5th set of assignments Financial Econometrics- solutions

5.1 using avewret

System: CAPM
Estimation Method: Generalized Method of Moments
Date: 06/21/05   Time: 17:11
Sample: 1947:2 1993:4
Included observations: 187
Total system (balanced) observations 1870
Kernel: Bartlett, Bandwidth: Fixed (4), No prewhitening
Identity weighting matrix - 2SLS coefficients with GMM standard errors

<table>
<thead>
<tr>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C(1)</td>
<td>1.067309</td>
<td>0.056669</td>
<td>18.83400</td>
</tr>
<tr>
<td>C(2)</td>
<td>-3.211099</td>
<td>1.694037</td>
<td>-1.895531</td>
</tr>
</tbody>
</table>

Determinant residual covariance: 9.79E-35
J-statistic: 0.011896

J-Statistics: (for calculation: see assignment sheet)
jval = 2.2245
pval = 0.9733

5.1 using avwret

System: CAPM2
Estimation Method: Generalized Method of Moments
Date: 06/21/05   Time: 17:29
Sample: 1947:2 1993:4
Included observations: 187
Total system (balanced) observations 1870
Kernel: Bartlett, Bandwidth: Fixed (4), No prewhitening
Identity weighting matrix - 2SLS coefficients with GMM standard errors

<table>
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<th>Coefficient</th>
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</tr>
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<tbody>
<tr>
<td>C(1)</td>
<td>1.132061</td>
<td>0.088452</td>
<td>12.79854</td>
</tr>
<tr>
<td>C(2)</td>
<td>-6.997747</td>
<td>3.561610</td>
<td>-1.964771</td>
</tr>
</tbody>
</table>

Determinant residual covariance: 1.38E-33
J-statistic: 0.010975

J-Statistics:
jval2 = 2.0523
pval2 = 0.9794
5.2 using avewret

System: CAPM_EX
Estimation Method: Generalized Method of Moments
Date: 06/21/05   Time: 17:33
Sample: 1947:2 1993:4
Included observations: 187
Total system (balanced) observations 1870
Kernel: Bartlett, Bandwidth: Fixed (4), No prewhitening
Identity weighting matrix - 2SLS coefficients with GMM standard errors

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<tbody>
<tr>
<td>C(2)</td>
<td>-3.635131</td>
<td>0.800801</td>
<td>-4.539369</td>
</tr>
</tbody>
</table>

Determinant residual covariance | 2.03E-36
J-statistic | 0.013363

J-Statistics:
\[ jval_{ex} = 2.4988 \]
\[ pval_{ex} = 0.9809 \]

5.2 using avvwerp

System: CAPM_EX2
Estimation Method: Generalized Method of Moments
Date: 06/21/05   Time: 17:34
Sample: 1947:2 1993:4
Included observations: 187
Total system (balanced) observations 1870
Kernel: Bartlett, Bandwidth: Fixed (4), No prewhitening
Identity weighting matrix - 2SLS coefficients with GMM standard errors

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</tr>
</thead>
<tbody>
<tr>
<td>C(2)</td>
<td>-4.924601</td>
<td>1.082375</td>
<td>-4.549809</td>
</tr>
</tbody>
</table>

Determinant residual covariance | 2.49E-36
J-statistic | 0.013145

J-Statistics:
\[ jval_{ex2} = 2.4581 \]
\[ pval_{ex2} = 0.9820 \]
5.3 using avewret

System: FAMA_FRENCH
Estimation Method: Generalized Method of Moments
Date: 06/21/05 Time: 17:53
Sample: 1947:2 1993:4
Included observations: 187
Total system (balanced) observations 1870
Kernel: Bartlett, Bandwidth: Fixed (4), No prewhitening
Identity weighting matrix - 2SLS coefficients with GMM standard errors

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<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C(1)</td>
<td>0.631875</td>
<td>1.768560</td>
<td>0.0771</td>
</tr>
<tr>
<td>C(2)</td>
<td>-0.257423</td>
<td>-0.654534</td>
<td>0.5128</td>
</tr>
<tr>
<td>C(3)</td>
<td>-0.853027</td>
<td>-2.050007</td>
<td>0.0405</td>
</tr>
</tbody>
</table>

Determinant residual covariance 4.57E-64
J-statistic 0.017830

J-Statistics:
\[ jval_{fafr} = 3.3343 \]
\[ pval_{fafr} = 0.8525 \]

Wald Test:
System: FAMA_FRENCH

<table>
<thead>
<tr>
<th>Test Statistic</th>
<th>Value</th>
<th>df</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-square</td>
<td>9.944229</td>
<td>2</td>
<td>0.0069</td>
</tr>
</tbody>
</table>

5.3 using avvwret

System: FAMA_FRENCH2
Estimation Method: Generalized Method of Moments
Date: 06/21/05 Time: 17:53
Sample: 1947:2 1993:4
Included observations: 187
Total system (balanced) observations 1870
Kernel: Bartlett, Bandwidth: Fixed (4), No prewhitening
Identity weighting matrix - 2SLS coefficients with GMM standard errors

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<tbody>
<tr>
<td>C(1)</td>
<td>-0.542606</td>
<td>-1.099319</td>
<td>0.2718</td>
</tr>
<tr>
<td>C(2)</td>
<td>-0.776924</td>
<td>-1.731467</td>
<td>0.0835</td>
</tr>
<tr>
<td>C(3)</td>
<td>-0.101936</td>
<td>-0.227947</td>
<td>0.8197</td>
</tr>
</tbody>
</table>

Determinant residual covariance 3.05E-60
J-statistic 0.012763

J-Statistics:
\[ jval_{fafr2} = 2.3868 \]
\[ pval_{fafr2} = 0.9354 \]

Wald Test:
System: FAMA_FRENCH2

<table>
<thead>
<tr>
<th>Test Statistic</th>
<th>Value</th>
<th>df</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi-square</td>
<td>1855.244</td>
<td>3</td>
<td>0.0000</td>
</tr>
</tbody>
</table>