การประมวลผลข้อมูล

DATE: 9/12/2018
TIME: 8:29

L I S R E L 8.80

BY

Karl G. J”reskog & Dag S”rbom


```
 The following lines were read from file
C:\Users\Administrator\Desktop\tui_acc1.SPJ:

 aaaa
 Raw Data from file 'C:\Users\Administrator\Desktop\tui_acc1.psf'
 Sample Size = 500
 Relationships
 Tobin_Q = EM
 EM = ROA
 Tobin_Q = ROA
 Path Diagram
 End of Problem

 Sample Size =   500

 aaaa

         Covariance Matrix

             Tobin_Q         EM        ROA
            --------   --------   --------
  Tobin_Q       0.99
       EM       0.92       0.99
      ROA       0.80       0.71       0.89



 aaaa

 Number of Iterations =  0

 LISREL Estimates (Maximum Likelihood)

         Structural Equations
```

```
Tobin_Q = 0.65*EM + 0.38*ROA, Errorvar.= 0.084  , Rý = 0.92
         (0.020)   (0.021)              (0.0053)
          32.75     17.99                15.78

     EM = 0.80*ROA, Errorvar.= 0.42  , Rý = 0.57
         (0.031)              (0.027)
          25.87                15.78


       Reduced Form Equations

Tobin_Q = 0.91*ROA, Errorvar.= 0.27, Rý = 0.73
         (0.025)
          36.88

     EM = 0.80*ROA, Errorvar.= 0.42, Rý = 0.57
         (0.031)
          25.87


       Variances of Independent Variables

              ROA
          --------
              0.89
            (0.06)
             15.78

       Covariance Matrix of Latent Variables

           Tobin_Q         EM        ROA
          --------   --------   --------
Tobin_Q       0.99
     EM       0.92       0.99
    ROA       0.80       0.71       0.89


                        Goodness of Fit Statistics

                           Degrees of Freedom = 0
              Minimum Fit Function Chi-Square = 0.0 (P = 1.00)
      Normal Theory Weighted Least Squares Chi-Square = 0.00 (P = 1.00)

                The Model is Saturated, the Fit is Perfect !


                        Time used:    0.000 Seconds

                             DATE:  9/12/2018
                               TIME:  8:30


                             L I S R E L  8.80

                                   BY

                       Karl G. J”reskog & Dag S”rbom
```

aaaa

Covariance Matrix

	Tobin_Q	EM	ROA
Tobin_Q	0.99		
EM	0.92	0.99	
ROA	0.80	0.71	0.89

aaaa

Number of Iterations = 0

LISREL Estimates (Maximum Likelihood)

Structural Equations

```
Tobin_Q  = 0.65*EM + 0.38*ROA, Errorvar.= 0.084  , Rý = 0.92
          (0.020)   (0.021)              (0.0053)
           32.75     17.99                15.78

EM       = 0.80*ROA, Errorvar.= 0.42  , Rý = 0.57
          (0.031)              (0.027)
           25.87                15.78
```

Reduced Form Equations

```
Tobin_Q  = 0.91*ROA, Errorvar.= 0.27, Rý = 0.73
          (0.025)
           36.88

EM       = 0.80*ROA, Errorvar.= 0.42, Rý = 0.57
          (0.031)
           25.87
```

Variances of Independent Variables

ROA
0.89
(0.06)
15.78

Covariance Matrix of Latent Variables

	Tobin_Q	EM	ROA
Tobin_Q	0.99		
EM	0.92	0.99	
ROA	0.80	0.71	0.89

Goodness of Fit Statistics

Degrees of Freedom = 0
Minimum Fit Function Chi-Square = 0.0 (P = 1.00)
Normal Theory Weighted Least Squares Chi-Square = 0.00 (P = 1.00)
Chi-Square Difference with 0 Degree of Freedom = 0.00 (P = 1.00)

The Model is Saturated, the Fit is Perfect !

aaaa

Factor Scores Regressions

Y

	Tobin_Q	EM	ROA
Tobin_Q	1.00	0.00	0.00
EM	0.00	1.00	0.00

X

	Tobin_Q	EM	ROA
ROA	0.00	0.00	1.00

aaaa

Standardized Solution

BETA

	Tobin_Q	EM
Tobin_Q	- -	0.65
EM	- -	- -

GAMMA

	ROA
Tobin_Q	0.36
EM	0.76

Correlation Matrix of Y and X

	Tobin_Q	EM	ROA
Tobin_Q	1.00		

```
EM              0.93       1.00
ROA             0.86       0.76       1.00

        PSI
        Note: This matrix is diagonal.

           Tobin_Q    EM
           --------   --------
               0.08       0.43

        Regression Matrix Y on X (Standardized)

                ROA
           --------
 Tobin_Q       0.86
      EM       0.76

aaaa

Total and Indirect Effects

        Total Effects of X on Y

           ROA
           --------
Tobin_Q        0.91
             (0.02)
              36.88
EM             0.80
             (0.03)
              25.87

        Indirect Effects of X on Y

           ROA
           --------
Tobin_Q        0.52
             (0.03)
              20.30
EM              - -

        Total Effects of Y on Y

           Tobin_Q    EM
           --------   --------
Tobin_Q         - -       0.65
                        (0.02)
                         32.75
EM              - -        - -

   Largest Eigenvalue of B*B' (Stability Index) is   0.428

aaaa

Standardized Total and Indirect Effects

        Standardized Total Effects of X on Y

           ROA
           --------
```

```
Tobin_Q        0.86
EM             0.76

        Standardized Indirect Effects of X on Y

           ROA
           --------
Tobin_Q        0.50
EM              - -

        Standardized Total Effects of Y on Y

           Tobin_Q    EM
           --------   --------
Tobin_Q         - -       0.65
EM              - -        - -

                          Time used:    0.000 Seconds


                               DATE:  9/12/2018
                                 TIME: 16:10


                               L I S R E L  8.80

                                      BY

                         Karl G. J"reskog & Dag S"rbom


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The following lines were read from file H:\tui3.SPJ:

ssss
Raw Data from file 'H:\tui3.psf'
Sample Size = 500
Relationships
Tobin_Q = EM
EM = ROE
Tobin_Q = ROE
Path Diagram
End of Problem

Sample Size =   500

ssss
```

```
        Covariance Matrix

            Tobin_Q         EM        ROE
           --------   --------   --------
 Tobin_Q       0.99
      EM       0.92       0.99
     ROE       0.59       0.51       0.89


ssss

Number of Iterations =  0

LISREL Estimates (Maximum Likelihood)

        Structural Equations


 Tobin_Q = 0.83*EM + 0.19*ROE, Errorvar.= 0.12   , Rý = 0.88
          (0.018)   (0.019)              (0.0073)
           45.81     10.13                15.78

      EM = 0.57*ROE, Errorvar.= 0.71  , Rý = 0.29
          (0.040)              (0.045)
           14.16                15.78


        Reduced Form Equations

 Tobin_Q = 0.66*ROE, Errorvar.= 0.60, Rý = 0.39
          (0.037)
           17.99

      EM = 0.57*ROE, Errorvar.= 0.71, Rý = 0.29
          (0.040)
           14.16


        Variances of Independent Variables

                ROE
           --------
               0.89
             (0.06)
              15.78

        Covariance Matrix of Latent Variables

            Tobin_Q         EM        ROE
           --------   --------   --------
 Tobin_Q       0.99
      EM       0.92       0.99
     ROE       0.59       0.51       0.89


                           Goodness of Fit Statistics

                              Degrees of Freedom = 0
                 Minimum Fit Function Chi-Square = 0.0 (P = 1.00)
```

Normal Theory Weighted Least Squares Chi-Square = 0.00 (P = 1.00)

The Model is Saturated, the Fit is Perfect !

Time used: 0.016 Seconds

DATE: 9/12/2018
TIME: 16:11

L I S R E L 8.80

BY

Karl G. J”reskog & Dag S”rbom

ssss

Covariance Matrix

	Tobin_Q	EM	ROE
Tobin_Q	0.99		
EM	0.92	0.99	
ROE	0.59	0.51	0.89

ssss

Number of Iterations = 0

LISREL Estimates (Maximum Likelihood)

Structural Equations

Tobin_Q = 0.83*EM + 0.19*ROE, Errorvar.= 0.12 , Rý = 0.88
(0.018) (0.019) (0.0073)
45.81 10.13 15.78

EM = 0.57*ROE, Errorvar.= 0.71 , Rý = 0.29
(0.040) (0.045)
14.16 15.78

Reduced Form Equations

```
Tobin_Q  = 0.66*ROE, Errorvar.= 0.60, Rý = 0.39
          (0.037)
           17.99

EM       = 0.57*ROE, Errorvar.= 0.71, Rý = 0.29
          (0.040)
           14.16


        Variances of Independent Variables

           ROE
           --------
               0.89
             (0.06)
              15.78

        Covariance Matrix of Latent Variables

           Tobin_Q    EM         ROE
           --------   --------   --------
Tobin_Q        0.99
EM             0.92       0.99
ROE            0.59       0.51       0.89


                          Goodness of Fit Statistics

                             Degrees of Freedom = 0
                Minimum Fit Function Chi-Square = 0.0 (P = 1.00)
       Normal Theory Weighted Least Squares Chi-Square = 0.00 (P = 1.00)
        Chi-Square Difference with 0 Degree of Freedom = 0.00 (P = 1.00)

                 The Model is Saturated, the Fit is Perfect !


ssss

Factor Scores Regressions

        Y

            Tobin_Q         EM        ROE
           --------   --------   --------
 Tobin_Q       1.00       0.00       0.00
      EM       0.00       1.00       0.00

        X

            Tobin_Q         EM        ROE
           --------   --------   --------
     ROE       0.00        - -       1.00

ssss

Standardized Solution

        BETA
```

```
           Tobin_Q    EM
           --------   --------
Tobin_Q         - -       0.83
EM              - -        - -

        GAMMA

           ROE
           --------
Tobin_Q        0.18
EM             0.54

        Correlation Matrix of Y and X

           Tobin_Q    EM         ROE
           --------   --------   --------
Tobin_Q        1.00
EM             0.93       1.00
ROE            0.63       0.54       1.00

        PSI
        Note: This matrix is diagonal.

           Tobin_Q    EM
           --------   --------
               0.12       0.71

        Regression Matrix Y on X (Standardized)

                 ROE
           --------
 Tobin_Q       0.63
      EM       0.54

ssss

Total and Indirect Effects

        Total Effects of X on Y

           ROE
           --------
Tobin_Q        0.66
             (0.04)
              17.99
EM             0.57
             (0.04)
              14.16

        Indirect Effects of X on Y

           ROE
           --------
Tobin_Q        0.47
             (0.03)
              13.53
EM              - -

        Total Effects of Y on Y
```

```
           Tobin_Q    EM
           --------   --------
Tobin_Q         - -       0.83
                        (0.02)
                         45.81
EM              - -        - -

   Largest Eigenvalue of B*B' (Stability Index) is   0.686

ssss

Standardized Total and Indirect Effects

        Standardized Total Effects of X on Y

           ROE
           --------
Tobin_Q        0.63
EM             0.54

        Standardized Indirect Effects of X on Y

           ROE
           --------
Tobin_Q        0.44
EM              - -

        Standardized Total Effects of Y on Y

           Tobin_Q    EM
           --------   --------
Tobin_Q         - -       0.83
EM              - -        - -

                          Time used:    0.000 Seconds
```