Agency Theory Summary
By Don Delves and Brian Patrick

An agency relationship is one in which “one or more persons (the principal[s]) engage another person (the agent) to perform some service on their behalf which involves delegating some decision making authority to the agent”1 Perhaps the most recognizable form of agency relationship is that of employer and employee. Other examples include state (principal) and ambassador (agent); constituents (principal) and elected representative (agent); organization (principal) and lobbyist (agent);2 or shareholders (principal) and CEO.

Agency theory is the study of the agency relationship and the issues that arise from this, particularly the dilemma that the principal and agent, while nominally working toward the same goal, may not always share the same interests. The literature on agency theory largely focuses on methods and systems—and their consequences—that arise to try to align the interests of the principal and agent. While the agent/principal dilemma in a corporate context had been pondered as early as the 18th century by Adam Smith3—and many of its key concepts were developed in literature on the firm, organizations, and on incentives and information4—a separate theory of agency did not emerge until the early 1970s when Stephen A. Ross and Barry M. Mitnick, working independently, each presented a theory of agency.

3 “The directors of [joint-stock] companies, however, being the managers rather of other people’s money than of their own, it cannot well be expected, that they should watch over it with the same anxious vigilance with which the partners in a private copartnery frequently watch over their own. Like the stewards of a rich man, they are apt to consider attention to small matters as not for their master’s honour, and very easily give themselves a dispensation from having it. Negligence and profusion, therefore, must always prevail, more or less, in the management of the affairs of such a company.” – The Wealth of Nations, 1776.
Ross presented his paper entitled *The Economic Theory of Agency: The Principal's Problem* at the annual meeting of the American Economic Association in December 1972. This paper outlined agency as a universal principle and not just a theory of the firm. Even so, the rather brief paper limited its scope to the problem of incentive and laid out a model for inducing the agent to produce maximum gains for the principal.

By contrast, Mitnik's paper, entitled *Fiduciary Rationality and Public Policy: The Theory of Agency and Some Consequences* and presented at the annual meeting American Political Science Association in 1973, laid out a much more general theory of agency with possible application to numerous societal contexts. Mitnick identified the problems of agency as 1) the principal's problem, 2) the agent's problem, 3) policing mechanisms and incentives. The principal's problem is to motivate the agent to act in a manner that will achieve the principal's goals. Examples of motivational tools are financial incentives, prospect of sanctions, and supplying information to activate norms (such as loyalty or obedience) and preferences that coincide with the principal's goals. The agent's problem is that he may be faced with decisions to act either in the principal's interest, his own interest, or some compromise between the two when they do not coincide. Policing mechanisms are mechanisms and incentives intended to limit the agent's discretion, such as surveillance or specifically directed tasks. Incentive systems are mechanisms that offer rewards to the agent for acting in accordance with the principal's wishes, such as bonuses and increased pay (positive incentives) or fear of reprisals (negative incentives). The problem with policing and incentives is that they create costs for the principal; this creates a

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potential paradox in that it is only rational to implement policing and incentive mechanisms if the increased return to the principal's objective outweighs the cost of policing and incentives. Mitnick concluded by noting that he had created only a basic framework around which to further develop agency theory.

In 1976, Michael C. Jensen and William H. Meckling did just that with their seminal paper *Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure.* As part of a broader theory of the firm, this paper further explored agency costs and its sources. Like Mitnick, Jensen and Meckling identify monitoring the agent's actions as a source of agency cost, but they also identify at least two other sources: bonding costs borne by the agent (such as bonding against malfeasance, contractual limitations on his power, which limits his ability to take full advantage of profitable opportunities, foregoing certain nonpecuniary benefits, etc.), and the wealth loss borne by the principal when the agent's actions do not maximize his welfare (referred to as “residual loss”). While the previous agency theory literature had focused on how to structure incentives and the principal/agent relationship to maximize the principal's welfare, Jensen and Meckling presume the parties largely resolve these issues. Instead Jensen and Meckling “investigate the incentives faced by each of the parties and the elements entering into the determination of the equilibrium contractual form characterizing the relationship between the manager (i.e., agent) of the firm and the outside equity and debt holders (i.e., principals).”

To that end, they compared the management behaviors found in two different firm structures: one where the manager owns 100% of the firm versus when the manager sells an equity share to outsiders. In the former structure, the owner/manager will act to maximize the firm's welfare because the full benefit of this maximization will accrue to him. Maximization occurs when the marginal

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utility of each dollar expended is equal to the nonpecuniary benefits (such as office size and appointments, respect from staff, ability to choose and control staff, etc.) and the marginal utility of each after-tax dollar. However, when the owner/manager sells, say, a 20% equity stake to outside shareholder, agency costs will arise from the divergence of interests between the manager and the shareholders. For instance, since his wealth interest has been reduced to 80%, he will be inclined to expend resources such that one dollar spent equals the marginal utility of 80 cents of purchasing power—a reduction equal to his reduction in the share of the wealth. This cost can be mitigated, but probably not eliminated, by the shareholders incurring monitoring costs. As the manager's fractional ownership falls, his fractional outcome on ownership falls as does his incentive to seek out new profitable ventures; and his incentive to extract rents or perquisites rises, as do the monitoring costs to curb such tendencies. Jensen and Meckling conclude that these agency costs are inevitable when there is a separation of ownership and control, and that to call these costs “inefficiencies” is appropriate only if comparing to an “ideal world” where principal and agent interests could be aligned at zero cost.

Jensen and Eugene F. Fama further explored the separation of ownership and control in 1983, particularly in large, complex organizations. Central to their paper *Separation of Ownership and Control* is the theory of how decision processes are divided. Generally speaking, the decision process has four steps:

1) *initiation* of proposals of resource utilization and structuring of contracts
2) *ratification* (choosing which initiatives will be implemented)
3) *implementation* of ratified decisions
4) *monitoring* the performance of the decision agents and implementation of rewards

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Fama and Jensen hypothesize that because the decision managers in such organizations do not bear the major wealth effects of their decisions, an effective system “implies, almost by definition, that the control (ratification and monitoring) of decisions is to some extent separate from the management (initiation and implementation) of decisions.” The control decisions tend to be retained by those who bear the major risk, referred to as “residual claimants.”

Fama and Jensen test this hypothesis by examining the decision structures of four types of large, complex organizations: open corporations, large professional partnerships, financial mutuals, and nonprofits. In open corporations, common stockholders can exercise control by way board selection or ability to sell stock and thus affect the stock price. But shareholders have virtually no role in the day-to-day management of the corporation, which is instead carried out by the executives. Thus the nature of an open corporation provides near-perfect separation of control and management.

For partners in large professional organizations, their welfare as residual claimants depends on the actions of other residual claimants over which they have little direct control. For this reason, these professional organizations typically delegate ratification and monitoring decisions to an independent board. Additionally, the sharing of liability among fellow partners “ensures that large partnerships have strong versions of the mutual monitoring systems that [Fama and Jensen] contend are common to the decision control systems of complex organizations” with diffuse residual claims.

For financial mutuals, the residual claimants are customers (depositors, policyholders, mutual fund holders) who generally do not participate in the day-to-day management processes. The residual claimants exercise control by their ability to withdraw assets from the mutual at any time and deprive management of control over those assets. Mutuals also feature a board of directors, though their role is less important than that of an open corporation due to the inherent decision control of the redeemable residual claims.

For large nonprofit organizations, the capital is largely supplied by donors who lack the
control inherent in the ability to withdraw or alienate assets as in open corporations and financial
mutuals. Additionally, since donors do not expect a financial return on their investment, agency
problems between donors and management are substantially minimized. Nonetheless, donors
typically want some assurance that the management will not expropriate their donations for uses
other than as the donors intended. Like other complex organizations, nonprofits typically have a
board of directors whose primary function is to exercise decision control. Because nonprofit board
members are often substantial donors themselves, they stand in as the residual claimants with
decision control. This gives other current and potential donors some measure of comfort that the
board will take their decision control task seriously.

In 1990, Jensen and Kevin J. Murphy examined incentives behind CEO pay. The upshot of
their conclusions can be found in the title of their paper: CEO Incentives—It’s Not How Much You
Pay, But How.\(^9\) Jensen and Murphy gathered compensation data for 2,505 CEOs of 1,400 publicly
traded companies from 1974 through 1988 and for executives at over 700 companies from 1934
through 1938. They also collected stock ownership data for the CEOs of the 430 largest corporations
in 1988. After compiling and analyzing the data, they arrived at the following conclusions.

1. *Contrary to the prevailing belief at the time, executives are not receiving record salaries
   and bonuses.* From 1934 to 1938, the average annual CEO compensation (salary and
   bonus) was $882,000 in 1988 dollars versus $843,000 for the period between 1982 and

2. *Annual changes in executive pay do not reflect changes in corporate performance.* For
   the median CEO in the largest 250 companies, a $1,000 change in corporate value
   equated to a change of 6.7 cents in salary and bonus over two years.

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\(^9\) Jensen, Michael C. and Murphy, Kevin J., CEO Incentives: It's Not How Much You Pay, But How. Michael C.
Jensen, FOUNDATIONS OF ORGANIZATIONAL STRATEGY, Harvard University Press, 1998; Harvard
Business Review, No. 3, May-June 1990
3. *Compensation for CEOs is no more variable than compensation for hourly and salaried employees.* “A comparison of annual inflation-adjusted pay changes for CEOs from 1975 through 1988 and pay changes for 20,000 randomly selected hourly and salaried workers shows remarkably similar distributions. Moreover, a much lower percentage of CEOs took real pay cuts over this period than did production workers.”\(^{10}\)

4. *With respect to pay for performance, CEO compensation is getting worse rather than better.* As a percentage of total shares outstanding, CEO stock ownership was ten-times higher in the 1930s than in the 1980s.

While the general public was focused on the level of executive pay, Jensen and Murphy contended that the method of pay was inadequate to attract top talent and shape executive behavior to maximize shareholder value. The solution to this problem, according to Jensen and Murphy, is two-fold: 1) more aggressive pay-for-performance compensation methods, such as requiring a higher level of stock ownership among executives, and structuring bonuses and stock options to reward success and penalize failure; and 2) more dismissals of poorly performing executives—two studies of 500 CEOs over 20 years found only 20 cases where the CEO left office due to poor performance.

Where stock ownership is concerned, what matters is not the dollar value of the stock the CEO holds but the percentage outstanding stock he owns. The higher the percentage, the tighter the link between shareholder wealth and CEO wealth (and, presumably, the more aligned their interests will be).

Jensen and Murphy argue that cash compensation “should be structured to provide big

\(^{10}\) Jensen and Murphy, pp. 2-3.
rewards for outstanding performance and meaningful penalties for poor performance.\textsuperscript{11}\textsuperscript{11} The then 7-cent change in CEO pay for every $1,000 change in corporate value did not provide sufficient motivation to perform well or avoid performing poorly. The advantage of cash compensation is that it is not subject to the changes in corporate value caused by market movements that are beyond the CEO's control.\textsuperscript{12}\textsuperscript{12}

While Jensen and Murphy emphasize that direct stock ownership is the most important component of increasing pay for performance, they note that stock options “are an increasingly important component of executive compensation packages”\textsuperscript{13}\textsuperscript{13} because is tied directly to changes in shareholder value. The disadvantages to stock options compared to stock shares are that they do not reward dividends and the change in the value of options is roughly 60 cents on the dollar due to variables such as interest rates, dividends and whether the options are in or out of the money.

By 2003, Murphy had struck a more pessimistic chord on stock options. Murphy, with Brian J. Hall, wrote in \textit{The Trouble with Stock Options}\textsuperscript{14}\textsuperscript{14} that “too many options are granted to too many people.” From 1992 to 2002, the total value of options issued by S&P 500 companies had grown from $11 billion to $71 billion after falling from a high of $119 billion in 2000. The arguments in favor of stock options had been that 1) they give a greater incentive for executives to act in the shareholders' interests by linking executive compensation to stock price performance; 2) they attract highly motivated and entrepreneurial employees; 3) they allow

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11 Jensen and Murphy, p. 8. \\
12 It is worth noting that since Jensen and Murphy's paper was published, the Internal Revenue Code was amended to limit the deductibility of cash compensation to $1,000,000 each for the top 5 paid executives of publicly traded companies. This restriction may impinge on the flexibility of cash compensation envisioned by the authors at the time. \\
13 Jensen and Murphy, p. 24. \\
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employers to hire talent without a direct outlay of cash; and 4) they mitigate risk aversion by the executives by encouraging risk-taking. But the Enron, WorldCom, Global Crossing, and other corporate scandals have been linked to excessive risk-taking encouraged by stock options. Moreover, these scandals ignited new debate over the reporting requirements for stock options, which at the time were not required to be recorded as an expense unless the exercise price was below the fair-market price.\textsuperscript{15}

From 1992 to 2002, the value of stock option grants by S&P 500 companies increased from $22 million per company on average to $238 million. By 2000, the average CEO compensation had grown from $14.7 million from $3.5 million in 1992. Most of this increase was due to an escalation in stock options values from 1992 to 2000. But not all of the stock options flowed to executives. By 2000, nearly 10 million U.S. employees held stock options.

According to Hall and Murphy, this run-up in stock options was due to tax and accounting rules favoring the issuance of options. In 1994, the Internal Revenue Code was amended to limit the deductibility of cash compensation to $1 million each for the top five paid executives of publicly traded companies; however, performance-based compensation such as options were not subject to this limit. Also, prior to 2004, companies were only required to report the “intrinsic value” of stock options—and unless the exercise price is lower than its market price, the intrinsic value of a stock option is $0.\textsuperscript{16}

But are options efficient? Hall and Murphy argue the answer is no. First, most stock options are issued to non-executive employees, so much of the expense of issuing options does not serve the purpose of aligning executive and shareholder interests. Second, the cost to the firm

\textsuperscript{15} Since the publication of Hall and Murphy's paper, the Financial Accounting Standards Board issued Financial Accounting Standard 123R, which required publicly traded companies to report stock options as an expense on their financial statements.
\textsuperscript{16} See note 15.
of issuing stock options is greater than the value received by the recipient employees. The cost of options is the amount an outside investor would pay for, assuming the same forfeiture risk and vesting schedule. On the open market, this risk would be offset by a discount, but the recipient employees are not afforded the presumption of a discounted value. Also, “for reasonable assumptions about risk aversion and diversification, we find that employees value options that have just been granted with an exercise price equal to the market price at only about half of their cost to the firm. This value-to-cost ratio is substantially smaller if the options have an exercise price that is above the existing market price, or if the exercise prices increases over time, or if the option has a long vesting period.” Furthermore, stock options are a way of borrowing services from employees for the prospect of future payouts, and risk-averse employees are not an efficient source of capital. Additionally, since rank-and-file employees are not willing to pay close to full price for their options, broad-based options are not an efficient talent-recruitment method because they are not an attractive substitute for cash. And stock options are not always an efficient method of retention. This is particularly true during bear markets when options are more likely to be underwater and the lure of being issued “fresh” options by competing employers is stronger. And finally, stock options are an inefficient motivator for most employees because only a nominal portion of any increase in the value of the firm will flow through their options holdings.

As a way of compensating top executives, Hall and Murphy prefer restricted stock to options because options lose much of their incentive value if the market value falls sufficiently below the exercise price, while restricted stock retains a higher incentive value because it will nearly always be worth “something.” Also, an executive has an incentive to engage in riskier

17 Hall and Murphy, p. 10.
behavior if he holds options that are underwater than will an executive holding restricted stock that still has present value. Executives with restricted stocks have a greater incentive to pursue what Hall and Murphy call “appropriate dividend policy” because restricted stock can pay dividends while options cannot.