Functions:

FINYEAR(date)

Date is any valid SAS date. FINYEAR returns a length 7 CHAR representing the

Financial Year expressed as '9999-99'. (e.g. the date '16/5/2019'd would return

'2018-19')

FINQTR(date)

Date is any valid SAS date. FINQTR returns a numeric value representing the financial

quarter. (e.g. the date '16/5/2019'd would return 4)

FINYEARQTR(date)

Date is any valid SAS date. FINYEARQTR returns a length 10 CHAR representing the financial

year and quarter expressed as '9999-99 Q9'. (e.g. the date '16/5/2019'd would return

'2018-19 Q4')

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/

%let fcmplib=work;

\*location of function package

\*location to store compiled functions;

%let fmtlib=work;

\* location to store formats;

/\* use DELETEFUNC of FCMP to delete the existing functions. This is done to avoid an

irritating warning message.

omit this step if using the WORK library as it will cause a warning if the functions

have not yet been created \*/

/\*proc fcmp outlib=&fcmplib..ndis.findates;\*/

/\*   deletefunc finyear;\*/

/\*   deletefunc finqtr;\*/

/\*   deletefunc finyearqtr;\*/

/\*run;\*/

/\*quit;\*/

**proc** **fcmp** outlib=&fcmplib.**.n**dis.findates;

     function finyear(date) $**7**;

           \*accept a number var as the only argument, return char length 7;

           length year **4**;

           year=year(intnx('year.7',date,**0**,'B'));

           \*calculate the starting year of the financial year;

           /\* return the beginning year of the financial year, concatenated with a hyphen,

                followed by the last two digits of the following year \*/

           return (catx('-',put(year,**4.**),substr(put(year+**1**,**4.**),**3**)));

     endsub;

     function finqtr(date);

           length calendar\_quarter **3**; \*temp variable contain calendar quarter;

           calendar\_quarter=qtr(date);

           /\* if the calendar quarter is GT 2 then subtract 2, otherwise add 2 \*/

           return (ifn(calendar\_quarter>**2**,calendar\_quarter-**2**,calendar\_quarter+**2**));

     endsub;

     function finyearqtr(date) $**10**;

         /\* concatenate the results for the FINYEAR & FINQTR functions, separated by

            ' Q' \*/

           return (catx(' Q',finyear(date),put(finqtr(date),**1.**)));

     endsub;

**run**;

**quit**;

options cmplib=(&fcmplib.**.n**dis);

/\* test functions for the current date \*/

/\*data \_null\_;\*/

/\*   date=today();\*/

/\*   finyear=finyear(date);\*/

/\*   finqtr=finqtr(date);\*/

/\*   fin\_year\_qtr=finyearqtr(date);\*/

/\*   put date= date9. finyear= finqtr= fin\_year\_qtr=;\*/

**run**;

**proc** **format** lib=&fmtlib;

     value finyear (default=**7** min=**7** max=**7**)

           low-high=[finyear()];

     value finqtr (default=**1** min=**1** max=**1**)

           low-high=[finqtr()];

     value finyearqtr (default=**10** min=**10** max=**10**)

           low-high=[finyearqtr()];

**run**;

/\*data work.testpack;\*/

/\*   current\_date=today();\*/

/\*   length original\_date finyear finqtr finyearqtr 5.;\*/

/\*\*/

/\*   do original\_date=intnx('year1.1',current\_date,-5,'S') to current\_date;\*/

/\*         finyear=original\_date;\*/

/\*         finqtr=original\_date;\*/

/\*         finyearqtr=original\_date;\*/

/\*         output;\*/

/\*   end;\*/

/\*\*/

/\*   format original\_date date9. finyear finyear. finqtr finqtr. finyearqtr finyearqtr.;\*/

/\*   drop current\_date;\*/

/\*run;\*/

/\*\*/

/\*proc freq data=work.testpack order=formatted;\*/

/\*   tables finyear finqtr finyearqtr/nocum nopercent;\*/

/\*run;\*/

**data** work.Data1;

     set data;

     format     AprvlDt2 yymmn6.;

/\*Set the dates before 30Sep2019 to be the first quarter 2016/17 Q1\*/

     if AprvlDt le **'30SEP2016'd** then

          AprvlDt2 = **"01jul2016"d**;

     else AprvlDt2=FrstPlanAprvlDt;

/\*Assign quarters to the rest of dates\*/

EntryQrtr=FINYEARQTR(AprvlDt2);

**run**;