NEW YORK UNIVERSITY
Stern School of Business

C15.0041
Investment Principles

Prof. M. Keenan
September, 1999

LESSON 26

Lecture Topics

1. basics of bond valuation model
2. Citigroup
3. Merck
4. General Motors

Notes

1. Final Examination will cover class discussion plus the following textbook chapters:
   chapters 1 - 16
   chapter 19
   You may bring two sheets of equations / notes /etc. and calculator.
   Exam is on Tuesday, December 21st, 8:00-9:50am, this room (UC 65)

2. Security analysis reports will be returned at the end of the final examination (groups ---
   have you made arrangements for each member to keep a copy of the report?). I will be
   around just about every day before the exam. Stop up (Tisch 9-05) or give me a call for
   a time (998-0355) if you have questions.

3. The Fisher Bond model:

\[ y = a (X_1)^b (X_2)^c (X_3)^d (X_4)^e \]

RESULTS: \[ a = 10.00 ; b = 0.30 ; c = -0.25 ; d = -0.50 ; e = -0.30 \]

<table>
<thead>
<tr>
<th>means of logs</th>
<th>value</th>
<th>variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>y</td>
<td>.178</td>
<td>1.51 risk premium</td>
</tr>
<tr>
<td>X_1</td>
<td>- .122</td>
<td>0.76 earnings variability</td>
</tr>
<tr>
<td>X_2</td>
<td>1.407</td>
<td>25.53 years of solvency</td>
</tr>
<tr>
<td>X_3</td>
<td>.323</td>
<td>2.10 leverage (equity / debt)</td>
</tr>
<tr>
<td>X_4</td>
<td>.879</td>
<td>7.57 bonds in mm of dollars</td>
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</tbody>
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\[ y = 10.0 ( .8 )^{ -0.30 } (25.5)^{-0.25} (2.1)^{-0.50} (7.6)^{-0.30} = 1.56 \]