Promoting Innovation: The Law of Publicly Traded Corporations

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Ultimate Real Economy Goal

- Match scarce savings with the most promising investment projects
- Highly promising projects typically innovation based
- Financing innovation based projects thus needs special attention

Spin-offs

One or a group of employees of an established firm leave to form a new firm based on an idea developed while in their previous employment

Spin-offs are Vital to Implementation of Innovative Projects

Employees of large, established firms are a rich source of innovative project proposals

- large firm’s physical and organizational assets facilitate discoveries

Established firms often fail to implement promising project proposals

- large portion of most important U.S. innovation based firms grew out of spin-offs

Spin-offs represent *established firm finance failures*: without spin-offs, highly promising project proposals would go to waste

The Spin-off Phenomenon Has Important Implications for the Structure and Allocation of Investment Decisionmaking in the Economy

Minimize the number of promising proposals passed up by established firms

- Requires discipline of established firm managers

Maximize the number promising spin-off proposals that are financed

- Requires the facilitation of venture capital

Regulation of public equity markets is relevant to both concerns

Existing Literature on Spin-offs

Spin-offs typically receive their initial financing from a venture capitalist, not from a public offering of shares.

Focus of the existing literature:

- the optimal contract between the venture capitalist and the entrepreneur
- constraints on would-be entrepreneurs by rules relating to intellectual property

Role of Public Equity Markets Comes in "Through the Back Door:" Black & Gilson

- Thesis that the optimal contract is structured around the availability of the venture capitalist's exit through an IPO.

- Used to explain why innovation based spin-offs occur in much greater numbers in the United States than in Germany or Japan.

- Theory: more "vibrant" public equity market in the United States makes this optimal form of venture capital contract more available in the United States than elsewhere.

Black & Gilson’s Focus on “Vibrant” Public Equity Markets Underdeveloped

- Public equity markets not only need to have substantial scale and high liquidity
- Need to be well functioning as well, i.e., have relatively accurate prices and transparency

Issues Addressed

How established firms fail to implement innovative project proposals developed by their employees

Role of well functioning equity markets

- in reducing the number of opportunities missed by established firms
- in forcing the payout of cash flow when these opportunities are missed
- in steering venture capital to the most promising spin-off proposals

Role of securities regulation in promoting well functioning equity markets

Established Firm Finance Pathology #1

Failure to *identify* positive NPV projects that the firm is particularly well positioned to develop

- incentive tradeoffs between idea development and idea identification
- organizational blind spots from established modes of information processing

Established Firm Finance Pathology # 2

Failure to *implement* positive net present value project that firm does identify

- managers reject a positive net present value project to avoid personal risk

Reason: innovative projects tend to have high unsystematic risk.

- managers avoid because they cannot diversify away the unsystematic risk
- shareholders and society as a whole risk neutral with respect to such risks.

Established Firm Finance Pathology # 3

Use of internally generated cash flow to invest in new negative net present value projects

Reason: managerial preference for firm growth stronger than for maximizing share value.

Perverse interactions with Pathologies #1 and #2:

- passing up innovative positive net value projects leaves more cash flow to invest in negative net present value projects if that is the only way to maximize growth

Offering-registration-based disclosure regulation and dividend taxes also contribute

Schools of Thought Concerning Importance of Share Price Accuracy for the Real Economy

- Irrelevant for theoretical reasons (Banoff, Romano)
- Irrelevant for institutional reasons (Stout)
- Relevant for theoretical reasons (Coffee, Fox, Kahan, Mahoney)

Irrelevant for Theoretical Reasons

EMH assures that prices will be unbiased and hence fair

Under CAPM

- Changes in share price accuracy only affect unsystematic risk
- Market does not reward changes in unsystematic risk so increased share price accuracy is not welfare enhancing

Implicit View Behind the Theoretical Irrelevance Position

Equity is simply as a place for investors to store wealth

The social function of the stock market

- Facilitate the trading of financial assets, hedging, diversification, and pooling of risk

Irrelevant for Institutional Reasons

- Acknowledges the theoretical argument that share price accuracy benefits the real economy

- Dismisses the importance of this effect due to the institutional reality that only a small portion of all new real investment is funded by public offerings of equity

Relevance Arguments

Share price accuracy significantly affects:

- Choice among new proposed real investment projects in the economy
- The operation of existing real assets

Theoretical irrelevance position's focus only on the risk allocation function of securities markets is too narrow

Greater Price Accuracy in the *Primary* Market Produces Social Benefits Directly.

For issuer share offerings to finance a new project

- more accurate prices bring the issuer's cost of capital closer to the opportunity cost of investing society's scarce savings
- this improves the extent to which scarce savings are matched with the most promising projects

Primary Market, *cont.*

For spin-off venture capital

- the prospect that the best spin-off ventures *ex post* will be identified more accurately at time of the venture capitalist's exit adds to its incentive *ex ante* to find the best spin-off ideas to fund.

- also gives more resources for reinvestment in new spin-offs to those venture capitalists who chose good spin-offs in the past

Greater Price Accuracy and Transparency in the *Secondary* Market Produces Social Benefits Indirectly.

Assists the social devices that limit the extent to which managers of established public corporations place their own interests above those of their shareholders (the agency costs of management)

Thus it reduces the three established firm "pathologies"

Secondary Market, *cont.*

Specifically, increased share price accuracy and transparency enhances effectiveness of

- *Shareholder franchise* and shareholder enforcement of management's *fiduciary duties*, by signaling where problems
- Threat of *hostile takeover* when managers engage in non-share-value-maximizing behavior, by making takeovers less risky for potential acquirers
- *share price based management compensation*, by reducing the riskiness associated with holding an issuer's stock in a less than fully diversified portfolio and thus increasing management willingness to take a larger portion of compensation in this form

Institutional Skeptics Have Too Narrow a Perspective

Ignore indirect effects of more accurate prices in secondary markets

- especially important for funding innovation through spin-offs since biggest agency cost is overretention of cash flow and investment in negative NPV projects

More accurate secondary market prices also improve capital allocation when an established firm uses non-equity external sources of capital such as borrowings and debt offerings

Role of Mandatory Disclosure

Without regulation: issuers will disclose at a suboptimally low level because of externalities

Private costs of disclosure greater than social costs

- competitors, major customers, major suppliers

Private benefits of disclosure less than social costs

- usefulness of one firm's disclosure in assessing others

Structure of Sanctions for Violations

Rules without sanctions irrelevant

- civil liability a helpful sanction

Sanctions should not penalize choice to finance externally

- otherwise, there is an incentive for internal finance which hurts innovation

Conclusions

- Well functioning public equity markets are important for promoting innovation even though much innovative investment is financed by private equity

- Properly designed disclosure regulation needed for public markets to function well