This file is part of the replication package for "Validity, Tightness, and Forecasting Power of Risk Premium Bounds". The folder *replication_package* contains the following:

1. *readme.pdf* : This README file.

2. *market*

   (a) *code* : contains codes replicating the market-level analyses in the paper.

   (b) *input* : contains input data from multiple sources; e.g. Goyal/Welch variables.

   (c) *intermediate* : contains data files produced by our codes and later used in generating tables and figures.

   (d) *figures* : contains all market-level figures used in the paper, the internet appendix, and the response letter.

   (e) *tables* : contains all market-level tables used in the paper and the internet appendix.

3. *stock*

   (a) *code* : contains codes replicating the stock-level analyses in the paper.

   (b) *input* : contains input data from multiple sources; e.g. stock characteristics from Jeremiah Green's SAS code.

   (c) *intermediate* : contains data files produced by our codes and later used in generating tables and figures.

   (d) *figures* : contains all stock-level figures used in the paper, the internet appendix, and the response letter.

   (e) *tables* : contains all stock-level tables used in the paper and the internet appendix.

4. *flowchart.xlsx* : contains the flow-chart of all the files in the replication package. It shows how the codes are connected, which data files each code uses, etc.

5. *variable description.xlsx* : contains tables describing the definitions of variables in each file in the *market/intermediate/* and *stock/intermediate/* folders. These are all the data files that our codes generate. We do not describe variables from files located in *market/input/* and *stock/input/* .

To replicate the market-level results, run *market_analyses_replication.py* in *market/code/* following the instructions at its top. Do the same with *stock_analyses_replication.py* in *stock/code/* to replicate stock-level results. For each step of the replication process, these two files also include information about

- the resources you need (Python packages, etc.),

- inputs and outputs of the code,

- the tables and figures replicated, and

- the estimated running time.

All the codes have been run using Python 3.7.9. The program will connect to the WRDS server several times to download data. You will need to enter your WRDS credentials every time. Several steps of the replication involve parallel processing. We recommend you run the code on a server if you wish to run those steps or leave the toggles controlling these subroutines turned off. You also need to have a license to Gurobi, a quadratic programming solver we used to speed up the process of calculating Kodde/Palm test statistics. You can obtain the license for free from the Gurobi website.

Most of the Python packages used in our codes come with the standard Anaconda distribution. In addition to those, you might need to install the following packages: wrds, multiprocessing, arch, pandas_datareader, gurobipy, and warnings.