Discussion of "Explicit Relative Performance Evaluation in Performance-Vested Equity Grants"

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Abstract Carter, Ittner, and Zechman (2009) examine the use of explicit relative performance evaluation (RPE) conditions in performance-vested equity plans in a sample of United Kingdom (U.K.) firms in 2002. They find that factors suggested by economic theories (for example, removal of common shocks, tournament theory) are more closely associated with specific features of the plan than with the firm-level decision to use an RPE equity plan. My discussion focuses on the interpretation of these findings and the opportunities and implications for future research. I also summarize the views of five U.K. directors who were involved in the design and use of performance-vested equity plans.

Keywords Relative performance evaluation, performance-based vesting conditions, equity plans, executive pay

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Carter, Ittner, and Zechman (2009), hereinafter "Carter et al.", analyze the use of performance-vested (PV) equity plans in the United Kingdom, with an emphasis on plans employing relative performance evaluation (RPE) conditions as vesting criteria (for example, vesting conditions linked to the performance of an industry index). The paucity of data on the explicit use of RPE in U.S. firms has forced researchers to infer the use of RPE with methodologies subject to significant measurement error. Carter et al. exploits a unique feature of the United Kingdom—the widespread adoption of PV equity plans, including plans with explicit RPE-based vesting criteria—to revisit a number of questions in the RPE literature. In the process, they also provide rich exploratory evidence on the characteristics of PV equity plans, which are becoming increasingly popular in the United States (Gerakos, Ittner, and Larcker, 2007), partly in response to pressure from shareholder activists (Ertimur, Ferri, and Muslu, 2009).

The discussion proceeds as follows. First, I examine the two main questions addressed by Carter et al., namely, the choice between RPE and non-RPE equity plans (Section 1) and the choice among specific features of RPE equity plans (Section 2). In doing so, I mostly focus on the interpretation of the findings and alternative ways to think about these choices. Then, I suggest opportunities for future research (Section 3), followed by concluding remarks (Section 4). Throughout the discussion, I report a few insights from phone interviews with five U.K. executives and directors, who kindly accepted to discuss the issues raised in the study.[1]

[1] Three of these individuals sit on the boards of U.K. firms as outside directors. One worked as an executive for a U.K. firm employing an RPE equity plan and is a director of a U.S. firm. One is the head of remuneration practices at a U.K. firm employing an RPE equity plan. The firms represented are mid-size and large firms, with significant international operations, and a large base of institutional shareholders. The industries represented are banking, energy, consumer goods, and technology. The respondents were asked to provide their views in relation to their personal experience at their own firms as well as their perceptions based on experiences of colleagues in other firms.

1. The choice between RPE and non-RPE performance-vested equity plans

For years, researchers have been left to speculate as to whether the limited evidence of use of RPE reflected measurement issues or limitations in RPE-based theories. Carter et al. have both good and bad news regarding this key question. The good news is that firms do use RPE. More than 40% of the U.K. firms in Carter et al.'s sample employ an RPE equity plan. The bad news is that even in this powerful setting, where explicit use of RPE is observable, there is little evidence that factors identified by RPE theories (for example, the need to remove common shocks) play any role in the decision to use RPE. More generally, Carter et al.'s Table 5 suggests that few variables explain the choice between RPE and non-RPE equity plans, that is, plans with vesting criteria based on absolute, rather than relative, performance targets. This may be due to measurement and econometric issues, or reflect limitations of RPE-related theories—problems that have been discussed extensively in the literature. I instead focus my discussion on what RPE and non-RPE equity plans really capture.

1.1 Is the choice really between RPE and non-RPE plans?

The descriptive statistics about the features of RPE and non-RPE plans (Table 2, Panels D and E in Carter et al.) reveal two important empirical regularities. First, vesting conditions are based on total shareholder returns (TSR) in virtually all the RPE plans, while they are based on earnings per share (EPS) targets in virtually all the non-RPE plans. Second, non-RPE plans are dominated by the use of stock options (85% vs. 15%), while RPE plans are tilted in favor of restricted stock over stock options (57% vs. 43%)—a trend that has accelerated after 2002, according to the U.K. directors I interviewed. In other words, it appears that two combinations have emerged in the United Kingdom as best practices: 1) TSR-, RPE-based vesting conditions for restricted stock;

and 2) EPS-, non-RPE-based vesting conditions for stock options. This evidence raises the following question: is the choice between RPE and non-RPE plans (as assumed by Carter et al.), between different performance measures, between different types of equity awards, or between the two combinations I described? The answer to this question has important implications in terms of research design choices and interpretation of the results.

1.2 What about the use of explicit RPE in the rest of the compensation package?

Cash pay represents about two thirds of total pay for top executives in the United Kingdom in 2002. Thus, ignoring the use of explicit RPE (if any) in cash pay may distort the analysis.[2] In practice, this is unlikely to be a problem. The authors find no mention of explicit RPE in bonus plans in a sample of 25 firms (whether or not using RPE or non-RPE equity plans).[3] The U.K. directors interviewed confirmed that the use explicit RPE in cash compensation plans is quite rare. A more serious concern is the extent to which the firms analyzed in the study use *implicit* RPE in other elements of their pay packages. I turn to this point next.

1.3 Should we rephrase the problem as a choice between explicit and implicit use of RPE?

The U.K. directors interviewed seem to agree on one thing. They all claim to implicitly or explicitly use RPE in the design of executive pay, where RPE means "taking into account the broader context." Whether it's the size of the equity grant, discretionary bonuses, salary increases, or the choice of targets for bonus pay, they all claim to somehow take into account realized and expected performance of their peers, as well as sector and market trends, and any

[2] For example, the lack of significance of RPE-related factors in Table 5 may be due to the fact that firms with non-RPE equity plans use more (explicit) RPE for cash pay than firms using RPE equity plans.

[3] It seems unlikely that these firms use explicit RPE without disclosing it, since it would help them gain support from institutional investors.

developments in factors "outside management's control" relevant to their industry (for example, political risk, environmental laws, etc.). Those opposing the use of explicit RPE in equity plans essentially argue against the use of RPE-based "hard targets," citing difficulty in the implementation of RPE (for example, identifying truly comparable firms) and the excessive rigidity associated with a formulaic plan, rather than against the objectives of RPE (for example, removing common shocks).

This observation has two implications. First, the RPE-related factors in Table 5 may not play a significant role because firms with non-RPE equity plans make greater use of implicit RPE in other elements of pay (bonus, size of equity awards, salary increases). Future studies could test this hypothesis by examining whether the degree of implicit RPE in cash pay (as inferred through a regression of executive pay on industry and firm performance) differs among firms using RPE equity plans and non-RPE plans. A second and, in my view, more important implication is that perhaps the "RPE vs non-RPE" research question should be rephrased as why some firms choose to use *explicit* RPE plans in spite of their design challenges and lower flexibility rather more subjective and flexible implicit RPE plans. Explicit use of RPE does not necessarily (or only) imply more RPE. This different perspective would lead researchers to identify a broader set of determinants capturing costs and benefits associated with publicly pre-committing to a formulaic RPE plan. Given the well-known challenges in inferring the degree of "RPE-ness" and identifying variables that capture RPE constructs,[4] maybe a focus on explicit vs. implicit RPE is a more fruitful avenue of research.

[4] The number of variables that can equivalently be used to proxy for constructs predicted to be positively associated with the need for RPE and constructs predicted to be negatively associated with the need for RPE is remarkable. See for example footnotes 13 and 14 in Carter et al.

1.4 Does the sample period capture "equilibrium" behavior?

Another potential reason for the difficulty in explaining the choice between RPE and non-RPE plans is that remuneration practices of U.K. firms in 2002 were in flux. The use of PV equity plans began to (slowly) increase only after the release of the Greenbury Report in 1995. In 2002 most firms were probably still experimenting with the effects of these plans. Besides, in 2002 the United Kingdom passed legislation (known as "say on pay") mandating an advisory shareholder vote on the remuneration report. The legislation was introduced in response to concerns with the optimality of executive pay packages and gave dissatisfied shareholders a vehicle to request changes in remuneration practices, including equity plans. For example, in 2003 GlaxoSmithKline, after a strong voting opposition to its remuneration report, was pressured to use a global industry peer group, rather than a market index, as comparator group in its RPE equity plan, among other things (Ferri and Maber, 2008). Hence, it is possible that institutional investors had greater power to impose their preferences for RPE equity plans after 2002. The U.K. executives and directors interviewed suggest that the fraction of firms using RPE equity plans and certain features (use of peer groups rather than indices, for example) has increased since 2002. Perhaps testing theories that assume some sort of equilibrium behavior with 2002 data may have reduced the power of the tests in Carter et al. Using a more recent dataset or focusing on first-time adoptions of RPE equity plans may yield different results.

2. The choice of specific features of RPE performance-vested equity plans

Most of the Carter et al. study is devoted to the choice of a number of features of RPE equity plans, such as the use of performance hurdles rather than payout ranges for vesting, the minimum percentile ranking required for vesting to begin, the choice of the comparator groups (self-selected peer groups vs. industry/market index) and so on. The authors deserve much credit for

hand-collecting detailed data about these features, organizing them in a systematic way and providing a number of insights into their determinants, in spite of the limited theories available and the complex econometric issues raised by the joint nature of these choices.

This part of the paper perhaps suffers a bit from the original motivation of the study—testing RPE theories. Even though most of these features analyzed belong to non-RPE plans as well, Carter et al. only analyze RPE equity plans and focus on the same determinants used to explain the choice between RPE and non-RPE equity plans.[5] In my view, only one of the features analyzed—the choice of the comparator group for RPE purposes—is a natural candidate for examining the role of RPE-type factors. For the other features, the link to RPE theories is not obvious and the empirical findings require caution. For example, consider the positive association between their proxy for the need to remove common shocks (COMMONRISK) and the choice to use a single performance hurdle (100% vesting upon achievement of the target) rather than a payout range (graded vesting depending upon performance). Carter et al. interpret this result as consistent with firms using performance hurdles to remove common shocks. I suggest caution for a couple of reasons. First, performance hurdles are used in 67% of the non-RPE plans but only 23% of the RPE plans, where supposedly the need to remove common shocks should be higher. It seems odd that performance hurdles are used to remove common shocks in RPE equity plans but are much more frequent in non-RPE equity plans. Second, there is no conceptual reason why *any* performance hurdle should be more effective at removing common shocks than the use of a payout range. It seems that Carter et al. refer to a *specific*

[5] Carter et al. call Section 4.2 of their study "RPE Characteristics," even though the characteristics analyzed are not unique to RPE plans.

performance hurdle (the median of the comparator group, which is the most common performance hurdle in their sample).[6]

This portion of the paper would have likely benefited from examining the choice of features of both RPE *and* non-RPE equity plans and moving beyond the set of RPE-related variables. At the minimum, non-RPE equity plans would have provided a useful control sample. For example, if the association between the use of performance hurdles and the need to remove common shocks only occurred in RPE plans, the reader would feel more comfortable with Carter et al.'s RPE-based interpretation of the result.

3. Opportunities and implications for future research

The evidence documented by Carter et al. creates a number of opportunities for future analytical, empirical, and field-based research.

3.1 How do firms choose among these plans?

The most intriguing evidence in Carter et al., in my view, is the emergence of two models of performance-vested equity plans (as described earlier in Section 1.1): 1) TSR-, RPE-based vesting conditions for restricted stock; and 2) EPS-, absolute target-based vesting conditions for stock options. This evidence raises two questions. First, why have these emerged as dominant combinations? Why is EPS the preferred performance measure for the vesting of stock options? What makes RPE conditions better suited to restricted stock? Analytical work may shed light on these issues. Perhaps the answer also lies in institutional developments in the United Kingdom, requiring more field work on the origins and development of these practices. The second question is how firms choose between these combinations. For example, do firms choose

[6] It should also be noted that the association between COMMONRISK (the proxy for the need to remove common shocks) and the features analyzed by Carter et al. does not hold in certain robustness tests.

between restricted stock and stock options first, with that choice dictating the other two choices (performance measure and relative vs. absolute targets)? Or is the main choice boards face the one between relative or absolute performance targets? Interviews with executives and field work are likely to be of great help on this. One of the directors interviewed, for example, tells me that she strongly favors the use of EPS-based targets over TSR-based targets because of greater controllability and that EPS may not lend itself to RPE as well as TSR, due to the discretion in firms' reporting choices. In a related vein, another director notes that, if the firm chooses to link vesting to strategic nonfinancial metrics (for example, penetration in certain markets) RPE is not an option, since peers' data on these metrics would not be available. Two directors seem to emphasize the choice between restricted stock and stock options, and one of them argues that, once you choose to use restricted stock, RPE-based vesting conditions are almost necessary to prevent excessive, undeserved payoffs after stock price declines. There seems to be room for more research on these issues.

3.2 The consequences of RPE and non-RPE equity plans and their features

Perhaps the most natural follow-up to Carter et al. is an analysis of the consequences of the adoption of RPE and non-RPE equity plans. The value effect of these plans and their features may be analyzed both in terms of long-term firm performance and in terms of market reaction to the adoption (or significant amendment) of these plans. It is also important to study their incentive and retention effects (Bettis, Bizjak, Coles, and Kalpathy, 2008; Kuang and Qin, 2007).

3.3 Implication for other areas of research

The increasing use of performance-based vesting conditions in the United States (Gerakos et al., 2007; Bettis et al., 2008) will require earnings management and disclosure

studies to incorporate these additional targets in their analyses. In a sample of U.K. firms, Kuang (2008) finds that managers are more likely to engage in earnings management when they hold a larger proportion of their compensation in performance-vested stock options and studies the relation between earnings management and specific vesting targets.

Carter et al. show that a significant fraction of performance-vested equity grants does not vest or vests partially. This implies that studies using Black-Scholes value estimates for performance-vested option grants are over-stating their true value (by about 15-20%, according to Lee, Stathopoulos, and Vonatsos, 2007). As performance conditions become more popular in equity grants in the United States, hopefully option pricing models will be refined to provide empiricists with appropriate proxies.

4. Conclusions

Carter et al. provide an important contribution to the literature on executive pay, by providing detailed exploratory evidence on the use of performance vested-equity grants in the United Kingdom, with special emphasis on the use of relative performance evaluation. The study provides a number of interesting insights and is likely to stimulate further research on a topic of great relevance to academics and practitioners alike.

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