The Impact of Corporate Governance on Investment Returns in Developed and Developing Countries

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Three conundrums

- why do investments out of different sources of finance earn different returns,
- why do different studies report different patterns of returns,
- why do companies in developing countries make greater use of external capital to finance their investment than do companies in developed countries? (or the Singh Paradox)
Background

- Hierarchy of finance
- Empirical evidence on returns on investment
- Singh Paradox
Hierarchy of finance

e. g., Hubbard (1998):
Firms first resort to internal cash flows to finance their investments,
secondly to issuing debt and last of all to the equity market
Returns on investment

- Baumol, Heim, Malkiel and Quandt (1970)
- Cash Flow: 3.0 – 4.6
- New Debt: 4.2 – 14.0
- New Equity: 14.5 – 20.8
- Many follow-up studies mainly confirming BHMQ results
Singh Paradox

- Transaction Costs
- Asymmetric Information
- Agency Costs

No reason to believe that these factors are less severe in developing countries
Corporate Governance Institutions

- weaker in developing than in developed countries
- thus provide less of a check on managers in developing countries who wish to issue equity to finance low return investments.
- Managers who wish to undertake low return investments in countries with strong corporate governance systems accordingly prefer to rely on internal cash flows to finance these investments
## Summary

<table>
<thead>
<tr>
<th>Country</th>
<th>Corporate Governance Institutions</th>
<th>Easiest way to fund „bad“ investments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developed</td>
<td>Strong</td>
<td>Cash Flow</td>
</tr>
<tr>
<td>Developing</td>
<td>Weak</td>
<td>Cash Flow Equity</td>
</tr>
</tbody>
</table>
Hypotheses

Agency problems can exist in any country.

For these problems to manifest themselves as low returns on investment, two conditions must be satisfied

1) Managerial Job Security
2) Ability to raise funds to finance investments
The first condition is related to corporate governance structures. Where they align managerial and shareholders’ interests ceteris paribus firms will earn higher returns on investment out of all sources of funds.

We define a corporate governance system that brings about such an alignment as being strong, and formulate
Hypothesis 1: In countries with strong corporate governance systems the average $q_{ml} \geq 1$, where $q_{ml}$ is the ratio of the returns on a company's total investment to its cost of capital.

Hypothesis 2: In countries with weak corporate governance systems the average $q_{ml} < 1$. 
Two criteria for classifying countries:

- The level of development
Hypothesis 3: Countries with English-origin legal systems have strong corporate governance systems, while countries with civil-law legal systems have weak corporate governance systems.

Hypothesis 4: Developed countries have stronger corporate governance systems than developing countries.
Hypothesis 5: For companies with $q_{ml} < 1$, $1 > q_{mD} > q_{mCF}$, and $q_{mD} > q_{mE}$, where $q_{mCF}$, $q_{mD}$ and $q_{mE}$ are the marginal $qs$ on reinvested cash flows, new debt and new equity.

Hypothesis 6: For companies with $q_{ml} > 1$, $q_{mCF} > q_{mD} > 1$. 
Hypothesis 7: For companies with $q_{mi} \geq 1$, $q_{me} > q_{md} \geq 1$.

Hypothesis 8: For companies with $q_{mi} \geq 1$, the variance around $q_{me}$ exceeds the variance around $q_{md}$.

Hypothesis 9: When the pattern $q_{mcf} < q_{md} < q_{me}$ is observed, it will only be for samples that include companies with both $q_{mi} \geq 1$, and $q_{mi} < 1$. 
Accounting Standards

The Center for International Financial Analysis and Research (Bavishi, 1993):
Median 64, Portugal 36, Sweden 83, Turkey 51

Hypothesis 10: In countries with strong accounting standards, $q_{mCF}$ and $q_{mE}$ are higher than in countries with weak accounting standards.
Contract Enforceability


**Hypothesis 11:** In countries with strong contract enforcement, $q_{mCF}$ and $q_{mE}$ are higher than in countries with weak enforcement.
Rights of creditors

LLSV (1998): Median 2, Turkey 2

Hypothesis 12: In countries with strong creditor rights, $q_{mD}$ is higher than in countries with weak creditor rights.
Hypothesis 13: In countries with strong corporate governance systems, $\Delta E/I$ is higher for companies with $q_{m/} \geq 1$ than for companies with $q_{m/} < 1$.

Hypothesis 14: In countries with weak corporate governance systems, $\Delta E/I > \Delta D/I$ for companies with $q_{m/} < 1$.

Hypothesis 15: For companies with $q_{m/} < 1$, $\Delta E/I$ is greater in countries with weak corporate governance systems than in countries with strong corporate governance systems.
Methodology

\[ PV_t = \sum_{j=1}^{\infty} \frac{CF_{t+j}}{(1+i_t)^j} \]

\[ PV_t = \frac{I_t r_t}{i_t} = q_{mt} I_t \]

\[ M_t = M_{t-1} + PV_t - \delta_t M_{t-1} + \mu_t \]

\[ M_t - M_{t-1} = q_{mt} I_t - \delta_t M_{t-1} + \mu_t \]
Basic Equations

\[ \frac{M_t - M_{t-1}}{M_{t-1}} = -\delta + q_{mI} \frac{I_t}{M_{t-1}} + \frac{\mu_t}{M_{t-1}} \]

\[ I = CF + DEP - DIV + \Delta D + \Delta E + R & D + ADV \]

\[ \frac{M_t - M_{t-1}}{M_{t-1}} = -\delta + q_{mCF} \frac{CF_t}{M_{t-1}} + q_{mD} \frac{\Delta D_t}{M_{t-1}} + q_{mE} \frac{\Delta E_t}{M_{t-1}} + \frac{\mu_t}{M_{t-1}} \]
Advantages of using $q_m$

- $q_m$ is essentially a marginal Tobin’s q and is a better measure to look at agency problems

- No need to know $i$

- Company risk considered
Data

- *Global Vantage and Compustat*
- Banks, financial companies, and some service industries excluded
- 19,010 listed companies from 61 countries
# Estimates of $q_{ml}$ by Country Group

<table>
<thead>
<tr>
<th>Category</th>
<th>$q_{ml}$</th>
<th>Firms</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Origin</td>
<td>1.02</td>
<td>13,553</td>
</tr>
<tr>
<td>Civil Law</td>
<td>0.68</td>
<td>5,457</td>
</tr>
<tr>
<td>Developed</td>
<td>0.97</td>
<td>16,327</td>
</tr>
<tr>
<td>Developing</td>
<td>0.77</td>
<td>2,683</td>
</tr>
</tbody>
</table>
The Impact of Strong Accounting Standards

- All developed, English origin countries have strong accounting standards.
- 28 of 30 possible comparisons between strong and weak systems suggest an improvement in investment returns.
- This comes in part at the cost of debt holders.
The Impact of Strong Contract Enforcement

- No developed, English origin country has weak contract enforcement
- No developing, civil law country has strong contract enforcement

- 21 of 24 possible possible comparisons suggest an improvement
The Impact of Strong Creditor Rights

- All developing countries with English origin legal systems have strong creditor rights.
- Most estimates for countries with weak creditor rights are equal to or greater than one.
- Not much room for improvement.
<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>$\Delta E/I$ for</th>
<th>$q_{mf} \geq 1$</th>
<th>$q_{mf} &lt; 1$</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Origin</td>
<td>$mIq \geq 1$</td>
<td>0.217</td>
<td>&gt;</td>
</tr>
<tr>
<td>Developed</td>
<td>$mIq &lt; 1$</td>
<td>0.218</td>
<td>&gt;</td>
</tr>
</tbody>
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<tr>
<td>$\Delta E/I$</td>
<td>$\Delta D/I$</td>
</tr>
<tr>
<td>Civil Law</td>
<td>0.170</td>
</tr>
<tr>
<td>Developing</td>
<td>0.228</td>
</tr>
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<table>
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<th>Firms with</th>
<th>$q_{mf} &lt; 1$</th>
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</thead>
<tbody>
<tr>
<td>Share of Equity Finance</td>
<td>English Origin</td>
</tr>
<tr>
<td>0.152</td>
<td>=</td>
</tr>
<tr>
<td>Developed</td>
<td>Share of Equity Finance</td>
</tr>
<tr>
<td>0.145</td>
<td>&lt;</td>
</tr>
</tbody>
</table>
Implications

The results do not imply that countries with weak corporate governance systems will necessarily exhibit poor economic performance measured in terms, say, of growth rates in income per capita.
Implications II

- Weak corporate governance system $\rightarrow$ a thin equity market
- Do large equity markets contribute positively to a country’s economic performance?
Levine and Zervos (1998), Rajan and Zingales (1998), or Demirgüç-Kunt and Maksimovic (1998) suggest that they do!

If weak CG systems lead to thin equity markets, which in turn lead to slower economic growth, then countries which strengthened their CG systems could anticipate improved investment and growth performance.
Change the entire legal system to achieve better investment performance?

Yes, it is difficult!

However, even more modest reforms can have a significant impact on performance.

Such reforms should be feasible for both developed and developing countries regardless of the origins of their legal systems.