Stock Data Update

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Contents

List of Figures

List of Tables

1 Stock market returns

Placeholder

1.1 File path

1.2 Monthly returns

1.2.1 Cumulative MRET: Backward

1.2.2 Cumulative MRET: Forward

2 Market volatility

2.1 File path

```
market_pfmc_d_path <- "/Volumes/Samsung_T7/Research/Database/CSMAR/股票市场系列/股票市场交易/综合市场交易数据
```

2.2 Stock market variance

股票方差是过去 252 个交易日 A 股市场加权市场投资组合日收益率平方

```
market_svar_m_csmar <- data.table::fread(market_pfmc_d_path) %>%
  tibble() %>%
  setlowercolnames() %>%
  filter(markettype == 117) %>%
  select(tradingdate = trddt, cdretwdos) %>%
  mutate(tradingdate = ymd(tradingdate), svar = cdretwdos * cdretwdos) %>%
  na.omit() %>%
  arrange(tradingdate) %>%
  mutate(svar = rollsumr(svar, 252, fill = NA)) %>%
  group_by(year(tradingdate), month(tradingdate)) %>%
  summarise(tradingdate = last(tradingdate), svar = last(svar)) %>%
  ungroup() %>%
  na.omit() %>%
  mutate(tradingmonth = ceiling_date(tradingdate, "m") - days(1)) %>%
  select(tradingmonth, svar)
```

3 Market turnover

3.1 File path

```
stock_ret_month_path <- "/Volumes/Samsung_T7/Research/Database/CSMAR/股票市场系列/股票市场交易/个股回报率/月个
```

3.2 Monthly trading volume: All A shares

Bottom-up average with all a shares

```
market_turnover_m_csmar <- fread(stock_ret_month_path, colClasses = c(Stkcd = "character")) %>%
  setlowercolnames() %>%
  .[markettype %in% c(1, 4, 16, 32)] %>%
  .[, tradingmonth := ymd(paste0(trdmnt, "-01"))] %>%
  .[, .(stkcd, tradingmonth, mclsprc, mnshrtrd, mnvaltrd, msmvosd)] %>%
  .[, mnshrfloata := msmvosd * 1000 / mclsprc] %>%
  .[, `:=`(turnover_1 = mnshrtrd / mnshrfloata, turnover_2 = mnvaltrd / (msmvosd * 1000))] %>%
  na.omit() %>%
  .[, lapply(.SD, function(x) weighted.mean(x,w = msmvosd)), .SDcols = c("turnover_1", "turnover_2"), tradingmonth
  setorder(tradingmonth) %>%
  .[, (c("turnover_12m_mean_backward_1", "turnover_12m_backward_2")) := lapply(.SD, RcppRoll::roll_meanr, n = 12),
```

```
  .[, (c("turnover_12m_mean_forward_1", "turnover_12m_mean_forward_2")) := lapply(.SD, RcppRoll::roll_meanl, n = 1
  .[, tradingmonth := ceiling_date(tradingmonth, "m") -days(1)] %>%
  .[]
```

4 Inflation

Placeholder

4.1 File path

4.2 Monthly CPI month-to-month

5 Net equity expansion

Placeholder

5.1 File path

5.2 NTIS

6 Government bond yields

Placeholder

6.1 中债到期收益率曲线

6.2 Short-term yield: 3m

6.3 Long-term yield: 10Yr

6.4 Termspread

7 Market valuation

```
mv_path <- "/Volumes/Samsung_T7/Research/Database/WIND/指数/指数行情序列/STK_INDEX_VALUATION_update202302.xlsx"
```

7.1 D/P, E/P, B/M

```
market_valuation_m_wind <- readxl::read_xlsx(mv_path, "WINDA") %>%
      mutate(tradingmonth = ymd(ceiling_date(ymd, "month") - days(1)), ep_winda = 1 / pe, bp_winda = 1 / pb, dp_wi
      select(tradingmonth, ep_winda, bp_winda, dp_winda, pe_winda = pe, pb_winda = pb)
```

8 Merge data

```
econ_var_m <- marketret_m_csmar %>%
  left_join(market_svar_m_csmar) %>%
  left_join(market_turnover_m_csmar) %>%
  left_join(cpi_m_csmar) %>%
  left_join(ntis_m_csmar) %>%
  left_join(sty_3m_m_cb) %>%
  left_join(lty_10yr_m_cb) %>%
  left_join(termspread_m_cb) %>%
  left_join(market_valuation_m_wind) %>%
  as.data.table()
```