

Parameter Estimate Data Files

(Version: 18 December, 2017)

The parameter estimate data files are available from www.rmicri.org -> Smart Data -> Data Download -> Parameter Data. There are two zip files. A zip file named *Parameters_yyyymmdd.zip* includes all of the individual economies' parameter estimates. Another zip file named *NS_parameters_yyyymmdd.zip* includes all of the individual economies' four parameter estimates for the Nelson-Siegel function of each covariate. The date in the filename indicates the latest calibration date for each economy.

Inside the *Parameters_yyyymmdd.zip* file, the individual economy files are CSV files where different fields are delimited by commas, and have file names of the form: *Parameters_XXX_yyyymmdd.csv*. Here XXX is the ISO code for the economy, and the date is the calibration date for the economy. The ISO codes are given in Table 1 found at the end of this document.

Inside of the *NS_parameter_yyyymmdd.zip*, the individual economy files are CSV files where different fields are delimited by commas, and have file names of the form: *NS_parameters_XXX_yyyymmdd.csv*. Here XXX is the ISO code for the economy, and the date is the calibration date for the economy. The ISO codes are given in Table 1.

Each file in two zip files contains one header line with six fields, for example:

Economy, AUS, Data to, 20170131, Calibration Date, 20170206

which indicates that the parameter estimates are for Australia and the calibration was performed on 2017-02-06, using data available up until 2017-01-31.

The only exception is that the file for China in the *Parameters_yyyymmdd.zip* contains one header line with eight fields as shown in the following example:

Economy, CHN, Data to, 20170131, Calibration Date, 20170214, Prediction Month, 201701

The seventh and eighth fields are added in the file for China to reflect that the intercept and DTD Level parameters depend on Prediction Month, and the values reported in the file are based on that designated prediction month. Parameter values on other prediction months are available upon special requests. Please refer to <http://d.rmicri.org/static/pdf/Addendum%201-star%20Technical%20Report%202016.pdf> for more details.

For all files in the *Parameters_yyyymmdd.zip*, the data are demonstrated in two sections. The upper section displays default parameters, while the lower one displays other exit parameters. Since economies are always calibrated in groups, economies in the same group should share the same values for all the parameters. Nevertheless, individual values may be still different for some economies in the same calibration group due to additional dummy variables, which are further explained in Section I.3. of Technical Report.

In both data sections, the first line is the column header indicating the applicable horizon in months, from 1 to 60; also, all parameters are listed in the first column with each row of parameter values

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followed by a row of its corresponding margin of error that can be used to construct its 90% confidence interval, with respective suffixes of `_values` and `_CI`¹. The confidence interval can be directly computed by adding to and subtracting from the parameter value by its corresponding 90% confidence-interval margin of error. For the technical details on this confidence interval, please refer to the Section I.3.3. of Technical Report. The variables are indicated as `Intercept`, `Stock_Idx`, `ST_Interest_Rate`, `DTD_Level`, `DTD_Trend`, `Liquidity ratio_Level`, `Liquidity ratio_Trend`, `NI/TA_Level`, `NI/TA_Trend`, `SIZE_Level`, `SIZE_Trend`, `M/B`, and `SIGMA`. For explanations of the variables, please refer to Section II.1. of Technical Report.

Likewise, there are two sections of data provided for all files in the `NS_parameter_yyyymmdd.zip`. The upper section displays the default parameters, while the lower one displays other exit parameters. The first line of both sections is the column header composed of `Covariate`, `rho0`, `rho1`, `rho2`, `d`.

Generally, there are 13 covariates in the `NS_parameter_yyyymmdd.zip` for both default and other exit parameters in all economies with the exception of China. Since February 2017, the CRI model has allowed two parameters (the intercept and DTD Level) in the case of China to have a structural break occurring in a transition accomplished by employing a logistic function. This model specification is captured by `intercept1`, `intercept2`, `intercept3`, `dtd_ave1`, `dtd_ave2`, `dtd_ave3` and their NS parameters. As a result, the number of parameters for the default model for the Chinese sample increases from 13 to 17, while that of covariates for other exit parameters remain unchanged. Please refer to <http://d.rmicri.org/static/pdf/Addendum%201-star%20Technical%20Report%202016.pdf> for more details.

¹ In the data files 'Parameter Estimates' generated before September 2013, suffix `_SE` indicates standard error (prior to March 2013) or 90% confidence-interval margin of error (from March 2013 to August 2013, inclusive).

Table 1: ISO codes for economies under coverage

ID	Economy
ARE	United Arab Emirates
ARG	Argentina
AUS	Australia
AUT	Austria
BEL	Belgium
BGD	Bangladesh
BGR	Bulgaria
BHR	Bahrain
BIH	Bosnia and Herzegovina
BRA	Brazil
BWA	Botswana
CAN	Canada
CHE	Switzerland
CHL	Chile
CHN	China
COL	Colombia
CYP	Cyprus
CZE	Czech Republic
DEU	Germany
DNK	Denmark
EGY	Egypt
ESP	Spain
EST	Estonia
FIN	Finland
FRA	France
GBR	United Kingdom
GHA	Ghana
GRC	Greece
HKG	Hong Kong
HRV	Croatia
HUN	Hungary
IDN	Indonesia
IND	India
IRL	Ireland
ISL	Iceland
ISR	Israel
ITA	Italy
JAM	Jamaica
JOR	Jordan
JPN	Japan
KAZ	Kazakhstan

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Table 1: ISO codes for economies under coverage

ID	Economy
KEN	Kenya
KOR	South Korea
KWT	Kuwait
LKA	Sri Lanka
LTU	Lithuania
LUX	Luxembourg
LVA	Latvia
MAR	Morocco
MEX	Mexico
MKD	Macedonia, the former Yugoslav Republic of Macedonia
MLT	Malta
MNE	Montenegro
MUS	Mauritius
MWI	Malawi
MYS	Malaysia
NAM	Namibia
NGA	Nigeria
NLD	Netherlands
NOR	Norway
NZL	New Zealand
OMN	Oman
PAK	Pakistan
PER	Peru
PHL	Philippines
POL	Poland
PRT	Portugal
ROM	Romania
RUS	Russian Federation
RWA	Rwanda
SAU	Saudi Arabia
SGP	Singapore
SRB	Serbia
SVK	Slovakia
SVN	Slovenia
SWE	Sweden
THA	Thailand
TUN	Tunisia
TUR	Turkey
TWN	Taiwan

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Table 1: ISO codes for economies under coverage

ID	Economy
TZN	Tanzania
UGA	Uganda
UKR	Ukraine
USA	United States
VEN	Venezuela
VNM	Vietnam
ZAF	South Africa