Debt and the managerial Entrenchment in U.S

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Abstract:  
This article uses the recent developments in the econometrics of non-stationary dynamic panels to reassess the relationship between the managerial entrenchment and the debt. The test of Im, Pesaran and Shin (2003) and the test of Pedroni (2004) were applied on a sample of 70 U.S. firms over the period (2000-2009) to verify the existence of long term equilibrium between the debt of the firm and one measure of the managerial entrenchment.

Keywords: Managerial entrenchment, C.E.O, Debt, Cointegration, Unit root test.

1. Introduction  
A considerable body of research has focused on managers deviating from optimal level of debt due to conflict of interest between managers and shareholders. Higher debt financing increases the commitment and pressure to distribute surplus cash as repayment of debt obligations (Jensen 1986). Thus, entrenched managers prefer debt financing with low debt. Another stream of research suggests that entrenched managers have greater
incentives to increase debt beyond the optimal level to reduce the probability of successful takeovers by increasing the concentration of their shareholdings, which enables them to have greater control of in their firms (Harris and Raviv (1988) and Stulz (1988)).

Berger, Ofek, and Yermack (1998) show that corporate executives tend to use the debt more aggressively when faced with control threat. Zwiebel (1996) argues that although employing debt restricts managers and leads to a loss of entrenchment, managers find it useful to employ debt to avert control challenge.

We then examine factors may affect the association between the debt and the managerial entrenchment. We find that the negative association between the debt and the managerial entrenchment is more pronounced in firms with higher agency costs of free cash flow. Thus, in firms with entrenched the managerial, those with greater managerial discretion associated with free cash flow have lower debt. We interpret our result as suggesting that high agency costs of free cash flow exacerbates the agency costs associated with the managerial entrenchment, resulting in lower level of debt.

This result suggests that in firms with the managerial entrenchment, those with high free cash flow are even less likely to fund their financing deficit with debt. In other words, the effect of the managerial entrenchment on net debt issued is more pronounced in firms with high agency costs of free cash flow. In firms with entrenched managers, those with high institutional equity ownership are more likely to fund their financing deficit with debt. Hence, the effect of the debt on the managerial entrenchment issued is mitigated by large institutional equity ownership, suggesting institutional shareholders play an effective monitoring role.
The rest of the paper proceeds as follows. Section 2 develops the hypothesis and places our paper in the context of related research. Section 3 describes the sample. Section 4 presents our results. We conclude the paper in section 5.

2. Prior Research and Hypothesis

The literature provides evidence that agency conflicts among the firm’s three main stakeholders (managers, stockholders, and bondholders) affect firm financing policies (Myers (1977), Jensen and Meckling (1976) and Jensen (1986)). These agency conflicts can be mitigated by a variety of governance mechanisms, one of which is managerial ownership. The relation between the debt and the managerial entrenchment, however, is closely linked to the market for corporate control (i.e., takeover market) through takeover defenses.

Jung, Kim and Stulz (1996) provide evidence supporting the entrenchment affecting financing choices. They find that equity issuers are low-debt firms with limited investment opportunities. These results suggest that agency costs of managerial discretion lead certain firms to issue equity when debt issuance would be the firm-value enhancing alternative.

Morck, Shleifer, and Vishny (1988) and Stulz (1988) find that ownership below a certain limit decreases entrenchment because of the closer alignment between shareholders and managers. Beyond a certain limit, however, managerial entrenchment increases with ownership since managers can exert control on their own. Furthermore, Agrawal and Nagarajan (1990) compare all equity firms with levered firms and find a negative relation between the debt and the entrenchment managerial.
Using a sample of 452 industrial firms in the United States, Berger, Ofek and Yermack (1997) find that the debt is negatively associated with the degree of entrenchment of managers. Specifically, they find that debt is lower when the manager has a long tenure in office, has weak compensation incentives, and does not face strong monitoring from the board of directors. In further analysis of debt changes, they find that debt increases significantly in the aftermath of events that represent entrenchment-reducing shocks to managerial security such as unsuccessful tender offers.

Thus, on balance, entrenched C.E.O of U.S. firms is likely to prefer lower corporate debt to avoid the monitoring associated with debt financing. If C.E.O in U.S. firms face less entrenchment-reducing shocks to managerial security such as unsuccessful tender offers and involuntary C.E.O replacements, the degree of C.E.O entrenchment will be higher.

Our hypothesis is

H1: In US firms, the debt is negatively associated with the entrenchment managerial.

3. Data and Method

3.1 Sample Construction

We begin with the Worldscope database to identify listed firms in USA for the period 2000 to 2009. We exclude financial institutions because of their unique financial structure. We eliminated observations with extreme values of financial statement variables. This procedure yields an initial sample of 100 firms. In view of the costs of manually collecting entrenchment managerial and ownership variables from the annual reports, we randomly select 70 firms to obtain 70% of the firms in the initial sample. We obtain annual reports for fiscal year 2000 to 2009 from the Global Report database and company websites. Our final sample consists of 100 firms for 70 firm-year observations.
during the period 2000 to 2009 in USA. On average, our final sample accounts for 70% of the market capitalization of the all the listed firms in this country.

3.2 Empirical Model

We use the following regression model below to test the association between the debt and the entrenchment managerial:

\[ \text{AGE}_{it} = \beta_0 + \beta_1 \text{L1}_{it} + \beta_2 \text{L2}_{it} + \beta_3 \text{TAILL}_{it} + \beta_4 \text{AG}_{it} + \beta_5 \text{Q}_{it} + \beta_6 \text{S}_{it} + e_{it} \]  

(1)

Where:

- **AGE**: The age of the leader.
- **L1**: Total debt in book value
- **L2**: Total debt in market value
- **TAILL**: Firm size
- **AG**: Firm age
- **Q**: Opportunities of growth
- **S**: Structure of asset
- **e** is the error term.

The C.E.O control over the internal monitoring mechanisms increases as his tenure increases. The entrenchment managerial who is insulated from the threat of disciplinary action from the managerial labour market and the market for corporate control is likely to have a larger number of years in the office. We compute the C.E.O tenure as the number of years in office until the start of the current year (TENURE).

Hypothesis H1 predicts that, the debt is negatively associated with the entrenchment managerial.
4. Results

4.1 The panel unit root and the panel cointegration tests

The checking of non-stationary properties for all panel variables leads us to study the existence of a long run relation between these variables. The cointegration study by applying Pedroni cointegration tests based on unit root tests on residues estimated. Cointegration tests on panel data consist in testing the presence of unit root in the estimated residues. However, the problem of fallacious regressions, of the time series, also arises in the case of panel data.

In order to determine the presence of a unit root in individual firm specific data we employ standard ADF test. For a panel unit root we conduct Levin-Lin (1992) and IPS t-bar (1997) tests. Both the panel tests include a constant and a heterogeneous time trend in their specifications. The test results show that the unit root null could not be rejected and hence the series are generated by an I (1) process.

Pedroni developed seven tests of cointegration on homogeneous and heterogeneous panel data, these tests take into account heterogeneity on the level of cointegration relation i.e. for each individual there are one or more cointegration relations not necessarily identical for each individual of panel.

Next we perform cointegration tests for all the sample individual firms by using Johansen and Juselius (1990) method and for the panel by using Pedroni (1999) procedure. We find the evidence of no cointegration from both individual and panel cointegration tests. So, the PPP does not hold in the long-run in this context. To conserve space we report only panel unit root (upper panel) and panel cointegration (lower panel) results in Table 1.

4.2 FMOLS and DOLS

Phillips and Moon (1999) showed that within framework of panel data, FMOLS and DOLS techniques leads to estimators asymptotically distributed according to a reduced
centred normal law. All the same, Pedroni (1996) affirms that estimators OLS his super-convergent, whereas their asymptotic distributions is skewed and depends on the parameters effects. According to Pedroni, these problems can be marked in heterogeneity presence. For our model estimated cointegrant vectors by FMOLS method is given by (t-student between brackets):

$$
\beta' = \begin{pmatrix}
1 & -1.88 & 1.77 & 2.24 & 0.05 & 2.26 & 5.53 \\
- & (-10.13) & (24.87) & (50.66) & (147.93) & (-1.67) & (-14.48)
\end{pmatrix}
$$

5. Conclusion

The goal of this paper is to estimate the association between the debt and the entrenchment managerial in USA for the period 2000 – 2009. Thus, we posit that entrenched CEOs have incentives to avoid the monitoring associated higher debt so that they have more discretion over corporate resources. We find that firms with higher the entrenchment managerial. have lower level of debt. Specifically, firms with CEO who chairs the board and higher CEO tenure have lower debt.

We also predict that the combination of the entrenchment managerial and the debt exacerbates the agency costs of managerial discretion and results in lower debt. Consistent with our hypothesis, we find that the negative association between the entrenchment managerial and the debt is more pronounced in firms with higher agency costs of free cash flow. Finally, we document that for the sub-sample of firms with entrenched CEOs, those with greater institutional investors’ equity ownership have higher debt. This result suggests large institutional shareholders play an important corporate governance role to mitigate entrenched CEOs’ incentives to avoid debt.
References


Levin, A. et Lin, C. F. (1992), «Unit root tests in panel data: asymptotic and finite sample properties», Department of Economics, University of California at San Diego, Discussion paper no. 92-93


Annexure

Table 1: Panel Unit Root and Cointegration Test Statistics

<table>
<thead>
<tr>
<th>Statistique</th>
<th>AGE</th>
<th>L1</th>
<th>L2</th>
<th>Taill</th>
<th>AG</th>
<th>Q</th>
<th>S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Levin-Lin ADF-stat</td>
<td>2,507</td>
<td>-1,499</td>
<td>-2,397</td>
<td>2,146</td>
<td>3,747</td>
<td>-4,587</td>
<td>0,156</td>
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<tr>
<td>IPS ADF-stat</td>
<td>3,180</td>
<td>-5,254</td>
<td>-13,353</td>
<td>1,496</td>
<td>4,803</td>
<td>-10,319</td>
<td>-0,857</td>
</tr>
</tbody>
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Panel Cointegration Tests

<table>
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<tr>
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</thead>
<tbody>
<tr>
<td>AGE, L1, L2, TAILL, AG, Q, S</td>
<td>-3,819</td>
<td>10,007</td>
<td>-7,415</td>
<td>0,302</td>
<td>13,567</td>
<td>-13,047</td>
<td>-6,657</td>
</tr>
</tbody>
</table>

Notes:

a. The critical values are from Levin and Lin (1992).
b. IPS indicates the Im et al. (1997) test.
c. Unit root tests include a constant and heterogeneous time trend in the data.
d. The critical values for the panel cointegration tests are base on Pedroni (2001).