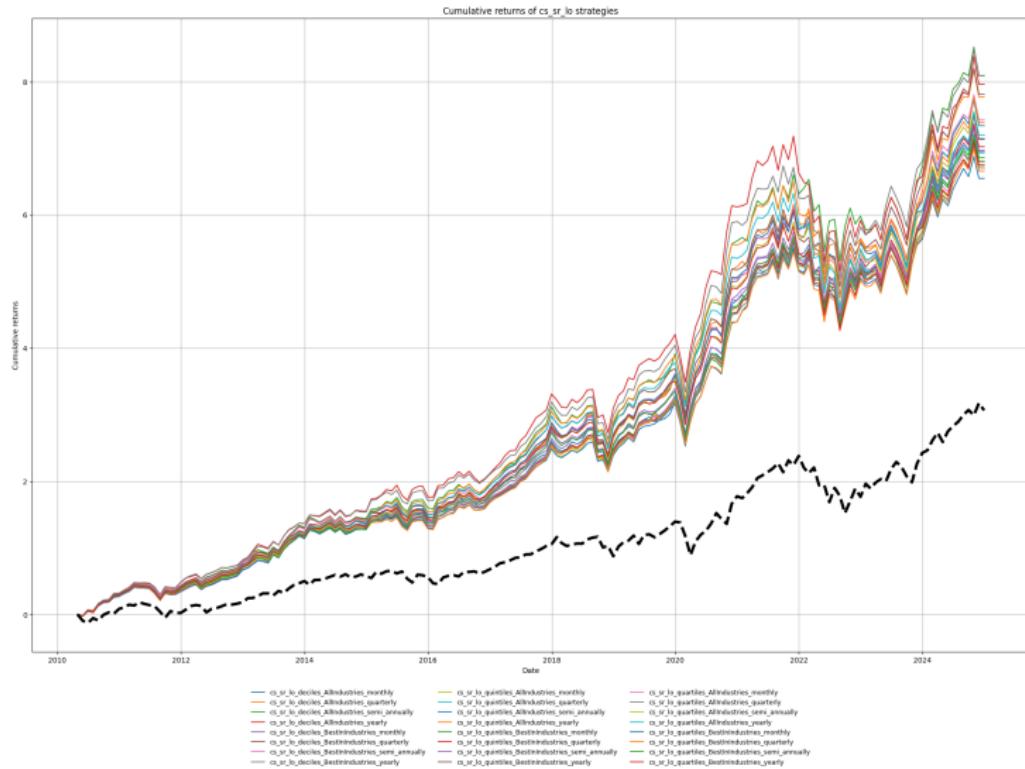
  

|                         | cs_idio_reversal_lo_quartiles_AllIndustries_monthly | cs_idio_reversal_lo_quartiles_AllIndustries_quarterly | cs_idio_reversal_lo_quartiles_AllIndustries_semi_annually | cs_idio_reversal_lo_quartiles_AllIndustries_yearly |
|-------------------------|---|---|---|--|
| total_return            | 306.6%  | 291.5%  | 292.3%  | 341.8%   |
| annualized_return       | 10.0%   | 9.7%  | 9.7%  | 10.6%  |
| annualized_volatility   | 14.4%   | 14.1%   | 14.1%   | 14.4%  |
| annualized_sharpe_ratio | 0.69  | 0.69  | 0.69  | 0.74   |
| max_drawdown            | -23.5%  | -23.5%  | -23.1%  | -21.3%   |

|                         | cs_idio_reversal_lo_quartiles_BestIndustries_monthly | cs_idio_reversal_lo_quartiles_BestIndustries_quarterly | cs_idio_reversal_lo_quartiles_BestIndustries_semi_annually | cs_idio_reversal_lo_quartiles_BestIndustries_yearly |
|-------------------------|--|--|--|---|
| total_return            | 307.7%   | 295.6%   | 311.1%   | 339.1%  |
| annualized_return       | 10.0%  | 9.8%   | 10.1%  | 10.6%   |
| annualized_volatility   | 14.4%  | 14.1%  | 14.1%  | 14.3%   |
| annualized_sharpe_ratio | 0.69   | 0.70   | 0.71   | 0.74  |
| max_drawdown            | -22.2%   | -24.0%   | -23.2%   | -21.9%  |

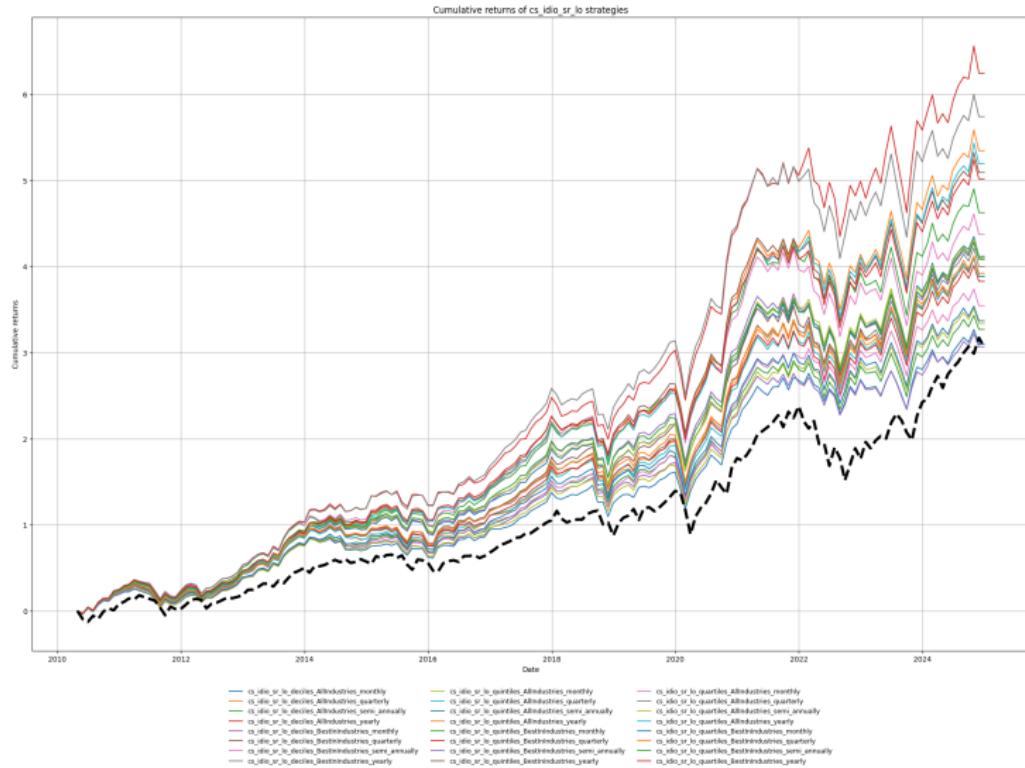
# Cumulated Performance Plot - cs\_sr\_lo



# Summary Table - Metrics - cs\_sr\_lo

|                         | cs_sr_lo_deciles_AllIndustries_monthly      | cs_sr_lo_deciles_AllIndustries_quarterly      | cs_sr_lo_deciles_AllIndustries_semi_annually      | cs_sr_lo_deciles_AllIndustries_yearly      |
|-------------------------|---|---|---|--|
| total_return            | 644,1%                                      | 701,4%  | 730,7%  | 718,6%                                     |
| annualized_return       | 14,6%                                       | 15,2%   | 15,4%   | 15,3%                                      |
| annualized_volatility   | 12,6%                                       | 13,2%   | 13,5%   | 13,9%                                      |
| annualized_sharpe_ratio | 1,16  | 1,15  | 1,14  | 1,10                                       |
| max_drawdown            | -14,6%                                      | -15,8%  | -17,0%  | -24,8%                                     |
|                         | cs_sr_lo_deciles_BestInIndustries_monthly   | cs_sr_lo_deciles_BestInIndustries_quarterly   | cs_sr_lo_deciles_BestInIndustries_semi_annually   | cs_sr_lo_deciles_BestInIndustries_yearly   |
| total_return            | 627,1%                                      | 703,9%  | 668,8%  | 729,3%                                     |
| annualized_return       | 14,4%                                       | 15,2%   | 14,8%   | 15,4%                                      |
| annualized_volatility   | 12,3%                                       | 12,8%   | 13,1%   | 13,5%                                      |
| annualized_sharpe_ratio | 1,17  | 1,18  | 1,13  | 1,14                                       |
| max_drawdown            | -16,4%                                      | -16,0%  | -19,3%  | -21,8%                                     |
|                         | cs_sr_lo_quintiles_AllIndustries_monthly    | cs_sr_lo_quintiles_AllIndustries_quarterly    | cs_sr_lo_quintiles_AllIndustries_semi_annually    | cs_sr_lo_quintiles_AllIndustries_yearly    |
| total_return            | 608,2%                                      | 625,9%  | 663,4%  | 667,7%                                     |
| annualized_return       | 14,2%                                       | 14,4%   | 14,8%   | 14,8%                                      |
| annualized_volatility   | 12,6%                                       | 13,2%   | 13,3%   | 13,7%                                      |
| annualized_sharpe_ratio | 1,13  | 1,09  | 1,11  | 1,08                                       |
| max_drawdown            | -15,9%                                      | -16,3%  | -17,9%  | -23,2%                                     |
|                         | cs_sr_lo_quintiles_BestInIndustries_monthly | cs_sr_lo_quintiles_BestInIndustries_quarterly | cs_sr_lo_quintiles_BestInIndustries_semi_annually | cs_sr_lo_quintiles_BestInIndustries_yearly |
| total_return            | 618,3%                                      | 633,0%  | 626,6%  | 643,1%                                     |
| annualized_return       | 14,3%                                       | 14,5%   | 14,4%   | 14,6%                                      |
| annualized_volatility   | 12,5%                                       | 13,0%   | 13,3%   | 13,5%                                      |
| annualized_sharpe_ratio | 1,14  | 1,11  | 1,09  | 1,08                                       |
| max_drawdown            | -17,3%                                      | -17,7%  | -19,3%  | -22,4%                                     |
|                         | cs_sr_lo_quartiles_AllIndustries_monthly    | cs_sr_lo_quartiles_AllIndustries_quarterly    | cs_sr_lo_quartiles_AllIndustries_semi_annually    | cs_sr_lo_quartiles_AllIndustries_yearly    |
| total_return            | 613,4%                                      | 604,8%  | 650,2%  | 650,1%                                     |
| annualized_return       | 14,2%                                       | 14,2%   | 14,6%   | 14,6%                                      |
| annualized_volatility   | 12,6%                                       | 13,2%   | 13,3%   | 13,6%                                      |
| annualized_sharpe_ratio | 1,13  | 1,08  | 1,10  | 1,08                                       |
| max_drawdown            | -16,8%                                      | -17,3%  | -18,4%  | -23,8%                                     |
|                         | cs_sr_lo_quartiles_BestInIndustries_monthly | cs_sr_lo_quartiles_BestInIndustries_quarterly | cs_sr_lo_quartiles_BestInIndustries_semi_annually | cs_sr_lo_quartiles_BestInIndustries_yearly |
| total_return            | 589,6%                                      | 599,6%  | 613,2%  | 608,2%                                     |
| annualized_return       | 14,0%                                       | 14,1%   | 14,2%   | 14,2%                                      |
| annualized_volatility   | 12,6%                                       | 13,1%   | 13,3%   | 13,5%                                      |
| annualized_sharpe_ratio | 1,11  | 1,08  | 1,07  | 1,05                                       |
| max_drawdown            | -18,5%                                      | -18,5%  | -19,8%  | -22,8%                                     |

# Cumulated Performance Plot - cs\_idio\_sr\_lo



# Summary Table - Metrics - cs\_idio\_sr\_lo

|                         | cs_idio_sr_lo_deciles_AllIndustries_monthly      | cs_idio_sr_lo_deciles_AllIndustries_quarterly      | cs_idio_sr_lo_deciles_AllIndustries_semi_annually      | cs_idio_sr_lo_deciles_AllIndustries_yearly      |
|-------------------------|--|--|--|---|
| total_return            | 279,6%   | 352,5%   | 421,3%   | 571,2%  |
| annualized_return       | 9,5%   | 10,8%  | 11,8%  | 13,8%   |
| annualized_volatility   | 12,4%  | 13,4%  | 13,4%  | 13,5%   |
| annualized_sharpe_ratio | 0,77   | 0,80   | 0,88   | 1,02  |
| max_drawdown            | -17,6%   | -17,3%   | -17,9%   | -17,1%  |
|                         | cs_idio_sr_lo_deciles_BestInIndustries_monthly   | cs_idio_sr_lo_deciles_BestInIndustries_quarterly   | cs_idio_sr_lo_deciles_BestInIndustries_semi_annually   | cs_idio_sr_lo_deciles_BestInIndustries_yearly   |
| total_return            | 278,1%   | 353,9%   | 399,2%   | 526,3%  |
| annualized_return       | 9,4%   | 10,8%  | 11,8%  | 13,2%   |
| annualized_volatility   | 12,3%  | 13,3%  | 13,5%  | 13,6%   |
| annualized_sharpe_ratio | 0,77   | 0,81   | 0,85   | 0,97  |
| max_drawdown            | -17,2%   | -17,8%   | -19,6%   | -17,8%  |
|                         | cs_idio_sr_lo_quintiles_AllIndustries_monthly    | cs_idio_sr_lo_quintiles_AllIndustries_quarterly    | cs_idio_sr_lo_quintiles_AllIndustries_semi_annually    | cs_idio_sr_lo_quintiles_AllIndustries_yearly    |
| total_return            | 299,8%   | 350,1%   | 371,8%   | 484,8%  |
| annualized_return       | 9,9%   | 10,7%  | 11,1%  | 12,7%   |
| annualized_volatility   | 12,8%  | 13,6%  | 13,5%  | 13,4%   |
| annualized_sharpe_ratio | 0,77   | 0,79   | 0,82   | 0,95  |
| max_drawdown            | -18,7%   | -18,3%   | -18,1%   | -18,1%  |
|                         | cs_idio_sr_lo_quintiles_BestInIndustries_monthly | cs_idio_sr_lo_quintiles_BestInIndustries_quarterly | cs_idio_sr_lo_quintiles_BestInIndustries_semi_annually | cs_idio_sr_lo_quintiles_BestInIndustries_yearly |
| total_return            | 294,1%   | 345,6%   | 369,5%   | 462,2%  |
| annualized_return       | 9,7%   | 10,7%  | 11,1%  | 12,4%   |
| annualized_volatility   | 12,8%  | 13,5%  | 13,5%  | 13,5%   |
| annualized_sharpe_ratio | 0,76   | 0,79   | 0,82   | 0,92  |
| max_drawdown            | -18,4%   | -17,9%   | -19,3%   | -18,2%  |
|                         | cs_idio_sr_lo_quartiles_AllIndustries_monthly    | cs_idio_sr_lo_quartiles_AllIndustries_quarterly    | cs_idio_sr_lo_quartiles_AllIndustries_semi_annually    | cs_idio_sr_lo_quartiles_AllIndustries_yearly    |
| total_return            | 318,0%   | 359,9%   | 369,3%   | 468,8%  |
| annualized_return       | 10,2%  | 10,9%  | 11,1%  | 12,5%   |
| annualized_volatility   | 12,9%  | 13,6%  | 13,6%  | 13,5%   |
| annualized_sharpe_ratio | 0,79   | 0,80   | 0,81   | 0,93  |
| max_drawdown            | -18,3%   | -18,0%   | -18,3%   | -18,3%  |
|                         | cs_idio_sr_lo_quartiles_BestInIndustries_monthly | cs_idio_sr_lo_quartiles_BestInIndustries_quarterly | cs_idio_sr_lo_quartiles_BestInIndustries_semi_annually | cs_idio_sr_lo_quartiles_BestInIndustries_yearly |
| total_return            | 302,9%   | 353,7%   | 368,6%   | 454,7%  |
| annualized_return       | 9,9%   | 10,8%  | 11,0%  | 12,3%   |
| annualized_volatility   | 12,9%  | 13,6%  | 13,5%  | 13,5%   |
| annualized_sharpe_ratio | 0,77   | 0,80   | 0,81   | 0,91  |
| max_drawdown            | -18,2%   | -18,0%   | -18,1%   | -18,1%  |

## Conclusion – Best Strategy:

cs\_sr\_lo\_deciles\_BestInIndustries\_quarterly

| Metric                  | Value  |
|-------------------------|--------|
| Total Return            | 703.9% |
| Annualized Return       | 15.2%  |
| Annualized Volatility   | 12.8%  |
| Annualized Sharpe Ratio | 1.18   |
| Maximum Drawdown        | -16.0% |

- **Horizon:** Quarterly
- **Universe:** Best in Industries, Low Deciles
- **Selection:** Best performance in terms of Sharpe Ratio