

# Using SAS to access CRSP

- \* This program shows how to get raw data (returns, prices, trading volume) using SAS and Eventus
- \* It also uses Eventus to run an event study
- \* It reads cusips and "event" dates from a SAS data file, a text file
- \* For more info, go to <http://www.eventstudy.com/> the EVENTUS home page or even more directly, <http://www.eventstudy.com/Eventus-Guide-8-Public.pdf> ==> the EVENTUS user's manual & search for getdata (starting on page 51) ;

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*****/;

libname DGTWdata "E:\sas-data\robynm\Eventus\datasets\DGTW_data";

libname FFFdata "E:\sas-data\robynm\Eventus\datasets";

LIBNAME Mdata2 "E:\sas-data\robynm\master_data2";, /* define the SAS "libraries" = shorthand for file path names*/;
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- \* Reading in data from an excel file

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*****.

#####;

proc import DBMS=EXCEL
DATAFILE = "E:\sas-data\robynm\master_data2\Ex_test.xls"
out=mdata2.sas_data_in REPLACE;

    sheet="INPUT_DATA";

    getnames=yes;

* MIXED=YES;

    USEDATE=YES;

run;

#####;
```

- \* Getting "raw" data

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*****.

eventus getdata;

request insas=Mdata2.sas_data_in CusiPerm autodate ;

Returns index both

    outsas=Mdata2.SAS_OutRet_D

    extfile = "E:\sas-data\robynm\master_data2\text_OutRet_D.txt" ;;

run;
```

/\* 1st line: getdata => get raw data, not run an event study

Daily data is the default

- \*\* 2nd line: insas=> use a SAS data file as the request (input) file

must have variables: cusip, eventadat and/or eventda1 & eventda2

cusiperm => the firm id is cusip (must be char 8) (can also use permno)

autodate => if the event days aren't trading days => use next trading day

- \*\* 3rd line: get raw RETURNS from eventda1 through eventda2

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index => write CRSP equally-weighted index

both => also write value-weighted index

** 4th line: outsas => write output to SAS data file

extfile => write output to text file  */;

#####;

#####;

eventus getdata monthly;

request insas=Mdata2.sas_data_in CusiPerm autodate ndays=60;

Prices nominus

outsas=Mdata2.SAS_OutPr_M

extfile = "E:\sas-data\robynm\master_data2\TxT_OutPr_M.txt" ;;

run;

/* 1st line: getdata => get raw data, not run an event study

monthly => use monthly data

** 2nd line: insas= => use a SAS data file as the request (input) file

cusiperm => the firm id is cusip (char 8)

autodate => if the event days aren't trading days => use next trading day

ndays => data from eventdat through time +ndays (here month +60)

** 3rd line: get raw PRICES

nominus => remove minus sign used by CRSP to indicate bid/ask avg

** 4th line: outsas => write output to SAS data file: "SAS_RawRPr_M1" in SAS library 'Mdata2'

extfile => write output to text file  */;

#####;

#####;

filename request "E:\sas-data\robynm\master_data2\TxT_data_in1.txt";;

eventus getdata;

request CusiPerm autodate ndays=100;

Volume

outsas=Mdata2.SAS_OutVol_D

extfile = "E:\sas-data\robynm\master_data2\TxT_OutVol_D.txt" ;;

run;

/* filename line: defines E:\sas-data\robynm\master_data2\TxT_data_in1.txt

as the request file

** 1st line: getdata => get raw data, not run an event study

by default use daily data

** 2nd line: cusiperm => the firm id is cusip (char 8)

autodate => if the event days aren't trading days => use next trading day

ndays => data from eventdat through time +ndays (here day +100)

** 3rd line: get Volumes

** 4th line: outsas => write output to SAS data file

```

```

extfile => write output to text file

*/;

#####;
*****

* Running an 'EVENT' study

*****;

#####;

eventus monthly ;

TITLE1 "Eventus 2-stage Event Study - Test - Various Holding periods thru Month +60";

Request insas=Mdata2.sas_data_in CusiPerm autodate ;

windows (-12,-1)(-6,-1)(-1,0) (-1,1)(0,12)(0,24)(0,36)(0,48) (0,60)

(1,12)(1,24)(1,36)(1,48) (1,60);

evtstudy nonames post=60

OutWin= Mdata2.SAS_HP_M

FileWin="E:\sas-data\robynm\master_data2\TxT_HP_M"

ExcelWin="E:\sas-data\robynm\master_data2\Ex_HP_M"

CSVWin="E:\sas-data\robynm\master_data2\CSV_HP_M"

DTAWin="E:\sas-data\robynm\master_data2\Stata_HP_M" ;;

run;

/* 1st line: run an event study - monthly data

** 2nd line: put a title on each output page

** 3rd line: insas=> use a SAS data file as the request (input) file

must have variables: cusip, eventadat and/or eventda1 & eventda2

cusiperm => the firm id is cusip (must be char 6 or char 8) (can also use permno)

autodate => if the event days aren't trading days => use next trading day

** 4th line: windows => calc CARs for the following holding periods returns relative

to the event date

** 5th line: evtstudy => run the event study

nonames => omit some of Eventus's output (it produce3s lots)

post => calc ARs thru post (here month 60) relative to the event date

outwin => write output to SAS data file

FileWin => write output to text file

ExcelWin = write output to an Excel file

CSVWin => write output to comma delimited file

DTAWin => write output to stata file*/;

#####;
*****

* You can also export SAS files to excel files

*****;

proc export data=Mdata2.sas_data_in

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dbms=excel2000
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outfile = "E:\sas-data\robynm\master_data2\Ex_test.xls" replace;;
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sheet=Input_data;
```

```
run;
```