Sas macro

**%macro** transformations(indata=,outdata=,list\_variables=,list\_variables\_rates=,time\_variable=,start\_date=,macro\_version=);

      %let nb\_var1= %sysfunc(countw(&list\_variables.," "));

      %let nb\_var2= %sysfunc(countw(&list\_variables\_rates.," "));

      %let list1=;

      %let list2=;

      proc sort data=&indata.;by &time\_variable.;run;

      data &outdata.;

            set  &indata.;

            %if &nb\_var1.>**0** %then

                  %do;

                        %do i=**1** %to &nb\_var1.;

                              %let var=%scan(&list\_variables.,&i," ");

                              %let list1= &list1. "&var.";

                              label &var.="Macro variable"

                                    &var.\_YY="Macro variable"

                                    &var.\_QA="Macro variable";

                              &var.\_YY= ((&var./lag4(&var.))-**1**)\***100**;

                              &var.\_QA=(((&var./lag(&var.))\*\***4**)-**1**)\* **100**;

                        %end;

                  %end;

            %if &nb\_var2.>**0** %then

                  %do;

                        %do j=**1** %to &nb\_var2.;

                              %let var=%scan(&list\_variables\_rates.,&j," ");

                              %let list2= &list2. "&var.";

                              label &var.="Macro variable"

                              &var.\_QD="Macro variable";

                              &var.\_QD=&var.-lag(&var.);

                        %end;

                  %end;

      run;

      proc Contents data=&outdata. out=outdata.trfmed\_macros\_list\_&macro\_version.(where=(label in  ("Macro variable")));

      RUN;

      proc Sql;

            select upcase(name) into:Transformed\_list\_variables   separated by " " from  outdata.trfmed\_macros\_list\_&macro\_version.;

            select count(name) into:nb\_var from  outdata.trfmed\_macros\_list\_&macro\_version.;

      Quit;

      data &outdata.(where=(&time\_variable.>=&start\_date.));

            set &outdata.;

            %if &nb\_var.>**0** %then

                  %do;

                        %do n=**1** %to &nb\_var.;

                              %let var=%scan(&Transformed\_list\_variables.,&n," ");

                              label &var.\_L0="Macro variable"

                                    &var.\_L1="Macro variable"

                                    &var.\_L2="Macro variable"

                                    &var.\_L3="Macro variable"

                                    &var.\_L4="Macro variable"

                                    &var.\_L5="Macro variable";

                              &var.\_L0=&var.;

                              &var.\_L1=lag1(&var.);

                              &var.\_L2=lag2(&var.);

                              &var.\_L3=lag3(&var.);

                              &var.\_L4=lag4(&var.);

                              &var.\_L5=lag5(&var.);

                        %end;

                  %end;

      run;

**%mend**;