READ ME FILE

Title: Monetary Policy, Equity Markets and the Information Effect

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Description

This 'read me' file details the structure of the replication files for RDP 2021-04.

The files are set up using an R Project. **Please double click the `.Rproj` file before running any of the code.**

The main replication files are as follows:

1) `analysis/main.Rmd`: This replicates all the figures in the main text of the RDP. Hit Ctrl+Shift+K to knit the document. This should produce `analysis/main.html`.

2) `analysis/monetary-policy-surprises.Rmd`: This files uses synthetic data to show the user how the monetary policy surprise measure was calculated. Hit Ctrl+Shift+K to knit the document. This should produce `analysis/monetary-policy-surprises.html`.

Folder structure

```
rdp-2021-04-supplementary-information
|--rdp-2021-04-graph-data.xlsx                  # Contains data used to plot the figures in the paper
|--rdp-2021-04-supplementary-information.Rproj  # R project file
|--rdp-2021-04-read-me.pdf                      # pdf of readme file
|--README.Rmd                                   # Rmarkdown readme file
|--README.html                                  # HTML output from README.Rmd
|
|
|--data/                                        # Data used in the analysis
|   + earnings/
|        earnings-shock-all.csv                 # Changes in equity earnings forecasts around all RBA communications (including board meetings, SMP, Governor speeches and board minutes). Data sourced from Refinitiv and Thomson Reuters.
|        earnings-shock.csv                     # Changes in equity earnings forecasts around monetary policy announcements only. Data sourced from Refinitiv and Thomson Reuters.
|
|   + economic-news/
|        bloomberg-surprises.csv                # Bloomberg survey mean forecast of ABS releases (GDP, CPI inflation and the unemployment rate) and the actual ABS first release data point. Data sourced from Bloomberg and ABS.
|
|   + equities/
|        asx-shock-all.csv                      # Change in ASX 200 index (30 minutes before and 90 minutes after) following an RBA communication (including board meetings, SMP, Governor speeches and board minutes). Data sourced from Refinitiv.
|        asx-shock.csv                          # Changes in ASX 200 index (30 minutes before and 90 minutes after) following a monetary policy announcement. Data sourced from Refinitiv.
|
```

```
|   + fake-data/
|     - ois-all.csv                          # Contains synthetic data to help replicate the process of creating the monetary policy surprises in ./analysis/monetary-policy-surprises.Rmd.
|
|   + mp-surprises/
|     - mp-dates.csv                         # Date and time of RBA communications. Data sourced from the RBA and Bloomberg.
|     - mp-surprises.csv                     # Monetary policy surprises (pc1_scaled) and cash rate changes (cashrate_changes) calculated using only monetary policy announcement date times. Data sourced from the RBA and Bloomberg.
|     - mp-surprises-all.csv                 # Monetary policy surprises (pc1_scaled) and cash rate changes (cashrate_changes) calculated using all RBA communications. Data sourced from the RBA and Bloomberg.
|
|
|--analysis/
|   + main.Rmd                               # Main replication file - hit Ctrl+Shift+K to knit the document.
|   + main.html                              # Output from main.Rmd.
|   + monetary-policy-surprises.Rmd          # Replication file to create monetary policy surprise measure. Data used are synthetic.
|   + monetary-policy-surprises.html         # Output from monetary-policy-surprises.Rmd.
|
|
|--R/                                        # Contains user defined functions used in the analysis.
```

A note on data

Due to contract restrictions I am unable to publish some of the raw data used in the analysis. This includes the high-frequency OIS and equity price data, and the weekly forecasted earnings growth. Instead, these files only contain transformed data (where the reconstruction of original raw data is impossible). These files include:

- `./data/equities/asx-shock.csv` and `./data/equities/asx-shock-all.csv`: only show changes in the ASX 200 index around monetary policy event times. The raw data are from Refinitiv and are unavailable due to third-party provider restrictions.
- `./data/earnings/earnings-shock.csv` and `./data/earnings/earnings-shock-all.csv`: only show the one-week change in forecasted earnings around monetary policy event times. The raw data are sourced from Datastream by Thomson Reuters/Refinitiv but are unavailable due to third-party provider restrictions.
- `./data/mp-surprises.csv` and `./data/mp-surprises-all.csv`: only show the cash rate change and monetary policy surprise measure. The cash rate changes are available from the RBA web site, while the monetary policy surprises are constructed with data from Refinitiv and are unavailable due to third-party provider restrictions.

Also note that the data in `./data/fake-data/ois-all.csv` are synthetic (and are just random numbers). They are used to help users understand the process of creating the monetary policy surprises as done in `./analysis/monetary-policy-surprises.Rmd`.

Contact information

These files were compiled by Calvin He.

22 April 2021