Growth-promoting Bonuses and Mergers and Acquisitions

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Abstract

One-third of U.S. top executives have bonus incentives that are explicitly tied to the firm's size. We study how such "growth-promoting bonuses" influence firms' mergers and acquisitions (M&A) activities. We find that firms with bonus structures that promote growth are more prone to make acquisitions—especially acquisitions of a scale that help meet the bonus size target. We use shocks to sales from plausibly exogenous exchange-rate changes for exporting firms to identify these effects. Acquisitions by firms with growth-promoting bonuses have significantly lower abnormal returns, destroying value for the acquirers on average. These lower acquirer returns can be attributed to the selection of targets with lower synergies and, to a lesser extent, higher premiums paid. The growth-promoting bonuses tend to be sufficiently large such that—despite negative acquirer returns—the net monetary effect for executives who meet their sales bonus targets with a merger remains significantly positive.

JEL Classification: G32, G35, J23

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Introduction

"Show me the incentive and I will show you the outcome."

Charlie Munger

Mergers and acquisitions (M&A) regularly destroy value for the acquiring firms (Moeller et al. 2004, 2005).[1] A common explanation for why firms so often engage in value-destroying acquisitions is related to agency problems, and in particular, executives' incentives to "empire-build" (Harford et al. 2012; Masulis et al. 2007; Morck et al. 1990; Williamson 1963). The idea is that an acquisition can be in an executive's personal interest because they get to run a bigger firm—with higher prestige, future pay raises, or prerequisites (Yermack 2006)—even if shareholders do not gain anything from the merger. In the empire-building literature, these kinds of benefits that can accrue to an executive from acquisitions and running a bigger firm tend to be indirect and not specified in advance. This paper builds on this literature by studying a unique role of *direct* ex-ante monetary incentives to grow the firm, which we refer to as "growth-promoting bonuses" (henceforth, GPBs).

We define GPBs as compensation contracts that, in a direct ex-ante way, tie managers' incentive payouts to measures of firm size. These incentive payouts can be in the form of stock ("performance-based stock") or cash ("non-equity incentives"), and the most common performance measure that these incentives are based on is sales. A potential consequence when firms have such a bonus structure is that executives know they can acquire another company to meet the bonus target and receive the bonus even if the firm's internal growth is insufficient. Executives can also know how large a deal needs to be to meet the bonus target and how much money they will earn from hitting it. Bonuses that executives can earn this way thus provide an explicit link between doing an M&A deal and individual monetary incentives, compared with the more indirect benefits from general empire-building concerns. While companies could, at least in principle, exclude "inorganic" growth via M&A when calculating whether an executive has met the bonus target, few firms do so in practice (fewer than 3% of the GPB contracts we identify).

Growth-promoting bonuses are common: We document that over one-third of firms in the U.S. have them at any given point. However, despite the wide use of these incentives and the direct link to growing firm size, the role of these monetary incentives in influencing M&A activity has not—to the best of our knowledge—previously been analyzed.[2]

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[1]See also, for example, *The Financial Times* (July 20, 2022) "Mergers destroy value. Without reform, nothing will change"; *The Economist* (August 24, 2022) "Firms' unwise addiction to mergers and acquisitions."

[2]By comparison, several papers, including Anderson et al. (2004); Avery et al. (1998); Bliss and Rosen (2001); Harford and Li (2007) and Ozkan (2012) examine the relationship between the more implicit growth-promoting incentives that arise from the size-elasticity of executive pay, with mixed evidence.

We establish two overarching results regarding firms' use of GPBs and acquisition activities. First, we show that companies are more likely to make acquisitions when executives have growth-promoting bonuses. Second, these acquisitions are more likely to be value-destroying for the acquiring company's shareholders—a finding we identify is a consequence of selecting targets with worse synergies. We show that the mechanism through which these incentives affect merger activity is likely to be causal by exploiting plausibly exogenous shocks to a firm's sales from changes to the U.S. dollar's strength relative to other currencies. Such exchange-rate-based shocks—when the dollar suddenly becomes weaker—make it easier for exporting firms to meet their pre-determined bonus targets based on sales, thus weakening the incentive to use acquisitions to meet the target (but only for the exporting firms with GPBs). Also consistent with a causal mechanism, we show that the "extra" acquisitions tend to be of a size that helps executives meet the target and are often the difference between just meeting versus just missing the size target.

AbbVie's acquisition of Pharmacyclics in 2015 is an illustrative anecdote (see Appendix A for additional details). AbbVie's CEO had a compensation package at the time that included a bonus tied to sales that was worth $1.8 million, fitting our definition of a GPB. AbbVie only just ended up meeting this sales target, triggering the payment of the GPB to the CEO, but would have failed to do so without the acquisition of Pharmacyclics, which added a non-trivial amount to its sales figure for the year. Notably, AbbVie's stock price decreased significantly, by around 4%, upon the announcement of the acquisition.[3]

Our sample consists of firms from Incentive Lab—which covers about 1,200 of the largest firms by market capitalization listed on U.S. exchanges—from 2007 to 2017. Growth-promoting bonuses are part of the broader category of "non-equity incentive" and performance-based stock compensation plans that tie bonus payouts (in cash and stock, respectively) to whether the firm meets quantitative performance metrics such as earnings per share or other operating metrics.[4] Non-equity incentive plans constitute a significant part of executive compensation, accounting for roughly 20% of total CEO compensation in recent years (De Angelis and Grinstein 2015; Martin et al. 2017). Incentive Lab includes data on these bonus grants, the metrics they are tied to, and the threshold and target levels at which bonuses are paid. Data on mergers and acquisitions is from SDC. Among firms that can be linked to Incentive Lab, there are a total of about 5,000 acquisitions. 27% of these acquisitions involve targets that are either publicly listed or subsidiaries of publicly listed firms.

We define a bonus grant as being "growth promoting" if it is tied to a quantifiable measure

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[3]Jonathan D. Rockoff and Peter Loftus, "AbbVie to Buy Pharmacyclics in $21 Billion Deal", *The Wall Street Journal*, March 5, 2015, retrieved from `https://www.wsj.com`

[4]De Angelis and Grinstein (2015) show that firms use a relatively wide array of accounting measures in these bonus contracts.

of firm size. The vast majority (96%) of the grants we identify are tied to the metric of sales or sales growth, with the remainder being tied to either market share, production, or bookings. At the individual grant level (an executive can have several grants at any given time, and a grant can involve multiple metrics), 21% of all grants meet our definition of GPBs. After aggregating across all top-5 executives in a firm and their grants, we find that over one-third of firms have outstanding GPB grants at any given time, and 65% of firms in our sample have had a GPB at some point during our sample period. These incentives are economically important to the executives in many firms: the average value of the bonuses underlying GPBs (across the top-5 executives in the firm) is $3.24 million.

Our first hypothesis is that executives who have GPBs are more likely to acquire other firms. Consistent with this hypothesis, we find that firms where a larger fraction of the top executives have GPBs, and firms with more bonus dollars tied to size metrics, are significantly more likely to do acquisitions. In economic terms, a one-standard-deviation in either the fraction of top executives with GPBs or the total value of GPBs is associated with a 25% increase in the likelihood of announcing an acquisition. This result is consistent with an explanation that executives with GPBs game the incentive system and use acquisitions to meet their bonus targets.

A possible alternative explanation as to why firms with GPBs do more acquisitions is that the boards of such firms seek growth, and executives are merely responding to what the board desires, and would have done so even without contracts that explicitly reward growth. We present several findings suggesting that this alternative is unlikely to explain the positive association between GPBs and acquisitions. First, if a board desires growth and there are no agency problems, we might expect to see more acquisitions in general. However, if these deals are motivated by a desire to meet the size target, we should see more deals, particularly of the size that is "just enough" to achieve the target. We find that GPBs are primarily associated with more acquisitions of relatively "smaller" target firms that are around 1%–2% of the acquirer's size. Such deals can make an important difference since GPBs usually involve percentage growth targets in the middle-single-digits. In contrast, we do not observe a higher likelihood of relatively larger deals, e.g., deals that are around 5% (relative to the acquirer's size) or larger. Second, we find that the relationship between GPBs and the likelihood of announcing an acquisition is more pronounced in firms with poorer governance (proxied by CEO-Chair duality) and firms with larger cash holdings, suggesting agency problems are likely to be at play. Third, when we compare firms that have GPBs and firms that do not have GPBs, we find that after matching on the same industry and year, these groups of firms are very similar across a wide range of observable characteristics, including governance metrics.[5]

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[5]If we do not match on the industry, there are somewhat larger differences between the GPB and non-GPB

These analyses also help alleviate the concern that an omitted third variable could spuriously affect the relation between GPBs and merger activity.

We next use shocks to firms' sales from large exchange rate movements to further support the specific causal mechanism of firms using mergers to meet the bonus targets. The idea behind this test is the following: Suppose an American firm is exporting to the Euro area, and the strength of the U.S. dollar suddenly falls relative to the euro's value during the year. Thus, each euro the firm earns from its sales will translate into more dollars, and the firm receives a "windfall" of sales as measured in dollars. Because the sales targets for GPB contracts are also set in dollars, this makes it easier to meet the bonus target. If the causal mechanism behind the relation between GPBs and merger activity is that executives use mergers to beat the target/threshold for the bonus, we expect that exporting firms with GPBs (which normally do more mergers) would be less likely to do mergers when the USD is weak (but that we should not see this among non-exporting firms).

Exploiting a triple-difference analysis around shocks to the USD strength, we find evidence consistent with the proposed causal mechanism. Specifically, firms with GPB make significantly fewer acquisitions in years when the U.S. dollar has fallen significantly, but this relation holds only for exporting firms. These findings are thus inconsistent with an alternative omitted variables explanation as it is difficult to imagine a mechanism by which such omitted variables would also vary with the relative strength of the U.S. dollar compared to other global currencies (and do so selectively only for exporting firms with GPBs). It is important to note that the strength of the U.S. dollar could be related to aggregate economic conditions; we thus control for such a possible aggregate effect using time fixed effects, and thus only exploit variation in the cross-sectional differences in how firms that are both exporters *and* have growth-promoting bonuses differentially change their behavior in response to such exchange-rate shocks.

Given existing evidence suggesting that many executive bonus plans have design flaws that incentivize executives to destroy rather than create value for their shareholders (Murphy and Jensen 2011), we next turn to analyzing how acquisitions by executives with GPBs impact their shareholders. We hypothesize that—if many of these acquisitions result from agency problems whereby executives game the incentive system to make acquisitions that the board did not intend—such acquisitions will have adverse value implications for shareholders.

Our results show that growth-promoting bonuses are strongly associated with lower acquirer returns around acquisition announcements—almost a full percentage point lower. Given that the full-sample average acquirer returns are only slightly positive (0.3%), acquisitions by firms with GPBs thus destroy value for the acquiring shareholders on average (the average acquisition announcement returns of firms with GPBs is -0.21% versus 0.64% for firms without

firms; however, all our regressions control for possible industry and year confounders through fixed effects.

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GPBs). Notably, this happens despite the fact that GPBs are associated with an increase in the kinds of acquisitions that other studies suggest are more likely to create value for firms — acquisitions of smaller targets, cash acquisitions, and within-industry acquisitions (e.g. Fich et al. 2018; Harford et al. 2012; Morck et al. 1990). These results broadly support the view that managers with GPBs undertake value-destroying acquisitions, which are detrimental to shareholders but help meet the executives' sales-related bonus targets. Moreover, it is hard to reconcile these results with the alternative possibility that boards intend for such firms to make these acquisitions and encourage their executives to do so by awarding them more GPBs.

We next investigate the source of the lower bidder announcement returns: whether this happens because the acquirer is more likely to overpay for the target or because the deals selected tend to have lower synergies. To measure possible overpayment, we examine target premia and returns, and to study synergies, we measure the combined announcement returns of the bidder and target. On the one hand, we find directionally consistent but statistically weak evidence that GPBs are associated with higher target premiums and target announcement returns, suggesting that the GPB-motivated acquirers are not hugely overpaying for the targets (at least compared with M&A deals in general). On the other hand, we find that GPBs are associated with significantly lower *combined* bidder and target announcement returns. These results suggest that the mechanism through which GPBs are associated with lower returns for acquirers is primarily the selection of low-synergy acquisition targets and, to a lesser extent, overpayment.

To illustrate how these acquisitions contribute to meeting the payout thresholds for GPBs, we next study the likelihood that a firm—that otherwise (without making an acquisition) would have missed their threshold—instead ends up meeting the threshold with an acquisition. To simplify this analysis, we exclusively focus on GPBs tied to the sales metric, which is by far the most common metric for GPBs. Specifically, we compare the realized sales of acquiring firms with GPBs—sales at the first fiscal year end following the completion of the acquisition— to a "counterfactual" estimate of what the acquiring firm's sales would have been without the acquisition. To compute the counterfactual sales, we subtract the target's sales from the acquirer's sales, weighting the target sales by the portion of the fiscal year remaining following the completion of the acquisition. Since many targets are private and their sales are unknown, we estimate the target's sales by dividing the transaction value by the median enterprise-value-to-EBITDA ratio of the target firm's 2-digit SIC industry.[6] This analysis shows that 30% of firms whose counterfactual sales would have missed the threshold by 5% or less actually exceed the threshold following the acquisition—i.e., these firms would have missed the threshold if it

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[6]Our results are similar if we instead focus only on public firms and estimate the target's sales using the actual sales reported at the last fiscal year-end prior to the acquisition's completion.

was not for the acquisition.

Finally, we quantify the financial rewards for executives from making acquisitions that help them meet the performance goals in their GPB contracts. Using details of each GPB contract, the post-acquisition sales, and our estimated post-acquisition counterfactual sales (what sales would have been absent an acquisition), we estimate that the average executive with a GPB gains an additional $211,747 in bonus compensation as a result of making an acquisition. This figure translates to a 22.1% and 3.9% increase in bonus pay and total compensation, respectively, on average. These gains far outweigh the average losses to executives' equity portfolios that result from the fact that the acquisitions by GPB-motivated firms tend to be value-destroying: we estimate those losses to be $17,8237 on average. Overall, these estimates suggest that it is likely that executives with GPBs have significant monetary incentives to use acquisitions to meet the GPB performance goals.[7]

Our paper builds on the literature that studies value-destroying acquisitions (Harford 1999; Harford et al. 2012; Jensen 1986, 1993; Moeller et al. 2005). Previous studies examining the drivers and determinants of value-destroying acquisitions point to antitakeover provisions (Masulis et al. 2007), shareholder investment horizons (Gaspar et al. 2005), hedge fund activism (Gantchev et al. 2020), director gender (Levi et al. 2014), stock liquidity (Chatterjee et al. 2021), and operating performance (Baker et al. 2012). We contribute to this literature by showing that the design of ex-ante bonus plans can contribute to value-destroying acquisitions.

Our paper also contributes to the literature that studies the role of managerial incentives more generally around acquisitions. For instance, equity-based compensation and pay-for-performance sensitivity are associated with value-enhancing acquisitions (Datta et al. 2001; Minnick et al. 2011). Other characteristics of compensation, such as pay-risk sensitivity (Hagendorff and Vallascas 2011), inside debt (Phan 2014), and duration (Li and Peng 2021) have also been shown to be associated with acquisition performance. Anderson et al. (e.g. 2004); Avery et al. (e.g. 1998); Bliss and Rosen (e.g. 2001); Harford and Li (e.g. 2007); Ozkan (e.g. 2012) analyze the role of implicit empire-building incentives for mergers.[8] Our paper offers new insights into this literature by focusing on compensation incentives explicitly linked to firm size and reward growth.

Our paper is also related to Grinstein and Hribar (2004) who study discretionary bonus payments awarded following the completion of acquisitions, i.e., *ex-post*. In contrast, the GPB

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[7]In addition to the explicit monetary incentive associated with growth-promoting bonuses, executives also have a "career concern" incentive to meet the growth target in their bonus plans because they face an increased risk of turnover if they fail to meet the targets under these plans (Bennett et al. 2017). For the 260 executives in our sample (10% of our sample) who would not have met their bonus threshold absent an acquisition, we estimate an expected loss in income of $307,558 from forced turnover had they not made an acquisition.

[8]See also Williams et al. (2008) for a survey.

grants we study are awarded *ex-ante*. Even though Grinstein and Hribar (2004) find that such bonuses are more likely to be paid to more powerful CEOs, they do not find that such grants are related to deal performance. Moreover, such bonuses are also predominantly associated with large deals, whereas GPBs, in addition to being used far more frequently, appear to impact smaller deals. Our paper also complements the studies of Dasgupta et al. (2019) and Aboody et al. (2000), who show that compensation tied to earnings per share (EPS) impacts the structure of M&A deals.

Finally, our paper is broadly related to papers that study the impact of bonuses tied to EPS metrics on corporate outcomes such as share buybacks (Cheng et al. 2015), as well as accruals, discretionary spending, and R&D (Bennett et al. 2017). We expand this literature by focusing on a second metric that is very common in these bonus contracts, namely sales and related size-based measures. In this context, our findings speak to the issue of multi-tasking in a principal-agent setting (Holmstrom and Milgrom 1991) in that they are consistent with the idea that incentive pay can lead to an agent sacrificing some dimensions of their task (e.g., shareholder value) to achieve a more narrowly defined goal (e.g., growth) that is explicitly specified in their contract.

2 Data and Sample

We obtain data from ISS Incentive Lab that identifies metrics used in executive compensation bonus contracts for the five highest-paid executives. While the word "bonus" is typically used to describe discretionary cash bonuses—which have become quite rare for publicly listed companies—we use the word bonus here in a more general sense when referring to payouts of stock or cash that are linked to meeting a specific quantitative target. That is, as part of these bonuses, we consider both "performance-based stock" when the payout is in the form of shares, or "non-equity incentives" when the payout is in the form of cash.

Our data spans the years between 2007 and 2017, and during this period, Incentive Lab covers around 1,200 of the largest firms by market capitalization listed on U.S. exchanges each year. We match the Incentive Lab data to Compustat and CRSP.

We next obtain data on M&A transactions from SDC announced between 2007 and early 2017, with a status of either completed or withdrawn, and for which the acquirer is U.S.-domiciled and either a publicly-listed firm or a subsidiary of a publicly-listed firm. We match acquirers to Compustat using a list provided by Ewens et al. (2019) (on Ewens' Github page). We use data from CRSP to compute abnormal returns around the transaction announcement date as specified in SDC.

Finally, we merge firms in our panel from Incentive Lab to the firms in the M&A data, to identify firm-years in which there is an acquisition announcement.

2.1 Summary statistics

We start by reporting summary statistics for the grant-level data from Incentive Lab in Table 1. Panel A shows that our data consists of a total of 159,178 bonus grants in Incentive Lab across 1,403 unique firms. Of these bonus grants, 33,837 (21% of the total) are specifically tied to quantifiable measures of firm size, i.e. our definition of growth-promoting bonuses (GPB). 909 (65%) of the unique firms in the sample have at some point had a GPB, indicating that a majority of these largest firms at least occasionally employ bonus grants that hinges specifically on firm size.

It is important to note that 2.5% of awards that are tied to a firm size measure (e.g., sales) specify that the growth must be "organic," effectively prohibiting the use of acquisitions to meet the performance goal.[9] We exclude such grants from our classification of GPBs.[10]

TABLE 1 ABOUT HERE

Panel B of Table 1 details which specific measures of firm size that these grants depend on. By far the most common is sales (96.1% of grants). Around one quarter of these are specifed in relative terms (i.e., as percent growth in sales), and the remaining are expressed as absolute sales targets. The other and less commonly used metrics include market share (1.7%), production (0.9%), and bookings (0.7%).[11]

We next construct a panel dataset for the fims within Incentive Lab, where we collapse the grant level data to the firm-year level, resulting in a sample of 15,863 firm-years. Table 2 reports summary statistics at the firm-year level.

TABLE 2 ABOUT HERE

Panel A of Table 2 summarizes the extent of growth-promoting bonuses. This data shows that the average fraction of a firm's top 5 executives with outstanding GPB grants is 34%.

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[9]Our estimate of 2.5% is roughly consistent with (Cheng et al. 2015) who study the impact of bonuses tied to performance metrics (EPS) on corporate share buybacks. They report that in 0.5% of their sample, boards adjust for the impact of repurchases when determining whether the EPS goal had been achieved.

[10]Another 0.1% of the observations explicitly prohibit using acquisitions as a means to achieve the performance goal. We exclude such grants as well.

[11]Note that these percentages add up to slightly more than 100%, because some grants depend on more than one of these metrics.

These are about equally prevalent for CEOs (33%) and CFOs (32%). These potential bonuses are also sizable in economic magnitude, which means that executives have a strong incentive to meet them. The mean total value of GPB grants outstanding per year is about $1.3 million, with about $553,000 for CEOs and $150,000 for CFOs. Among firm-years with non-zero outstanding GPB grant values, these values are correspondingly higher; the amount of bonuses that explicitly depend on firm size across the named executives is $3.24 million. Finally, most of these outstanding bonuses have a relatively short remaining time until the end of the evaluation period when the target is evaluated: the average remaining vesting period is 11 months.

Each bonus grant can depend on more than one measure, and Panel B of Table 2 describes the most common measures that are evaluated. On average, executives in a firm are subject to bonuses that depend on almost 7 unique performance measures (these might be across different grants and different executives). The most common of these is earnings, which is present in 70% of firm-years on average, and EPS, which is part of bonuses for 41% of firm-years. Earnings, in particular, can also be viewed as a measure that encourages larger size (as sales and earnings are correlated), and our analysis will separately study the role of earnings incentives as well. Less commonly used measures for determining bonuses include stock price (13% of firm-years) and measures of operating performance (14%).

Panels C–E describes summary statistics for M&A outcomes. First, Panel C shows that 21% of all firm-years in the sample (i.e., not conditional on having a GPD) have at least one acquisition announcement, and 7% of firm-years have announcements of the acquisition of a public target or a public target's subsidiary.

A total of 4,989 deals meet our sample criteria, of which 1,343 deals (27%) involve targets that are either publicly listed or are subsidiaries of publicly-listed firms. We report summary statistics for the deal characteristics in Table 2 for all acquisitions (Panels C and D) as well as separately for acquisitions of public targets or their subsidiaries (Panel E).

The mean relative size (to the bidder) of acquisitions is about 6% (12% for public targets alone). The mean (median) abnormal returns for target firms, bidders, and their combined abnormal returns are 16% (5.91%), 0.33% (0.20%), and 1.39% (0.71%). The average target abnormal returns are notably lower than many M&A studies because we compute abnormal returns of the parent firms of targets that are subsidiaries (if the parent is publicly listed). The average premium paid for a publicly-listed target is 43% (median 55%). The method of payment includes a cash component in the majority of deals, with 53% of deals being all-cash and 43% having both cash and stock as payment—only 4% of deals are all-stock.

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3 Results

In this section, we study the relationship between firm's use of growth-promoting bonuses and firms' merger and acquisition activity and outcomes.

3.1 Likelihood of becoming an acquirer

We posit that firms with more top executives compensated with growth-promoting incentive contracts or that award their executives larger amount of such incentives, have a higher likelihood of becoming an acquirer. To the extent that growth-promoting incentives provide an incentive to grow the size of the corporation, managers of these firms may choose to achieve their bonus thresholds by buying size by undertaking mergers and acquisitions.

In Table 3, we present the results of linear probability models (LPM) where we examine whether granting GPBs to executives is associated with a higher likelihood to become an acquirer.[12] The analysis in Table 3 includes all deals (both publicly traded and privately held target firms).

TABLE 3 ABOUT HERE

In Panel A of Table 3, the key independent variable is the % of top executives who receive growth-promoting bonuses (*GPB(% of executives)*). In Panel B of Table 3, we replace this variable with the logarithm of the dollar value of growth-promoting bonuses granted to the firm's executives each year (*GPB(log $ value)*). Models (2), (3) and (4) include firm specific control variables that could be correlated with the firm's decision to become an acquirer. Specifically, we control for governance measures such as CEO compensation delta, CEO-chairman duality indicator, CEO tenure, board size and the extent that the board is co-opted. We also control for the firm's size and age, cash holdings, capital expenditure, profitability (OIBDA/assets) and industry Tobin's Q. Moreover, in model (4), we control for whether the executives receive bonuses with earning-based measures (e.g., EPS) as the metric. All variables are defined in the Appendix. In model (4), to control for unobserved industry-specific shocks all specifications include interacted year-industry (2-digit-SIC) fixed effects (Gormley and Matsa (2014)).

In model (1) in Panels A and B, the coefficient on the measure of growth promoting incentives is positive and statistically significant at the 1% level. We find similar statistically significant results including control variables (models (2) and (3)) and industry-by-year fixed effects (model (4)). In terms of economic significance, in model (4) of Panel A, we find that

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[12]The estimates of economic significance for LPM in this section are based on marginal effects computed with all other variables held fixed at their mean.

having executives receiving GPBs is associated with a 4.4 percentage-point increase in the likelihood of becoming an acquirer. In Panel B, a one-standard deviation increase in the amounts at stake predicts a 4.5 percentage point increase (log(3.65 million)*0.003=4.5) in the likelihood of becoming an acquirer. Overall, these estimates represent around a 25% increase relative to a base likelihood of 21%.[13] Finally, we do not find any evidence that earning-based bonuses affect the probability of becoming an acquirer.

Next, we investigate whether our findings differ by deal type. In Panel A of Table 4, we study whether the relation between GPBs and likelihood of becoming an acquirer changes with the relative size of the target firm to the bidder firm. To this end, we use specifications similar to those in Panel A of Table 3, but with the dependent variable in each model indicating whether the deal is in a specific relative size bracket. All specifications in 4 include similar control variables as those in model (4) of Table 3 as well as year-industry fixed effects. Notably, we find statistically significant results only for deals in which the target is smaller than 2% of the sum of the target and the bidder market capitalization. The results for these relatively smaller targets are also economically significant as having executives receiving GPBs is associated with a 1.8 percentage point increase in the likelihood of acquiring a firm that is between 1%–2% of the overall market cap of the bidder and the target.

These findings are consistent with smaller acquisitions being motivated by a desire to meet growth-promoting performance thresholds. By contrast, we find little evidence that explicit incentives to promote growth encourages "megadeals." Therefore these results indicate that executives may use M&A deals on the margin to meet sales targets in their bonus contracts. This may be because smaller deals are less likely to be challenged, scrutinized or renegotiated—and that at the same time, smaller targets may be sufficient to reach sales targets in the executives' growth-promoting incentive contracts.

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In Panel B of Table 4, we investigate whether our findings vary with the deals method of payment. For cash and mixed deals we find similar and statistically significant results as in Table 3. However, in stock deals we do not find a relationship between growth-promoting incentives and likelihood of becoming an acquirer. This is consistent with cash deals, as they are less scrutinized by the board, providing an easier opportunity relative to stock deals for the managers to buy growth in order to meet their growth-promoting goals in their compensation contracts. This finding is also consistent with Harford et al. (2012) that shows value-destroying deals by entrenched managers are less likely to be all-equity offers.

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[13]In untabulated tests, instead of the LPM in Table 3, we run logistic regressions and find similar results.

We also find that our findings are concentrated among deals in which both bidder and target are from the same industry. Therefore as with cash deals, to the extent that within-industry deals are less likely to face scrutiny from the board, within-industry deals are also more likely to be used by managers to meet growth-promoting goals in their bonuses.[14] Finally, we find that GPBs are associated with higher likelihood of acquiring publicly traded targets. This finding is consistent with Harford et al. (2012) who show one way entrenched managers destroy value in acquisitions is that they disproportionately avoid private targets, which have been shown to be generally associated with value creation.

Next, we investigate whether the CEO's relative power over the board could affect whether GPBs affect the likelihood of becoming an acquirer. To test this hypothesis, in Panel A of Table 5 we run regressions similar to those in Panel A of Table 3 where as an independent variable, we also include the interaction of the fraction of executives who receive GPBs in a given year (*GPB(% of executives)*) with a CEO-chairman duality indicator variable. We find the coefficient on this interaction term to be statistically significant at the 5% level in both models (1) and (2). This suggests that the positive association between GPBs and likelihood of engaging in M&A activities is higher among firms where the CEO is also the chairman of the board. Given that this governance proxy measures the power of the CEO over the board, this result is consistent with these deals not being desirable for the shareholders of the bidder firm. This finding relates to Masulis et al. (2007) who show that stronger external governance can mitigate empire-building acquisitions that destroy shareholder value and Harford and Li (2007) who finds that even in mergers where bidding shareholders are worse off, bidding CEOs are often better off following the mergers.

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Table 5 About Here

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Finally, we investigate the role of firm's cash holdings in whether growth-promoting bonuses affect likelihood of engaging in M&A activities. We posit that a firm's decision to become an acquirer may be influenced by the level of cash they hold on their balance sheet. Seminal papers such as Jensen (1986) and Harford (1999) argue that cash-rich firms are more likely than other firms to attempt acquisitions and that these deals are more likely to destroy shareholder wealth. In Panel B Table 5, we include the interaction of the firm's cash-to-assets ratio with the fraction of executives who receive GPBs. Our findings indicate that firms that are both cash-rich and have a larger fraction of their managers receiving GPBs are more likely to attempt acquisitions. This result is statistically significant at the 5% level. Notably, when

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[14]In untabulated tests, we verify that our findings in Tables 4 and 5 remain similar if we replace the fraction of executives who receive growth-promoting bonuses (*GPB(% of executives)*) with the logarithm of the dollar value of their growth-promoting bonuses (*GPB(log $ value)*).

we divide the deals based on their method of payment, we find that this result is concentrated among cash deals as we do not find statistically significant coefficient on the interaction term for stock offers (columns 2 and 3).

To summarize, our results suggest that growth-promoting bonuses are incentivizing M&A activities—a result that is more pronounced for cash-rich bidders and firms with powerful CEOs. The natural question is whether these deals are different from others in terms of the value creation and value transfer between the bidder and the target shareholders. Thus, next we turn our attention to how shareholder value of the bidder and target firms change in deals where the bidder executives receive more GPBs.

3.2   Comparison of firms with and without growth-promoting bonuses

Our results thus far indicate that firms with managers who have growth-promoting bonuses tend to do more acquisitions. One interpretation of these results is that managers with GPBs increase M&A activity to boost sales, thus increasing their bonus payouts. However, another possible interpretation is that an omitted variable drives both higher GPBs and more merger activity. For example, it may be optimal for firms that plan to do acquisitions to also award their managers more GPBs. Another possibility is that our governance proxies are imperfect and that poorly governed firms may simultaneously have both more GPBs and also do more acquisitions. Thus, even though we control for a range of firm-, executive-, and governance-related variables, as well as industry-year fixed effects, it is possible that some unobservable variables may explain our results.

Any alternative hypothesis that is driven by unobservable omitted variables becomes more likely if firms with and without GPB contracts differ significantly across many dimensions. How different are firms offering GPBs from firms that do not have these incentive contracts? In Table 6, we compare the characteristics of firms with GPBs and those without. On the one hand, the comparison in Table 6 shows that firms with GPB incentives, on average, appear quite different across several sets of characteristics. For example, GPB firms tend to be smaller and younger and have more cash than non-GPB firms. But crucially, these "raw" differences across GPB and non-GPB firms are mostly driven by variation *across different industries*, as firms in some industries are more likely to have GPBs than others. When we compare firms *within* the same industry and year (in the last column of the table), most of the differences between GPB and non-GPB firms disappear, and these two groups of firms appear much more similar. For example, in this comparison, firms with GPB are now similar in size, age, and cash, and these differences are also no longer statistically significant. Comparing differences within industry and year is critical as our regressions control for industry-by-year fixed effects.

Thus, the only variation these regressions exploit is that within industry and year. In addition to the differences (within industry-year) across the vast majority of firm characteristics being statistically insignificant, these differences are also economically small. The only remaining statistically significant difference at the 5% level is profitability, where firms with GPB have around 1.26% percentage points higher operating income before tax (scaled by assets) which is a small difference in economic terms. Moreover, we control for all of these variables in our regression specifications throughout the paper.

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Table 6 About Here

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Overall, this simple comparison suggests that firms with and without GPB contracts are similar across many observables after accounting for industry-by-year fixed effects. This finding is important since it broadly helps alleviate the concern that the differences in merger activity are not driven by managers' incentives to use acquisitions to meet growth thresholds but instead by an omitted factor. Yet, in the remainder of the paper, we offer three additional pieces of evidence to help rule out an omitted variables concern. First, in the next section, we use shocks to firms' sales driven by (plausibly exogenous) exchange-rate changes to isolate the mechanism of using acquisitions to beat the sales target. Second, we analyze abnormal returns and find that GPB-motivated acquisitions tend to be associated with lower abnormal returns—this result is inconsistent with one of the main omitted variables concerns whereby firms that benefit more from acquisitions also tend to offer GPBs to managers. Finally, in section 3.5, we show that a significant fraction of firms with GPBs whose executives would have just missed the GPB growth threshold only meet the threshold due to an acquisition, which is also consistent with motives of explicitly pursuing an acquisition to meet the bonus target.

3.3 Exploiting exchange-rate based shocks to sales to isolate a causal mechanism

The baseline evidence appears consistent with executives conducting acquisitions to meet the sales bonus target. However, as we previously discussed, this evidence is subject to possible concerns of omitted variables. In order to more concretely rule out the possibility that some other mechanism explains the relation between GPBs and acquisitions, we ideally need a plausibly exogenous shock to the bonus target itself or a shock that affects the need to make acquisitions to achieve the bonus target. In this section, we exploit changes to exchange rates as such a shock.

Many firms in our sample export a significant fraction of their output, and while some

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globally traded goods are priced in U.S. dollars, many goods are priced in the local currency wherever they are sold. Suppose an American firm is exporting to the Euro area, and the strength of the U.S. dollar suddenly falls relative to the euro's value during the year. This means that every euro the firm earns from its sales in the Euro area now will translate into more dollars for the exporting firm.[15] In this case, the exporting firm will receive a "windfall" of sales as measured in dollars; and because the sales targets for GPBs are also set in dollars, it makes it easier to meet the target. Such windfalls—even if they only affect sales by a few percentage points—can make a big difference to the incentives to make acquisitions in order to beat the sales target/threshold. This is especially the case as the targets tend to involve sales increases of a few percentage points; indeed, as we found in Table 4, the types of acquisitions that are more likely for firms with GPBs are also precisely those deals around low-single-digit relative target sizes.

Suppose now the causal mechanism underlying the relation between GPBs and merger activity is that executives use acquisitions to beat the target/threshold for the bonus contract; in that case, we expect that firms would be less likely to do acquisitions when the USD is weak compared to other currencies (and foreign-denominated sales thus translate into many dollars) since firms would not need the extra acquisitions to meet the target, and further, that this relation should hold especially for firms that have significant exports in those currencies. We would ideally like to perform analysis separately for each export country and foreign-currency-to-USD pair, but we nevertheless face the challenge of obtaining precise country-level export data for each firm. Therefore, to operationalize this test, we group all reported exports by each firm—regardless of whether those exports are reported, for example, at the country or region level—and use a USD trade-weighted exchange rate measure to capture the relative strength of the U.S. dollar over time.

In Table 7, we run this test and report results for how exchange-rate-based shocks to sales affect the relation between having GPB contracts and firms' M&A activities.

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TABLE 7 ABOUT HERE
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The dependent variable is *Any Deal*, which is an indicator for whether the firm makes an acquisition during the year, similar to tables 3 and 5. The main explanatory variable is the triple interaction between having growth-promoting bonuses, a year-on-year negative drop in the relative strength of the U.S. dollar, and the firm being an exporter. We expect this triple-interaction to be negative, such that when the USD exchange rate is relatively weak, firms with

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[15]In this example, we imagine a scenario with constant prices in euro, but another possibility is that a weaker dollar enables exporters to lower their euro-denominated prices, and thus increase the quantities sold—in either case, USD-denominated sales would be expected to rise.

GPBs that also have significant exports are less likely to acquire other firms since they are more likely to meet the growth target even without an acquisition. We measure growth-promoting bonuses similarly to the previous tables, using *GPB (% of executives)* (in column 1) or *GPB (log $ value)* (in column 2). The way we define whether the firm has significant exports (*Exporter*) is based on an indicator for whether the firm reports foreign sales in the Compustat customer-segment file. We measure the relative strength of the U.S. dollar using the Nominal Broad U.S. Dollar Index, which is a trade-weighted index.[16] In Table A2, we show that the changes in this index significantly predict differential changes to sales for the firms that we classify as exporters in exactly the direction we would expect: When the dollar becomes relatively stronger relative to the trade-weighted basket of other currencies, the sales for exporting firms tend to decrease, and vice versa.

To capture a shock to the relative strength of the dollar, we create an indicator *USD exchange-rate shock* for whether there was a larger-than 5% year-to-year *drop* in the Nominal Broad U.S. Dollar Index, from the beginning of the first fiscal month of the previous year to the first fiscal month of the current year. The idea is that such a drop in the relative value of the U.S. dollar is likely to raise the USD-denominated sales of exporting firms. As in previous tables, the regressions include interacted 2-digit-SIC industry-by-year fixed effects and a range of firm-, executive-, and governance-related control variables. We additionally include time (year-month of the firm's fiscal year-end) fixed effects, which absorbs the uninteracted measure for *USD exchange-rate shock*. The latter time fixed effects more precisely account for the fact that changes to the strength of the U.S. dollar could be related to aggregate economic conditions; we thus control for such a possible aggregate effect and only exploit cross-sectional differences in how exporting firms with GPBs differentially change their behavior in response to exchange-rate shocks relative to non-exporters.

Before we discuss the main variable of interest—the triple-interaction—we first describe the effects on the other explanatory variables. First, consistent with our findings from Table 3, we see that the baseline effect of having GPB contracts predicts a greater likelihood of acquiring other firms by around 2.4 percentage points (in this table, this coefficient captures the effect specifically for non-exporters outside of periods with negative exchange-rate shocks). The next coefficient on *Exporter* is also positive, 0.028, and shows that exporting firms (i.e., those exporting firms without growth-promoting bonuses), holding other things constant, are more likely to acquire other firms. Next, firms with GPBs that are also exporters tend to be more likely to acquire other firms (coefficient 0.02), although this effect is not statistically significant. The coefficient on the interaction *GPB×USD exchange-rate shock* shows that non-exporters tend to do relatively more acquisitions when the USD exchange rate is weak. Additionally, the

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[16]The data for this index is downloaded from the Federal Reserve Economic Data (FRED) website.

coefficient on *Exporter×USD exchange-rate shock* shows that exporters in times of negative USD exchange rate shocks tend to do more acquisitions; this effect is consistent with these firms potentially having more cash flow when the U.S. dollar is weak that they can use for acquisitions. Finally, our main coefficient of interest, the triple-interaction, shows that firms with GPB and that are exporters—specifically in times when the USD exchange rate has suffered a negative shock—tend to do significantly *fewer* acquisitions. This effect is also economically large, around nine percentage points (column 1).

This result is consistent with our underlying hypothesis and helps us isolate the mechanism for doing more acquisitions as being that executives use these acquisitions to meet their sales target. That is, while the exporting firms *without GPBs* tend to do *more* acquisitions in these times when the dollar is weak, the firms with GPBs do exactly the opposite and make relatively *fewer* acquisitions (note that the coefficient on the last two coefficients is about double in magnitude and of opposite sign). The results in column 2, which use the dollar-based ("intensive-margin") measure for GPB, provide qualitatively similar findings. These tests support a causal mechanism whereby executives use acquisitions to strategically beat the payout threshold for the GPB contracts. Additionally, these tests are inconsistent with alternative mechanisms that rely on omitted variables (e.g., some channel related to unobserved governance problems) as we do not see a reason for such omitted variables to also vary with the relative strength of the U.S. dollar compared to other global currencies (and to do so selectively only for the exporting firms).

3.4   Shareholder value implications of growth-promoting bonuses

Are growth-promoting bonuses associated with lower shareholder returns for the acquiring firms' shareholders? Do target firm shareholders benefit from acquisitions where the acquirers' executives receive GPBs? Is value created or destroyed beyond what is transferred between the acquirer and target shareholders? We address these questions in turn in this section.

First, we test whether executives who receive GPB contracts engage in M&A deals that benefit their shareholders. If these deals are merely the consequence of managers trying to meet their growth goals in their compensation contacts, it is possible that acquiring firms' shareholders wealth could be destroyed via these acquisitions. In Table 8, we run OLS regressions where the dependent variable is the acquirer returns around the announcement of the deal. In this analysis, we focus on the sample of all deals between 2007 and 2017 where the target is publicly traded.[17] This results in 1271 observations. In addition to all the control variables included in our analysis in Table 3, we also include deal-specific control variables such as the logarithm of

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[17]Our results remain unchanged if we include deals where the target is privately held (see the appendix).

the dollar value of the transaction, an indicator for cash deals, an indicator for mixed payment deals and an indicator for within-industry deals.

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TABLE 8 ABOUT HERE

We compute the gain of the bidder by the cumulative daily dollar abnormal returns of the bidder around the announcement. We focus on the day (-3,+1) window around the announcement date so our event window captures the possibly leaked information in the immediate days prior to the merger agreements. The key independent variable in Panel A is the fraction of executives who receive growth-promoting bonuses (*GPB(% of executives)*). In model (1), the coefficient on this variable is negative and statistically significant at the 1% level. This implies that having executives with GPBs is associated with around 1 percentage points lower returns for the bidder shareholders around the takeover announcement. Given that the average acquirer returns are only slightly positive (0.3%), this means that the average return for these deals is negative, and these deals destroy bidder shareholder value on average.[18] The results are similar when we control for firm and deal specific characteristics (models (2), (3) and (4)). In Panel B of Table 8, we replace the key dependent variable with the size of the growth-promoting incentives in dollars (*GPB(log $ value)*) and find similar and statistically significant results in all specifications with and without control variables and year and industry fixed effects.

If increased merger activity is motivated by the acquirer managers' explicit incentives to boost firm growth, we expect target firms to benefit from such deals in which the bidder manager overpays in order to achieve the growth goals in her incentive contracts. Therefore, we next investigate whether the offer premium is higher where managers of the bidder firm are granted GPB contracts (Panel A of Table 9). In this table we run OLS regressions where the explanatory variable of interest is the fraction of bidder firm executives receiving growth-promoting incentives (*GPB(% of executives)*). All the specifications include year and industry fixed effects. In models (1) and (2) in Panel A, the coefficient on the fraction of executives receiving GPBs is positive and statistically significant at the 10% level implying that on average, bidder firm managers' GPBs are associated with larger offer premium paid to target shareholders.[19] However, this coefficient is not statistically significant in models (3) and (4) in which we also control for bidder firm governance.

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TABLE 9 ABOUT HERE

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[18]The average acquirer returns for firms with GPB is -0.21% compared to 0.64% for firms without GPB.

[19]The sample size in Panel A of Table 9 is smaller than that in Panel B (602 versus 1271 in model (1)) because to be able to estimate the offer premium we restrict the sample to deals in which the entire target firm is acquired in the deal.

In Panel B of 9, we replace the dependent variable with the cumulative daily dollar abnormal returns of the target firm around the deal announcement ((-3,+1) window). Similar to Panel A, we find statistically significant results in models (1) and (2) but results become statistically insignificant in models (3) and (4) where bidder governance control variables are included. Overall, we find some evidence of benefits to target shareholders in the form of larger offer premiums and higher target abnormal returns upon the announcement of deals in which the acquiring firms' management receives more GPBs.

The significantly lower acquirer abnormal returns for deals in which managers had growth-promoting incentive contracts hand in hand with the higher target announcement returns for such deals suggest value transfers from bidder shareholders to target shareholders. Next, we study whether the combined target and acquirer returns are lower for deals where the bidder executives receive GPB contracts. We compute the combined gain of the bidder and target by summing up the cumulative daily dollar abnormal returns of the target and bidder around the announcement and then dividing by the combined market capitalizations of the bidder and target 50 trading days before the announcement (following e.g. Ahern (2011)).

TABLE 10 ABOUT HERE

Table 10 reports results of OLS regressions where the dependent variable is the combined announcement returns of the bidder and target in the (-3,+1) window. All specifications include industry and year fixed effects. The explanatory variable of interest is the fraction of bidder executives receiving growth-promoting bonuses (*GPB(% of executives)*). The coefficient on this variable is positive and statistically significant at 1% level in models (1) and (2) and statistically significant at the 5% and 1% levels in models (3) and (4), respectively.In terms of economic significance, one standard deviation increase in the fraction of executives receiving GPBs decreases the the combined gains by 0.6–0.8%. This finding is consistent with growth-promoting incentive compensation encouraging managers to engage in empire-building merger activity with significantly lower synergies, thus destroying wealth for the bidder firm.

A possible alternative explanation of our results that we consider is that acquisition announcements could signal what the future prospects of acquirers are. Acquirer announcement CARs would then be driven by the information revealed about acquirers' future prospects rather than the value impact of the acquisition itself. For instance, tge acquisition announcement could signal an acquirer's need to "purchase growth" because its internal growth opportunities are limited. While we cannot fully rule out this possibility, our comparisons of firms within industry and year show that firms with GPBs, if anything, tend to have *higher* market-to-book ratios, which is likely to indicate *more* internal growth opportunities rather than less. Further-

more, firms with and without GPBs exhibit similar rates of sales growth, suggesting that it is ultimately unlikely that acquisitions by firms with GPBs stem from a lack of internal growth opportunities.

In summary, these results suggest deals conducted by bidders who receive growth-promoting bonuses tend to have lower acquirer announcement returns due to higher value transfers to the target and lower value creation from synergies.

3.5 Counterfactuals and threshold goals in growth-promoting bonuses

Similar to any executive bonus contract, a bonus grant linked to firm's sales identifies threshold, target and maximum value for firm's sales (or sales growth). The payout from the grant or the vesting schedule of the grant is then tied to the firm achieving these particular goals. The range between the threshold and the maximum value is called the incentive zone. In a typical growth-promoting contract, the manager would receive no payout if sales is below the threshold and her payout increases as sales exceeds the threshold up to the maximum value sales indicated in the contract. There exists discontinuity in the pay-performance relationship at both the threshold and the maximum value.

In this section, we focus on the threshold of GPB contracts of executives of the acquiring firms to investigate whether they would have missed their bonus threshold without conducting the merger. Instead of the target goals—where upon reaching the manager receives the expected bonus—we focus on the thresholds as the discontinuity in the payout function around the threshold could potentially create a more meaningful incentive to engage in M&A activities.[20]

We begin our empirical analysis by comparing the threshold sales in the executive compensation contracts to the firm's reported sales for all firms—not only for those that engage in M&A.[21] The data are at the grant level. We construct the difference between the realized sales and the threshold sales to identify the clustering of sales at the bonus threshold. This measure is the relative difference in percentages between actual sales as reported in Compustat and the threshold goal as identified in the pay contract.

In Figure 1 we report the histogram of this difference and find that the distribution of the difference between realized and threshold sales has a discontinuity at zero. A disproportionately large number of firms exceed the sales threshold by a small amount as compared to the number

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[20]For the analysis in this section, in order to focus on whether acquisitions affect beating bonus thresholds, we exclude Relative Performance Evaluation (RPE) contracts where the thresholds are set relative to a peer group. Thus, for all the grants in this sample the exact thresholds are known to the managers at the start of the year as they are either sales levels or sales growth rates.

[21]We calculate threshold sales using lagged realized sales and the threshold sales growth if the metric identified in the GPB is sales growth instead of sales level. This allows inclusion of all growth-promoting contracts—where the metric is either sales level or sales growth—in all our analysis in this section.

of firms that fail to meet the sales threshold by a small amount. Due to the jump in pay at the threshold sales for a typical grant in our sample, the clustering of sales around the threshold is less of a surprise. This result is also consistent with Bennett et al. (2017) that reports a similar discontinuity in bonus contracts.

FIGURE 1 ABOUT HERE

Next, we focus on the sample of firms that completed an M&A. We include all deals—both publicly traded and privately held target firms and aggregate the grant data at the deal level, including any outstanding grants that vest after the completion of the deal. In Panel A of Figure 2, we report the histogram of the difference between the realized sales and the threshold sales for the merged firms. To calculate the difference, we use the first realized sales after the completion of the deal reported by Compustat. In Panel B of Figure 2, we report the counterfactual results where we compare what the sales would have been in the absence of the merger with the threshold sales in the contract. In order to estimate the counterfactual sales of the acquirer, we subtract the weighted target firm's sales (weighted by the fraction of the year remaining in the fiscal year from the date the deal is completed) from the first realized sales after deal completion. Because the sample for this figure includes deals where the target is a private firm, we estimate target firm's sales by using the median Enterprise Value (EV) to sales multiple for the target firms' 2-digit-SIC industry multiplied by the EV of the target firm.

FIGURE 2 ABOUT HERE

Comparing the two histograms in Panel A and Panel B suggests executives of some firms that would have missed the threshold sales in their contracts meet their threshold goals because of conducing the deal. This is visually evident from the shift of the mass of firms from just below 0 in Panel A to just above zero in Panel B. There are 140 firms that without the acquisition appear to be barely missing their threshold sales in their executives bonuses (i.e., within 5% of the threshold). Among these firms, 42 firms (30%) exceed their threshold goal because of the acquisition. 23% (18%) of those barely missing their threshold sales achieve them when they complete the acquisition if we widen the sample of firms that barely miss their threshold sales to those missing them by 10% (20%) in the absence of the deal. This result indicates that a large fraction of executives with GPB contracts who would have not been paid in the absence of the M&A, receive their bonus payments because of the deal. This further suggests that these deals are likely conducted because of GPBs of the bidder executives as these acquisitions have a meaningful effect on the payout to these executives.

Finally, in Figure 3 we redo Figure 2 for the sample of firms where the target firm is

publicly traded. This reduces the sample size significantly; however, it allows a more accurate estimate of the counterfactual sales in the absence of the deal. This is because, unlike for private target firms, we can use the actual pre-merger target sales reported in Compustat before the deal completion to estimate the counterfactual sales. The results are similar to those in Figure 2 as 47% of firms which would have barely missed their threshold sales without the acquisition (i.e., withing 5% of the threshold sales) meet their threshold sales in the presence of the acquisition. This further suggests that among the firms that grant GPB contracts, many would have missed their bonus goals without conducting the merger.

FIGURE 3 ABOUT HERE

3.6 Incentives to grow and gains to executives from M&A deals

Having established that firms are more likely to make acquisitions when their executives have GPB contracts, we turn to examining the gains to executives from making acquisitions that affect the payment of GPBs, with the goal of making a comparison to what executives would have been paid had they not made the acquisitions. We do so by comparing executives' realized payouts from GPB contracts to their counterfactual payouts from those contracts had they not made these acquisitions. We focus on the sample of firms that completed an acquisition while having GPBs, and include acquisitions of both publicly traded and privately-held target firms. We estimate executives' monetary gain from their GPB contracts as follows. We take the realized sales to be the first value of sales reported after the completion of a deal in Compustat and estimate the counterfactual sales for each acquiring firm, had the acquisition not taken place, as we do in the previous section. For each growth-promoting grant, we use Incentive Lab data on the threshold, target and maximum value for firm's sales (or sales growth) to estimate the realized payout to the executive from each GPB grant. We repeat then this process for each GPB grant using the counterfactual sales (see previous section) to estimate the payout to the executive from the GPB grant had the acquisition not taken place.[22] For those grants where the payout is equity we estimate the cash equivalent of the grant on the grant date using the grant-date stock price. We aggregate the sum of the cash and cash equivalent payouts for each executive in each year of our sample to construct a realized and a counterfactual payout for each executive-year observation.

In Panel A of Table 11, we report the difference between the realized and counterfac-

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[22]We use interpolation to estimate the payout for each grant if sales is between the threshold and the maximum value indicated in the contract (i.e., if sales is within the incentive zone). We estimate two different slopes—one for sales below target sales and one for sales above target sales.

tual payouts from GPB contracts for each executive-year observation.[23] We also report this difference aggregated at the firm level indicating how much more the top executives of a firm collectively receive from their GPB contracts due to acquisitions. We find that an individual executive receives around $82,000 more from their GPB contract from making an acquisition. This represents an increase of 9.7% (2%) in the executive's bonus compensation (total compensation). Top executives of a firm that does an acquisition collectively receive $335,136 more as a result. These findings are statistically significant at the 1% level. 38% of the executives in this sample received a higher bonus pay as a result of an acquisition (994 out of 2628). Absent an acquisition, 10% of the executives would have missed the GPB payout threshold and therefore not received any payout whatsoever (260 out of 2628).

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TABLE 11 ABOUT HERE

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In Panel B of Table 11, we repeat the analysis in Panel A, restricting to the sample of firms to those that acquire publicy-traded targets. While this restriction reduces the sample size significantly (as is also the case in Figure 3), it allows for a more accurate estimate of counterfactual sales, and consequently the counterfactual payout, absent the acquisition. We find an average increase of $211,747 in an executive's GPB payout as a result of doing an acquisition. This result is statistically significant, albeit only at the 10% level, which is likely to be a result of having a much smaller sample from the restriction of having only publicly-traded targets. These results indicate that making an acquisition in the presence of a GPB increases the value of bonus and total compensation for executives by about 22.1% and 3.9%. 31% of the executives in this sample received a higher bonus pay because of an acquisition (158 out of 506). 14% of the executives would have not received any GPB payout whatsoever absent an acquisition (71 out of 506).

We next focus on estimating losses in the values of executives' equity portfolios as a result of making value-destroying acquisitions associated with GPBs. We use the compensation delta of executives and the abnormal announcement returns around acquisition announcements to estimate these losses and find that on average executives lose $5,526 when we consider both public and private targets, and lose $17,827 when we consider only public targets. It is not surprising that the estimated loses are small in magnitude given that acquirer announcement returns are small, though still negative. More importantly, the gains to executives from GPB payouts that are triggered as a result of doing acquisitions far exceed the losses to their equity portfolios as a result of the (value-destroying) acquisitions. It is therefore clear that there is a monetary incentive for executives to make acquisitions when they have GPBs.

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[23]The sample size in our analysis in Table 11 is smaller than our previous analyses because only a subsample of these firms disclose the bonus threshold, target and maximum value for each grant.

It is also important to consider the career concern incentives associated with GPBs given that executives face an increased risk of forced turnover if they fail to meet the performance goals under bonus plans. For instance, Bennett et al. (2017) estimate that missing a performance goal is associated with an increase of 1.5% in the likelihood of forced turnover. We use their estimate to approximate the monetary losses associated with forced turnovers as a result of not meeting GPB goals. Here we focus our analysis only on executives that would have missed their GPB threshold were it not for an acquisition (N=260), as such executives are most likely to face forced turnover if they did not do an acquisition, and we include acquisitions of both public and private targets. We compute the present value of the expected future compensation for each executive assuming they would remain in their job for at least as long as the average tenure of the other executives in our sample who remained employed for at least as long as that particular executive (i.e. the conditional mean executive tenure in our sample).[24] Using each executive's total compensation and tenure in the year of the acquisition and a cost of capital of 10%, we estimate an average loss of $20.503 million in earnings if an executive is fired. We then use the Bennett et al. (2017) estimate of a 1.5% increase in the likelihood of forced turnover, to obtain an expected loss of $307,558 for the executives had they not engaged in an acquisition and missed the GPB goal as a result.

As we report in Panel C of Table 11, executives in our sample gain an incremental $744,797 from their GPB as a result of doing an acquisition, in addition to a career concern incentive that has a monetary equivalent of $307,558, from mitigating the loss in earnings from a forced turnover following a failure to meet a GPB threshold. Thus the monetary gain for executives from the payout of GPB contract is more than twice as large as the expected loss from forced turnover.[25]

A caveat to our analysis in Table 11 is that not all firms disclose the bonus threshold, target and maximum value for each grant. Thus, as an alternative test for robustness, we estimate a cross-sectional model that predicts the non-equity incentive pay awarded to a firms top-5 named executive officers (NEOs). We use this estimate of non-equity incentive pay to test whether executives of firms with GPB contracts that make acquisitions ultimately receive higher non-equity incentive compensation. To this end, we run OLS regressions with the dependent variable equal to the natural logarithm of (one plus) our estimate for the total value of non-equity incentive pay granted to the top-5 NEOs. Our key explanatory variables are as follows. First we include the % of executives with GPB or the log dollar value of GPBs as measures of GPB. Second, we include the total size of acquisitions made in a given year relative to the size

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[24]That is, if an executive is in his fifth year on the job, we calculate the average tenure for all executives who made it to year five and subtract five from that number to estimate the expected remaining years.

[25]Reputational costs from forced turnovers, such as the negative impact on executives' future employment opportunities and income, would further add to our estimate of the value of executives career concern incentives.

of the focal firm, which we measure as the sum of the market capitalizations of all acquisition targets divided by the sum of the focal (i.e. acquiring) firm's market capitalization and the market capitalizations of all acquisition targets in a given year. Third, we include the interaction of these two variables. We include the same control variables as our previous regressions as well as interacted 2-digit-SIC industry and year fixed effects. We report the results in Table 12.

The results in Table 12 show that executives in firms that award their executives GPB contracts and do more acquisitions ultimately receive a higher amount of non-equity incentive pay, as indicated by the positive and statistically significant coefficients on the interactions between the GPB measures the total relative deal size in models (1) and (2). This result further validates our findings in Table 11. However, it is important to point out that although our cross-sectional analysis in Table 12 has the advantage of a larger sample, unlike our analysis in Table 11, it does not include performance-based stocks (PSUs) as it is restricted to non-equity incentive compensation. In sum, our analyses in this section add further support to the notion that there are significant monetary incentives for executives with GPBs to grow their firms by making acquisitions.

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TABLE 12 ABOUT HERE

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4   Conclusion

Linking executive pay to firm performance is typically desirable in principal-agent theory but can result in unintended consequences. We show that a consequence of tying bonus pay to size-based metrics, sales in particular, is that executives undertake more acquisitions to trigger the payouts of such bonuses, even if these acquisitions are value-destroying. A test that exploits plausibly exogenous variation in the strength of the US dollar relative to other currencies supports a causal interpretation of our results. The financial rewards that executives get from such bonus payouts are substantial, and the bonus payouts exceed the losses executives incur in their equity portfolio from making acquisitions that are value-destroying on average.

Value-destroying acquisitions that executives undertake at the expense of shareholders have long been linked to executives' inherent preferences for higher future compensation and perquisites that can come from running a larger firm. Our findings imply that the ex-ante design of compensation contracts is also an important factor that can incentivize value-destroying acquisitions. In light of the growing use of performance-based stock compensation and non-equity incentive plans that explicitly award hitting various operating performance targets, including sales, EPS, and several other metrics, the possible unintended consequences that come from

focusing on a select few measures (that critically often can be independent of shareholder value creation) warrants higher scrutiny.

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Appendix A: AbbVie's Acquisition of Pharmacyclics

On March 4, 2015, AbbVie announced a definitive agreement to acquire Pharmacyclics in a tender offer with a price of $261.25 per share, with payment comprised of 58% in cash and the remainder in AbbVie stock. The price represented a 39% premium over Pharmacyclics' closing price from February 24th, valuing Pharmacyclics at $21 Billion.[26] Upon the announcement of the deal, AbbVie's stock price declined significantly.[27] By our estimates, the cumulative abnormal return (CAR) for AbbVie from three days before the announcement and ending one day after was –4.34%. This CAR is equivalent to a value loss in dollars of about $4 Billion. The transaction was completed on May 26, 2015.[28]

The compensation packages for the named executive officers (NEOs) of AbbVie in the fiscal year of 2015 included performance-based cash bonuses that were based on AbbVie's performance during the fiscal year relative to specified targets that included sales as one metric. Thus, AbbVie fulfills our definition of having growth-promoting bonuses (GPB) in 2015, at the time of the Pharmacyclics acquisition.

We focus on the CEO of AbbVie, Richard A. Gonzales, whose bonus payout was specified as a multiple of his salary. The terms of Gonzales's contract stipulated that if AbbVie were to meet a target/threshold level of sales of $24.1 Billion, he would receive a bonus worth 200% of his $1.5 million salary, amounting to $3 million. The contract specified that a weight of up to 60% was to be put on meeting the revenue target, considered in combination with "strategic objectives". Gonzales would not receive the bonus if AbbVie failed to meet the sales target, and the bonus was "capped" in that exceeding the target further would not result in a larger bonus for Gonzales. [29]

While the company reported GAAP sales of only $22.85 Billion for 2015, a non-GAAP sales figure that was further adjusted for exchange rate movements was used to determine whether the sales target for the bonus payout was met. This adjusted sales figure amounted to $24.1 billion, which meant that the combined target/threshold for the bonus contract was met exactly, and Gonzales thus received the $3 million bonus for meeting the sales target. It is worth noting that although AbbVie used a non-GAAP sales measure for the bonus calculations, it did not adjust the sales figure downward to account for the acquisition of Pharmacyclics.

Given that the sales target was exactly met, the contribution to AbbVie's sales from

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[26]AbbVie Investors, "AbbVie's Acquisition of Pharmacyclics", March 5, 2015, retrieved from `https://investors.AbbVie.com`

[27]Jonathan D. Rockoff and Peter Loftus, "AbbVie to Buy Pharmacyclics in $21 Billion Deal", *The Wall Street Journal*, March 5, 2015, retrieved from `https://www.wsj.com`

[28]AbbVie Investors, "AbbVie Completes Acquisition of Pharmacyclics", March 26, 2015, retrieved from `https://investors.AbbVie.com`

[29]See form DEF 14A filed by AbbVie dated March 21, 2016 (retrieved from `https://www.sec.gov/`).

the Pharmacyclics acquisition was instrumental in attaining the sales target and triggering the bonus payout for Gonzales. Pharmacyclics' last reported sales figure before the acquisition was $729.7 million. This was largely driven by Imbruvica, a new drug recently launched by Pharmacyclics (its first). Imbruvica was experiencing rapid growth and had sales of $754 million after the acquisition in May 2015, according to an 8-K filed by AbbVie.[30] The sales figures for Pharmacyclics imply that the "counterfactual" sales of AbbVie, had the acquisition of Pharmacyclics not taken place, would almost certainly have been below the combined target/threshold of $24.1B making it clear that Gonzales would have not received the additional $1.8 million bonus from his GPB contract (60% × $3 million of his overall non-equity incentive bonus compensation, since sales accounted for 60%) without the acquisition. To put this amount into perspective, Gonzales's total compensation in 2015 was $20.8 million, implying that without the acquisition of Pharmacyclics, his total compensation for 2015 would have been around 8.6% lower.

[30]See form 8-K filed by AbbVie dated January 29, 2016 (retrieved from `https://investors.AbbVie.com`).

Appendix B: Variable Definitions

This table contains the definitions and descriptions of the variables used in the paper.

Variable	Definition
GPB (% of executives)	Fraction of named executives in Execucomp in the firm who have bonuses explicitly tied to firm size/growth. Measured as of end of fiscal year in firm-year summary statistics; measured as of calendar month for merger outcomes analysis. (Source: ISS IncentiveLab)
GPB (log $ value)	Dollar value of bonuses explicitly tied to firm size/growth. Constructed separate for all named executives, CEO only, and CFO only, respectively. Measured as of end of fiscal year in firm-year summary statistics; measured as of calendar month for merger outcomes analysis. (Source: ISS IncentiveLab)
Relative target size	The ratio of the target firm's market capitalization (if public, or deal value if private) to the sum of the market capitalizations of the bidder and the target (or deal value), where market capitalizations are measured 50 trading days before the announcement (Source: CRSP and SDC).
Any deal	Equals 1 if the firm is an acquirer in an M&A deal and 0 otherwise (Source: SDC).
Cash deal	Equals 1 if the firm is an acquirer and the method of payment offered by bidder was consisted only of cash and 0 otherwise (Source: SDC).
Stock deal	Equals 1 if the firm is an acquirer and the method of payment offered by bidder was consisted only of the bidder's stock and 0 otherwise (Source: SDC).
Mixed deal	Equals 1 if the firm is an acquirer and the method of payment offered by the bidder consisted of both the bidder's stock and cash and 0 otherwise (Source: SDC).
Total deal size (annual)	The sum of the values of target/(target+acquirer) across all deals a firm does as an accquirer in a year (Source: SDC).
Offer premium	Initial offer price per share divided by the target's stock price 50 trading days before the takeover announcement (Source: CRSP and SDC).
Combined gain	The sum of the target and bidder's cumulative dollar abnormal returns in the (-5,+1) day-window around the announcement of the takeover divided by the sum of the target and bidder's market capitalizations 50 trading days before the takeover announcement date (Source: CRSP).
Acquirer CAR (-i,+j)	The cumulative abnormal return of the acquirer from day i to j relative to the announcement of the deal, computed using a 4-factor return model (Fama and French (1993), Carhart (1997)) with a 250-dayestimation window ending 30 days before the announcement with at least 60 observations (Source: CRSP)
Target CAR (-i,+j)	The cumulative abnormal return of the target from day i to j relative to the announcement of the deal, computed using a 4-factor return model (Fama and French (1993), Carhart (1997)) with a 250-dayestimation window ending 30 days before the announcement with at least 60 observations (Source: CRSP)
Cash/assets	Cash and Short-term Investments divided by total assets (Source: Compustat).

OIBDA/assets	Operating income before depreciation and amortization divided by total assets (Source:Compustat).
CEO-chairman duality	Equals 1 if the CEO is also the Chair of the board of directors and 0 otherwise (Source: Execucomp and BoardEx).
Co-opted board	The fraction of the directors on the board appointed after the current CEO took office (Source: Lalitha Naveen).
Sales	Net sales divided by total assets (Source: Compustat).
Tobin's Q (industry-level)	The average ratio of the market value of assets to book value of assets computed following Baker and Wurgler (2002) for the 2-digit SIC industry. (Source: Compustat).
Firm size	The logarithm of firm's total assets (Source: Compustat).
Firm age	The number of years since the firm first appeared in Compustat (Source: Compustat).
CEO compensation delta	The change (in thousands of dollars) in the dollar value of the executive's wealth derived from ownership of stock and stock options in the firm when the firm's stock price changes by 1%. We calculate the delta of the executive's compensation as the sum of the deltas of the options holdings and the delta of the stock holdings. The delta of options holdings are calculated based on the methodology in Guay (1999) and Core and Guay (1999) (Source: Execucomp, calculated using code provided by Lalitha Naveen).
Capex/assets	Property, plant and equipment divided by total assets (Source: Compustat).
Board size	The logarithm of the number of directors firm's board (Source: BoardEx).
CEO tenure	Number of years since the CEO has become the CEO (Source: Execucomp).
Exporter	Indicator whether the firm is an exporter, based on reporting foreign sales in the Compustat customer-segment file. (Source: Execucomp).
ΔUSD Strength	The percent year-to-year change in the Nominal Broad U.S. Dollar Index from the beginning of the first fiscal month of the previous year to the first fiscal month of the current year. (Source: FRED, Federal Reserve Economic Data).
USD exchange-rate shock	Indicator for whether there is a larger-than 5% year-to-year drop in the Nominal Broad U.S. Dollar Index (Source: FRED, Federal Reserve Economic Data).
Log of Non-equity incentive compensation	The natural logarithm of (one plus) the total value of non-equity incentive pay awarded to the top-5 named executive officers in the firm. (Source: Execucomp).
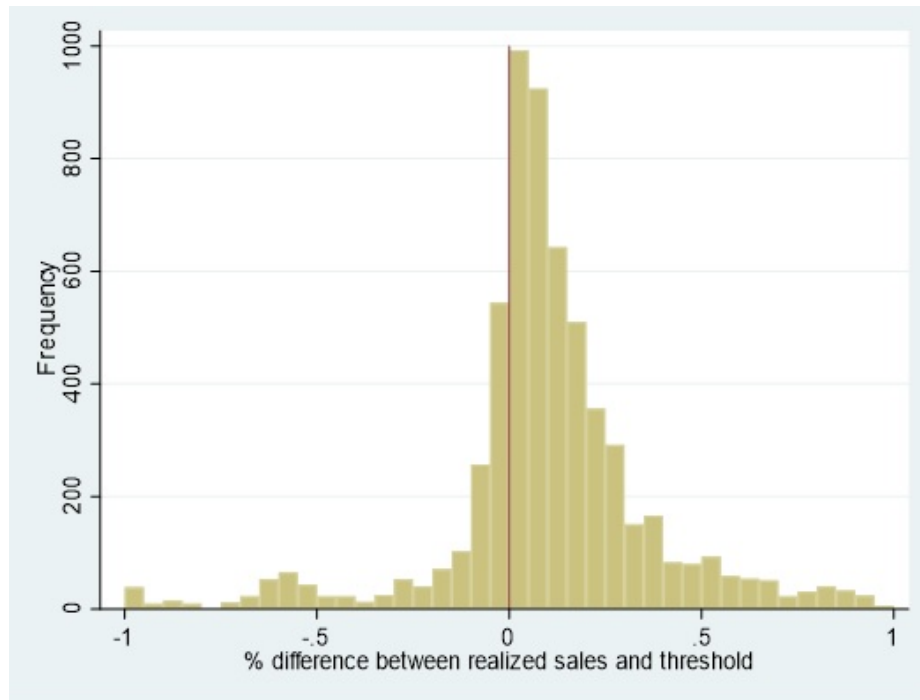
Figure 1: Distribution of the difference between realized sales and bonus thresholds for all firms with GPB

This figure shows the distribution of the relative difference in percentages between actual sales as reported in Compustat and the threshold goals as identified in the pay contracts for all firms—not only those that engage in M&A.
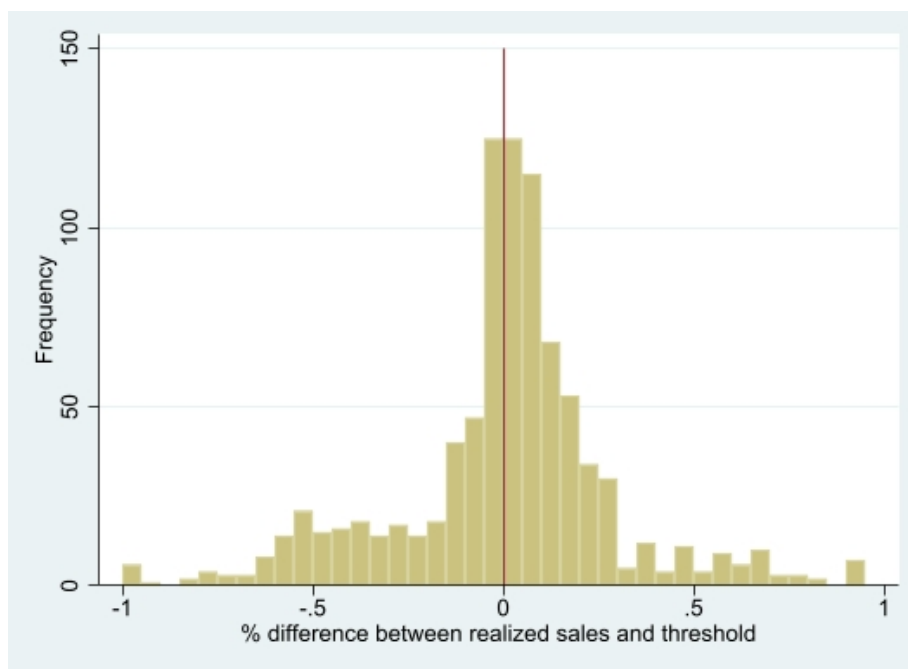
Panel A: Actual sales
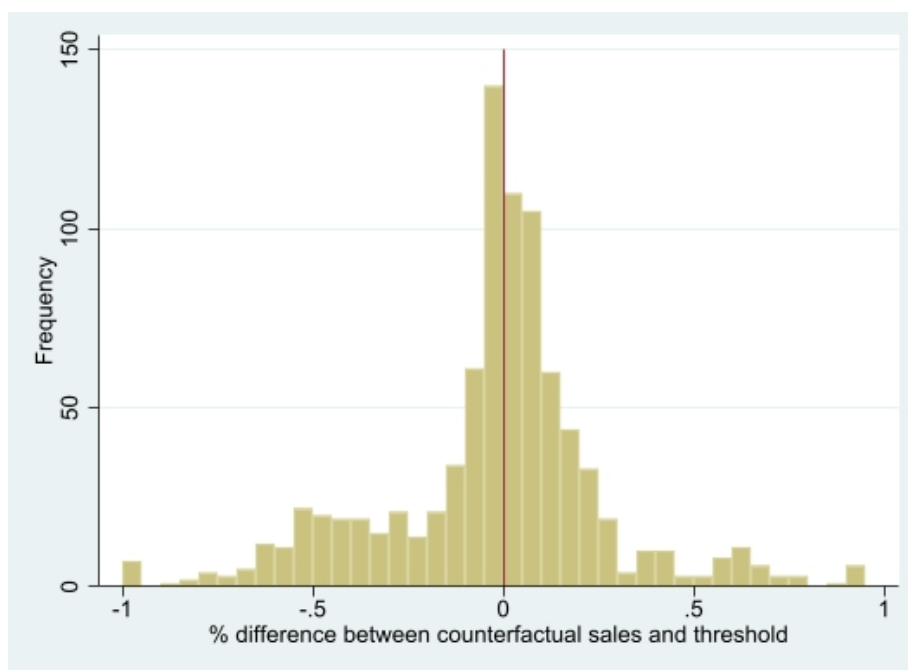
Panel B: Counterfactual sales

Figure 2: Actual vs. counterfactual distributions of the difference between realized sales and bonus thresholds for acquirers with GPB

Panel A, for the sample of firms that completed an M&A, shows the distribution of the relative difference in percentages between actual sales as reported in Compustat and the threshold goals as identified in the pay contracts. To calculate the difference for very firm, we use the first realized sales after the completion of the deal reported by Compustat. Panel B, for the sample of firms that completed an M&A, shows the distribution of the relative difference in percentages between counterfactual sales (i.e., what would have been in the absence of the merger) and the threshold sales in the contracts. To estimate the coutnerfactual sales of the acquirer, we subtract the weighted target's sales (weighted by the fraction of the year remaining in the fiscal from the date the deal is completed) from the first realized sales after deal completion. We estimate target's sales by using the median Enterprise Value (EV) to sales multiple for the target firms' 2-digit-SIC industry multiplied by the EV of the target firm.

Panel A: Actual sales
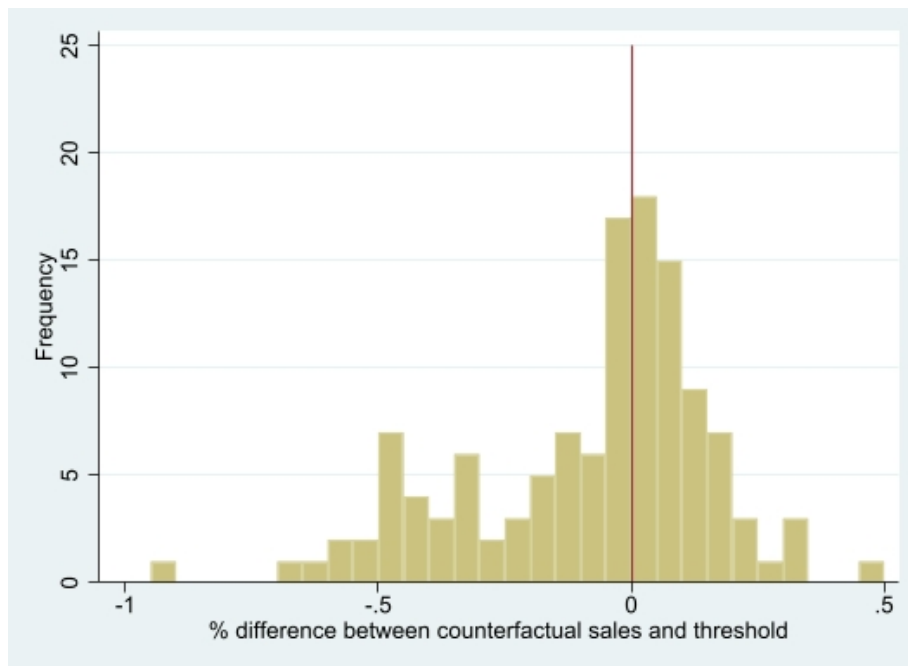
Panel B: Counterfactual sales

Figure 3: Actual vs. counterfactual distributions of the difference between realized sales and bonus thresholds for acquirers with GPB—only public targets

Panel A, for the sample of firms that completed an M&A with a publicly traded target, shows the distribution of the relative difference in percentages between actual sales as reported in Compustat and the threshold goals as identified in the pay contracts. To calculate the difference for very firm, we use the first realized sales after the completion of the deal reported by Compustat. Panel B, for the sample of firms that completed an M&A with a publicly traded target, shows the distribution of the relative difference in percentages between counterfactual sales (i.e., what would have been in the absence of the merger) and the threshold sales in the contracts. To estimate the coutnerfactual sales of the acquirer, we subtract the weighted target's sales (weighted by the fraction of the year remaining in the fiscal from the date the deal is completed) from the first realized sales after deal completion. We estimate target's sales by the actual pre-merger target sales reported in Compustat before the deal completion.

37

Table 1
Growth-promoting Bonuses

This table reports summary statistics for growth-promoting bonus grants (GPB). The sample consists of Incentive Lab firms for the period between 2007 and 2017 for which data are available in Compustat and CRSP. GPB grants are defined as grants whose payment is made contingent upon meeting a threshold in one of the following metrics: sales, market share, bookings, production, book value, net asset value or acquisitions. Panel A reports the prevalence of GPB in the sample of grants in Incentive Lab. Panel B reports the incidence of metrics we classify as growth-promoting.

Panel A: Prevalence of Growth-promoting bonuses (GPB)			
	N	% of all grants	% of of all firms
Total number of grants	159,178		
Number of grants with GPB	33,837	21 %	
Total number of unique firms	1,403		
Number of unique firms with GPB	909		65%
Panel B: GPB metrics			
	Number of grants	% of all GPB grants	Number of unique firms
Sales	32,753	96.8%	862
Market share	574	1.7%	51
Production	309	0.9%	19
Bookings	236	0.7%	27
(Adjusted) Book value	140	0.4%	11
Acquisitions	126	0.4%	17
Net asset value	72	0.2%	7

Table 2
Summary Statistics—Growth-promoting Bonuses and M&A

This table reports descriptive statistics for growth-promoting bonuses (GPB) and M&A deals. In Panel A, the sample consists of Incentive Lab firms for the 2007-2017 period with data available in Compustat and CRSP. The grant data is aggregated at the annual level and the unit of observation is a firm-year. *GPB (% of executives)* is the fraction of executives who receive growth-promoting bonuses in that year. *GPB (CEO)* and *GPB (CFO)* are indicator variables equal to one if the CEO and the CFO receive GPB, respectively. *GPB ($ value, all execs)* is the dollar value of the growth promoting bonuses granted to the executives in that year. *GPB ($ value, CEO)* and *GPB ($ value, CFO)* are the dollar value of the GPB granted to the CEO and the CFO, respectively. We also separately report statistics for 6371 firm-year observations where at least one of the firm's executives receiving GPB. Panel B reports descriptive statistics on the prevalence of "other" (i.e., not explicitly growth-dependent) measures in the bonus contracts. Panel C reports descriptive statistics for the firm-year observations on the incidence of acquisition announcements by the sample firms. Data on acquisitions is obtained from SDC and includes any deal with a disclosed value that is either completed or withdrawn. Panel D reports descriptive statistics on characteristics of acquisitions/deals announced by firms in our sample. Panel E reports descriptive statistics only for acquisitions of targets that are either publicly-listed or are subsidiaries of publicly-listed firms, by firms in our sample. All variables are defined in the Appendix.

Panel A: Growth-promoting bonuses (GPB)								
	Mean	SD	p1	p25	Median	p75	p99	N
GPB (% of executives)	0.34	0.45	0	0	0	1	1	15,863
GPB (CEO)	0.33	0.47	0	0	0	1	1	15,863
GPB (CFO)	0.32	0.46	0	0	0	1	1	15,863
GPB ($ value '000, all execs)	1,299	3,654	0	0	0	821	21,300	15,863
GPB ($ value '000, CEO)	553	1,682	0	0	0	263	9,555	15,863
GPB ($ value '000, CFO)	150	426	0	0	0	86	2,465	15,863
GPB ($ value '000, all execs) $\parallel GPB > 0$	3,236	5,194	11	492	1,231	3,357	27,000	6,371
Months until evaluation $\parallel GPB > 0$	11	6	0	6	11	14	28	6,371
Panel B: Other metrics used in bonus contracts								
	Mean	SD	p1	p25	Median	p75	p99	N
Number of unique metrics in grant	6.64	5.16	0	3.08	5.25	8.17	26.92	15,863
Stock price metric (% of execs)	0.13	0.32	0	0	0	0	1	15,863
Earnings metric (% of execs)	0.7	0.43	0	0.08	1	1	1	15,863
EPS metric (% of execs)	0.41	0.47	0	0	0	1	1	15,863
Operating metric (% of execs)	0.14	0.32	0	0	0	0	1	15,863

Table 2 continued...

Panel C: Likelihood of deals								
	Mean	SD	p1	p25	Median	p75	p99	N
Any deal	0.21	0.41	0	0	0	0	1	15,863
# Deals (firm-year)	0.3	0.65	0	0	0	0	3	15,863
Any public target deal	0.07	0.26	0	0	0	0	1	15,863
Panel D: Deal characteristics								
	Mean	SD	p1	p25	Median	p75	p99	N
Relative target size	0.06	0.11	0	0	0.02	0.07	0.56	4,989
Acquirer CAR[-3,+1] (%)	0.33	4.09	-9.82	-1.82	0.2	2.36	10.94	4,989
Target CAR[-3,+1] (%)	16.12	22.87	-8.49	0.17	5.91	26.75	91.59	1,343
Combined gains(%)	1.39	4.53	-7.73	-1.06	0.71	3	15.19	1,343
Offer premium (%)	43	31	-6	24	38	55	141	620
Cash deal	0.53	0.5	0	0	1	1	1	4,989
Stock deal	0.04	0.2	0	0	0	0	1	4,989
Mixed deal	0.43	0.49	0	0	0	1	1	4,989
Merger	0.38	0.49	0	0	0	1	1	4,989
Acquisition of assets	0.62	0.49	0	0	1	1	1	4,989
Public target	0.27	0.44	0	0	0	1	1	4,989
Panel E: Deal characteristics—only public targets								
	Mean	SD	p1	p25	Median	p75	p99	N
Relative target size	0.12	0.16	0	0.01	0.04	0.16	0.6	1,343
Acquirer CAR[-3,+1] (%)	0.28	4.64	-9.82	-2.19	0.07	2.59	10.94	1,343
Target CAR[-3,+1] (%)	16.12	22.87	-8.49	0.17	5.91	26.75	91.59	1,343
Combined gains (%)	1.39	4.53	-7.73	-1.06	0.71	3	15.19	1,343
Offer premium (%)	42.87	30.87	-6.11	24	38.04	54.58	141.21	620
Cash deal	0.56	0.5	0	0	1	1	1	1,343
Stock deal	0.06	0.24	0	0	0	0	1	1,343
Mixed deal	0.37	0.48	0	0	0	1	1	1,343

Table 3
Incentives to Grow and Merger Probability

The sample consists of 15797 firm-year observations from 2007 to 2017. The sample reduces to 13597 and 11678 firm-year observations, when adding governance and firm specific control variables, respectively. All specifications are linear probability models and include interacted 2-digit-SIC industry and year fixed effects. The dependent variable in all specifications is *Any Deal* which indicates whether the firm is an acquirer in that year. Model (2) includes governance control variables. Models (3) and (4) include additional firm specific control variables. In Panel A, the main independent variable is growth-promoting bonuses (*GPB (% of executives)*) measured as the fraction of executives who receive growth-promoting bonuses in that year. In Panel B, the main independent variable is the logarithm of the dollar value of the growth promoting bonuses granted to the executives in that year (*GPB (log $ value)*). *Earnings incentives (% of executives)* is the fraction of executives who receive bonuses with earnings-based metrics. *Earnings incentives (log $ value)* is the logarithm of the dollar value of the executives bonuses with earnings-based metrics. CEO delta is log $ value of CEO delta. All variables are defined in the Appendix. The t-statistics are based on robust standard errors clustered at the firm level and are reported in brackets. The notation ***, ** and * denote statistical significance at the 1%, 5% and 10% level, respectively.

Panel A				
	(1)	(2)	(3)	(4)
GPB (% of executives)	0.051***	0.044***	0.043***	0.044***
	[4.78]	[4.00]	[3.66]	[3.77]
Earnings incentives (% of executives)				-0.009
				[-0.76]
CEO delta		0.027***	0.017***	0.017***
		(7.11)	(4.35)	(4.31)
CEO-chairman duality		0.002	-0.004	-0.004
		(0.22)	(-0.41)	(-0.40)
Co-opted board		-0.007	-0.002	-0.001
		(-0.33)	(-0.09)	(-0.04)
CEO tenure		-0.024***	-0.016	-0.017*
		(-2.69)	(-1.63)	(-1.67)
Board size		0.089***	0.003	0.004
		(3.87)	(0.12)	(0.14)
Industry Q			-0.096	-0.096
			(-1.54)	(-1.54)
Cash/assets			-0.019	-0.021
			(-0.47)	(-0.52)
OIBDA/assets			0.189***	0.190***
			(3.18)	(3.19)
Capex/assets			-0.409***	-0.413***
			(-2.78)	(-2.80)
Firm size			0.035***	0.036***
			(6.69)	(6.74)
Firm age			-0.021**	-0.021**
			(-2.34)	(-2.37)
Industry × Year FE	Yes	Yes	Yes	Yes
N	15797	13597	11678	11678
Adjusted-R^2	18.8%	19.2%	21.0%	21.0%

Table 3 continued...

Panel B				
	(1)	(2)	(3)	(4)
GPB (log $ value)	0.004***	0.003***	0.003***	0.003***
	[5.33]	[4.22]	[3.54]	[3.56]
Earnings incentives (log $ value)				-0.000
				[-0.01]
CEO delta		0.027***	0.017***	0.017***
		(7.11)	(4.34)	(4.35)
CEO-chairman duality		0.002	-0.004	-0.004
		(0.23)	(-0.38)	(-0.38)
Co-opted board		-0.006	-0.002	-0.002
		(-0.32)	(-0.08)	(-0.08)
CEO tenure		-0.024***	-0.017*	-0.017
		(-2.69)	(-1.65)	(-1.65)
Board size		0.087***	0.002	0.002
		(3.77)	(0.08)	(0.08)
Industry Q			-0.095	-0.095
			(-1.54)	(-1.54)
Cash/assets			-0.020	-0.020
			(-0.50)	(-0.50)
OIBDA/assets			0.192***	0.192***
			(3.23)	(3.22)
Capex/assets			-0.408***	-0.408***
			(-2.77)	(-2.77)
Firm size			0.035***	0.035***
			(6.63)	(6.62)
Firm age			-0.021**	-0.021**
			(-2.35)	(-2.35)
Industry × Year FE	Yes	Yes	Yes	Yes
N	15797	13597	11678	11678
Adjusted-R^2	18.9%	19.2%	21.0%	21.0%

Table 4
Incentives to Grow and Deal Types

The sample consists of 11678 firm-year observations from 2007 to 2017. All specifications are linear probability models and include interacted 2-digit-SIC industry and year fixed effects. The dependent variable in all specifications is *Any Deal* which indicates whether the firm is an acquirer in that year. All specifications include the following governance and firm specific control variables: CEO compensation delta, CEO-chairman duality indicator, CEO tenure, board size, the extent that the board is co-opted, firm size and age, cash/assets, capex/assets, OIBDA/assets and industry Tobin's Q. The main independent variable is growth-promoting bonuses (*GPB (% of executives)*) measured as the fraction of executives who receive growth-promoting bonuses in that year. In Panel A, the dependent variable is an indicators variable that specifies whether a firm is an acquirer of a target firm that is in the specific relative size bracket (e.g., *Deal (1-2 pct)* equals one if the firm acquires a target firm that its market capitalization is within 1 to 2 % of the sum of the market capitalizations of the bidder and the target). In Panel B, *Cash deal* (*Stock deal*, *Mixed deal*) is an indicator variable that equals one if the deal is paid with cash (stock, combination of cash and stocks). *Within-ind* (*Across-ind*) is an indicator variable that equals one if the target and the acquirer are (not) from the same 2-digit-SIC industry. *public-target* is an indicator variable that equals one if the target firm is publicly traded. All variables are defined in the Appendix. Corresponding t-statistics are reported in brackets. The t-statistics are based on robust standard errors clustered at the firm level. The notation ***, ** and * denote statistical significance at the 1%, 5% and 10% level, respectively.

Panel A: Relative size ((target/(target+acquirer))					
Dependent variable	Deal (< 1 pct)	Deal (1–2 pct)	Deal (2–5 pct)	Deal (5–10 pct)	Deal (10–25 pct)
	(1)	(2)	(3)	(4)	(5)
GPB (% of executives)	0.018**	0.018**	0.005	0.005	0.005
	[2.25]	[2.86]	[0.97]	[1.10]	[1.14]
Governance controls	Yes	Yes	Yes	Yes	Yes
Company controls	Yes	Yes	Yes	Yes	Yes
Industry × Year FE	Yes	Yes	Yes	Yes	Yes
N	11678	11678	11678	11678	11678
Adjusted-R^2	15.5%	9.7%	9.0%	7.2%	8.4%
Panel B: Deal characteristics					
Dependent variable	Cash deal	Mixed deal	Stock deal	Within-ind	Across-ind	Public-target
	(1)	(2)	(3)	(4)	(5)	(6)
GPB (% of executives)	0.028***	0.019**	-0.001	0.028***	0.015	0.019***
	[2.72]	[2.29]	[-0.45]	[2.83]	[1.62]	[2.69]
Governance controls	Yes	Yes	Yes	Yes	Yes	Yes
Company controls	Yes	Yes	Yes	Yes	Yes	Yes
Industry × Year FE	Yes	Yes	Yes	Yes	Yes	Yes
N	11678	11678	11678	11678	11678	11678
Adjusted-R^2	15.7%	13.5%	0.07%	15.2%	15.2%	11.7%

Table 5
The Role of Governance and Cash

The sample consists of 13597 firm-year observations from 2007 to 2017, which reduces to 11678 firm-year observations when adding firm specific control variables. All specifications are linear probability models and include interacted 2-digit-SIC industry and year fixed effects. The dependent in variable Panel A is *Any Deal* which indicates whether the firm is an acquirer in that year. In Panel B, the dependent variables in models (2) and (3) are *Stock deal* and *Cash deal* which are indicator variables that equal one if the firm does a deal that is paid with stock or cash, respectively. Growth-promoting bonuses (*GPB (% of executives)*) is measured as the fraction of executives of the firm who receive growth-promoting bonuses in that year. In Panel A, *CEO-chair duality* is an indicator variable that equals one if the CEO is also the chairman of the board. In Panel B, *Cash/assets* is the lagged cash to assets ratio. The specifications include the following governance and firm specific control variables as indicated: CEO compensation delta, CEO-chairman duality indicator, CEO tenure, board size, the extent that the board is co-opted, firm size and age, cash/assets, capex/assets, OIBDA/assets and industry Tobin's Q. All variables are defined in the Appendix. Corresponding t-statistics are reported in brackets. The t-statistics are based on robust standard errors clustered at the firm level. The notation ***, ** and * denote statistical significance at the 1%, 5% and 10% level, respectively.

Panel A: The role of governance		
Dependent variable: M&A deal indicator		
	(1)	(2)
GPB (% of executives)	0.022	0.018
	[1.56]	[1.24]
GPB (% of executives) × CEO-chairman duality	0.048**	0.052**
	[2.43]	[2.53]
Governance controls	Yes	Yes
Company controls	No	Yes
Industry × Year FE	Yes	Yes
N	13597	11678
Adjusted-R^2	19.3%	21.1%

Panel B: The role of cash			
Dependent variable:	Any deal	Stock deal	Cash deal
	(1)	(2)	(3)
GPB (% of executives)	0.019	-0.001	0.003
	[1.21]	[-0.25]	[0.20]
GPB (% of executives) × Cash/assets	0.161**	-0.002	0.169***
	[2.27]	[-0.16]	[2.78]
Governance controls	Yes	Yes	Yes
Company controls	Yes	Yes	Yes
Industry × Year FE	Yes	Yes	Yes
N	11678	11678	11678
Adjusted-R^2	21.1%	7.0%	15.8%

Table 6
Comparison of Firm Characteristics for Firms with and without GPB

This table reports summary statistics for firm characteristics. "with (without) GPB" indicates firms that do (not) grant GPB contracts to at least one of their executives in that year. The two latter columns reports differences in these variables, both the raw difference and the difference within industry-year. All variables are defined in the Appendix. The sample consists of 12,169 firm-year observations from 2007 to 2017. *, ** and *** indicate statistical significance at the 10%, 5% and 1% levels respectively in the differences in means of the variables.

Firms with and without GPB contracts						
	with GPB (N=4,645)		without GPB (N=7,524)		Differences	
Variable	Mean	Median	Mean	Median	Raw difference	Within-industry-year diff.
Firm size (log assets)	8.511	8.373	8.866	8.780	-0.3549***	0.0112
Firm age	26.897	23.000	28.839	25.000	-1.9412**	-0.3921
Cash/assets	0.171	0.123	0.118	0.071	0.0531***	0.0071
OIBDA/assets	0.144	0.140	0.119	0.110	0.0247***	0.0126**
Sales growth	0.050	0.029	0.032	0.013	0.0179*	0.0119
M/B	4.427	2.844	3.291	2.066	1.1355***	0.4219*
Capex/assets	0.038	0.027	0.042	0.027	-0.0041**	0.0015
CEO delta	5.736	5.792	5.633	5.648	0.103**	-0.0151
CEO-chairman duality	0.483	0.000	0.518	1.000	-0.0351**	-0.0053
Co-opted board	0.442	0.375	0.454	0.417	-0.0123**	-0.0157
Board size	9.640	9.000	9.922	10.000	-0.2813*	0.0377
CEO tenure	7.206	5.422	7.929	6.000	-0.7233**	-0.8008*

Table 7
Exchange-rate Based Sales Shocks, Incentives to Grow and Merger Probability

This table reports results for how exchange-rate based shocks to sales affect the relation between having growth-promoting bonuses (GPB) and firms' M&A activities. The observations are at the firm-year level. The dependent variable is *Any Deal* which indicates whether the firm is an acquirer during the year. The explanatory variable are the following: Growth-promoting bonuses (*GPB (% of executives)*) is measured as the fraction of executives of the firm who receive growth-promoting bonuses in that year, and *GPB (log $ value)* is the logarithm of the dollar value of the growth promoting bonuses granted to the executives in that year. *Exporter* is an indicator whether the firm is an exporter, based on reporting foreign sales in the Compustat customer-segment file. *USD exchange-rate shock* is an indicator for whether there was a larger-than 5% year-to-year *drop* in the Nominal Broad U.S. Dollar Index (from the beginning of the first fiscal month of the previous year to the first fiscal month of the current year); other things equal, a drop in the relative value of the U.S. dollar tends to raise the USD-denominated sales of exporting firms. The main variable of interest is the triple-interaction between growth-promoting bonuses, being an exporter, and exchange-rate-driven shock to the relative value of the U.S. dollar. The regression includes interacted 2-digit-SIC industry and year fixed effects as well as time (year-month of the firm's fiscal year end) fixed effects. The uninteracted measure for *USD exchange-rate shock* is absorbed by the time fixed effects and this coefficient is not reported. We additionally include the following governance and firm specific control variables (lagged): CEO compensation delta, CEO-chairman duality indicator, CEO tenure, board size, the extent that the board is co-opted, firm size and age, cash/assets, capex/assets, OIBDA/assets and industry Tobin's Q. All variables are defined in the Appendix. Corresponding t-statistics are reported in brackets. The t-statistics are based on robust standard errors clustered at the firm level. The notation ***, ** and * denote statistical significance at the 1%, 5% and 10% level, respectively.

Dependent variable: M&A deal indicator		
	(1)	(2)
GPB (% of executives)	0.024*	
	(1.65)	
GPB (log $ value)		0.002*
		(1.82)
Exporter	0.028*	0.028*
	(1.73)	(1.74)
GPB (% of executives) × Exporter	0.020	
	(0.88)	
GPB (log $ value) × Exporter		0.001
		(0.81)
GPB (% of executives) × USD exchange-rate shock	0.048*	
	(1.86)	
GPB (log $ value) × USD exchange-rate shock		0.004**
		(2.10)
Exporter × USD exchange-rate shock	0.052**	0.056**
	(2.07)	(2.22)
GPB (% of executives) × Exporter × USD exchange-rate shock	-0.090**	
	(-2.36)	
GPB (log $ value) × Exporter × USD exchange-rate shock		-0.007***
		(-2.61)
Governance controls	Yes	Yes
Company controls	Yes	Yes
Industry × Year FE	Yes	Yes
Time (Year-by-Fiscal End Month) FE	Yes	Yes
N	11,677	11,677
Adjusted-R^2	22.3%	22.3%

Table 8
Incentives to Grow and Acquirer Returns

This table reports estimates from OLS regressions that examine the acquirer returns in takeovers. The sample consists of takeovers announced between 2007 to 2017 involving acquirer and targets that were both publicly listed U.S. firms. The sample consists of 1271 observations. The sample reduces to 1188 and 957 observations, when adding governance and firm specific control variables, respectively. The dependent variable is the market reaction around the takeover announcement for the acquirer which is computed as the acquirer's 5-day cumulative dollar abnormal returns around the takeover announcement (CAR[-3,+1]). Model (2) includes the following deal characteristics as control variables: cash deal indicator, mixed deal indicator, the logarithm of the dollar value of the transaction and the within-industry indicator. Model (3) includes the additional following governance control variables: CEO compensation delta, CEO-chairman duality indicator, CEO tenure, board size, the extent that the board is co-opted. Model (4) includes the additional following firm specific control variables: firm size and age, cash/assets, capex/assets, OIBDA/assets and industry Tobin's Q. In Panel A, the main independent variable is growth-promoting bonuses (*GPB (% of executives)*) measured as the fraction of executives who receive growth-promoting bonuses in that year. In Panel B, the main independent variable is the logarithm of the dollar value of the growth promoting bonuses granted to the executives in that year (*GPB (log $ value)*). All specifications include 2-digit-SIC industry and year fixed effects. All variables are defined in the Appendix. Corresponding t-statistics are reported in brackets. The t-statistics are based on robust standard errors clustered at the bidder firm level. The notation ***, ** and * denote statistical significance at the 1%, 5% and 10% level, respectively.

Panel A:				
Dependent variable: Acquirer CAR[-3,+1]				
	(1)	(2)	(3)	(4)
GPB (% of executives)	-1.186***	-1.160***	-1.097***	-0.965***
	[-3.94]	[-3.83]	[-3.38]	[-2.76]
Deal controls	No	Yes	Yes	Yes
Governance controls	No	No	Yes	Yes
Company controls	No	No	No	Yes
Year FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
N	1271	1271	1188	957
Adjusted-R^2	8.2%	9.6%	11.5%	14.6%
Panel B:				
Dependent variable: Acquirer CAR[-3,+1]				
	(1)	(2)	(3)	(4)
GPB (log $ value)	-0.077***	-0.074***	-0.069***	-0.057**
	[-3.94]	[-3.75]	[-3.35]	[-2.53]
Deal controls	No	Yes	Yes	Yes
Governance controls	No	No	Yes	Yes
Company controls	No	No	No	Yes
Year FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
N	1271	1271	1188	957
Adjusted-R^2	8.1%	9.5%	11.4%	14.4%

Table 9
Incentives to Grow, Offer Premium and Target Returns

This table reports estimates from OLS regressions that examine the offer premium and target returns in takeovers. The sample consists of takeovers announced between 2007 to 2017 involving acquirer and targets that were both publicly listed U.S. firms. In Panel A, to be able to estimate the takeover premium we restrict the sample to deals in which the entire target firm is acquired in the deal. In Panel A the sample consists of 602 observations. The sample reduces to 556 and 447 observations, when adding governance and firm specific control variables, respectively. In Panel B the sample consists of 1271 observations. The sample reduces to 1188 and 957 observations, when adding governance and firm specific control variables, respectively. In Panel A, the dependent variable is the *Offer premium*, estimated as the initial offer price per share divided by the target's stock price 50 trading days before the takeover announcement. In Panel B, the dependent variable is the the market reaction around the takeover announcement for the target which is computed as the target's 5-day cumulative dollar abnormal returns around the takeover announcement (CAR[-3,+1]). Model (2) includes the following deal characteristics as control variables: cash deal indicator, mixed deal indicator, the logarithm of the dollar value of the transaction and the within-industry indicator. Model (3) includes the additional following governance control variables: CEO compensation delta, CEO-chairman duality indicator, CEO tenure, board size, the extent that the board is co-opted. Model (4) includes the additional following firm specific control variables: firm size and age, cash/assets, capex/assets, OIBDA/assets and industry Tobin's Q. The main independent variable is growth-promoting bonuses (*GPB (% of executives)*) measured as the fraction of executives who receive growth-promoting bonuses in that year. All specifications include 2-digit-SIC industry and year fixed effects. All variables are defined in the Appendix. Corresponding t-statistics are reported in brackets. The t-statistics are based on robust standard errors clustered at the target firm level. The notation ***, ** and * denote statistical significance at the 1%, 5% and 10% level, respectively.

Panel A:				
Dependent variable: Offer premium				
	(1)	(2)	(3)	(4)
GPB (% of executives)	5.226*	4.901*	3.297	3.682
	[1.81]	[1.70]	[1.09]	[1.05]
Deal controls	No	Yes	Yes	Yes
Governance controls	No	No	Yes	Yes
Company controls	No	No	No	Yes
Year FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
N	602	602	556	447
Adjusted-R^2	23.9%	28.0%	29.8%	30.4%
Panel B:				
Dependent variable: Target CAR[-3,+1]				
	(1)	(2)	(3)	(4)
GPB (% of executives)	3.184**	2.869*	2.290	1.794
	[2.01]	[1.87]	[1.40]	[0.97]
Deal controls	No	Yes	Yes	Yes
Governance controls	No	No	Yes	Yes
Company controls	No	No	No	Yes
Year FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
N	1271	1271	1188	957
Adjusted-R^2	10.9%	14.2%	14.3%	15.3%

Table 10
Incentives to Grow and Wealth Gains from Takeovers

This table reports estimates from OLS regressions that examine wealth gains in takeovers. The sample consists of takeovers announced between 2007 to 2017 involving acquirer and targets that were both publicly listed U.S. firms. The sample consists of 1271 observations. The sample reduces to 1188 and 957 observations, when adding governance and firm specific control variables, respectively. The dependent variable is the combined gain of the acquirer and target around the takeover announcement which is computed as the sum of the bidder and target's 5-day cumulative dollar abnormal returns around the takeover announcement (CAR[-3,+1]) divided by the sum of the acquirer 's and target's market capitalizations 50 trading days before the takeover announcement. Model (2) includes the following deal characteristics as control variables: cash deal indicator, mixed deal indicator, the logarithm of the dollar value of the transaction and the within-industry indicator. Model (3) includes the additional following governance control variables: CEO compensation delta, CEO-chairman duality indicator, CEO tenure, board size, the extent that the board is co-opted. Model (4) includes the additional following firm specific control variables: firm size and age, cash/assets, capex/assets, OIBDA/assets and industry Tobin's Q. The main independent variable is growth-promoting bonuses (*GPB (% of executives)*) measured as the fraction of executives who receive growth-promoting bonuses in that year. All specifications include 2-digit-SIC industry and year fixed effects. All variables are defined in the Appendix. Corresponding t-statistics are reported in brackets. The t-statistics are based on robust standard errors clustered at the bidder firm level. The notation ***, ** and * denote statistical significance at the 1%, 5% and 10% level, respectively.

Dependent variable: Combined Gains				
	(1)	(2)	(3)	(4)
GPB (% of executives)	-0.780***	-0.806***	-0.748**	-0.579*
	[-2.67]	[-2.82]	[-2.47]	[-1.76]
Deal controls	No	Yes	Yes	Yes
Governance controls	No	No	Yes	Yes
Company controls	No	No	No	Yes
Year FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
N	1271	1271	1188	957
Adjusted-R^2	9.4%	11.8%	12.8%	16.8%

Table 11
Incentives to Grow and Gains to Executives from M&A Deals

This table reports the payout for growth-promoting bonus grants (GPB) to executives. The sample consists of Incentive Lab firms that completed an M&A in the period between 2007 and 2017. GPB grants are defined as grants whose payment is made contingent upon meeting a threshold in one of the following metrics: sales, market share, bookings, production, book value, net asset value or acquisitions. GPB payout (exec.) is the estimated payout to the executive from his GPB contract. GPB payout (firm) is the sum of GPB payout to the top executives in the firm. Realized payout is estimated using the the first realized sales after the completion of the deal reported by Compustat and the threshold, target and maximum value of the GPB contracts. Counterfactual payout is estimated using counterfactual sales (i.e., what would have been in the absence of the merger) and the threshold, target and maximum value of the GPB contracts. The sample in Panel A includes acquirers in deals with both publicly traded and privately held target firms. In Panel A, to estimate the counterfactual sales of the acquirer, we subtract the weighted target's sales (weighted by the fraction of the year remaining in the fiscal from the date the deal is completed) from the first realized sales after deal completion. We estimate target's sales by using the median Enterprise Value (EV) to sales multiple for the target firms' 2-digit-SIC industry multiplied by the EV of the target firm. The sample in Panel B includes acquirers in deals only with publicly traded targets. In Panel B, to estimate the coutnerfactual sales of the acquirer, we subtract the weighted target's sales (weighted by the fraction of the year remaining in the fiscal from the date the deal is completed) from the first realized sales after deal completion. We estimate target's sales by the actual pre-merger target sales reported in Compustat before the deal completion. The Sample in Panel C includes includes acquirers in deals with both publicly traded and privately held target firms. However, we limit the sample to those executives that meet their GPB threshold using the realized sales but miss it using the counterfactual sales (i.e, meet the threshold only due to the merger). Lost compensation is the estimated expected present value of the lost compensation associated with the potential forced turnover of the executive following missing his GPB contract's thresholds. The present value is estimated assuming an annuity (discount rate=10% and N=the difference between the mean of tenure of executives with longer tenure and the executive's tenure). Marginal likelihood of forced turnover if GPB threshold is missed is assumed 1.5% (see Bennett et al. 2017). t-statistics are computed for one-tailed test of the mean against 0. ***, ** and * indicate statistical significance at the 1%, 5% and 10% levels.

Panel A: Public and private target firms					
	Realized Payout	Counterfactual Payout			
	Mean($)	Mean($)	N	Difference($)	t-stat
GPB payout (exec.)	527,902	445,903	2628	81,999	3.03***
GPB payout (firm)	2,157,585	1,822,449	643	335,136	2.51***
Panel B: Only public targets					
	Realized Payout	Counterfactual Payout			
	Mean($)	Mean($)	N	Difference($)	t-stat
GPB payout (exec.)	699,818	488,071	506	211,747	1.55*
GPB payout (firm)	3,000,913	2,092,916	118	907,997	1.33*
Panel C: If meets threshold only due to the merger					
	Realized Payout	Counterfactual Payout			
	Mean($)	Mean($)	N	Difference($)	t-stat
GPB payout (exec.)	1,323,067	578,269	260	744,797	2.79***
Lost compensation (exec.)	0	-307,558	260	307,558	

Table 12
Ex-post Non-equity Incentive Payouts

This table reports results for "ex-post" bonus payouts in the form of non-equity incentives. The dependent variable is the natural logarithm of (one plus) the total value of non-equity incentive compensation awarded to the top-5 named executive officers in the firm. The independent variables are measures for growth-promoting bonuses (*GPB (% of executives)* and *GPB (log $ value)*), the total size of M&A deals done in a given year (measured as the sum of target/(target+acquirer) across all deals), and the interaction of these two variables. The observations are at the firm-year level. All specifications include the same executive-, firm-, and governance control variables as in Table 3 as well as interacted 2-digit-SIC industry and year fixed effects. All variables are defined in the Appendix. Corresponding t-statistics are reported in brackets. The t-statistics are based on robust standard errors clustered at the bidder firm level. The notation ***, ** and * denote statistical significance at the 1%, 5% and 10% level, respectively.

Dependent variable: Log of Non-equity incentive compensation		
	(1)	(2)
Deal size (annual)	-0.282	-0.329
	(-0.67)	(-0.78)
GPB (% of executives)	0.547***	
	(5.29)	
GPB (log $ value)		0.038***
		(4.79)
Total Deal Size (annual) × GPB (% of executives)	0.935*	
	(1.80)	
Total Deal Size (annual) × GPB (log $ value)		0.079**
		(2.02)
Executive controls	Yes	Yes
Governance controls	Yes	Yes
Company controls	Yes	Yes
Year-by-Industry FE	Yes	Yes
N	11675	11675
Adjusted-R^2	18.5%	18.4%

Table A1
Summary Statistics for Control Variables

This table reports descriptive statistics for the control variables used in our study of growth-promoting bonuses. The sample consists of Compustat firms for the period between 2007 to 2017. All variables are lagged. All variables are defined in the Appendix.

	Mean	SD	p1	p25	Median	p75	p99	N
CEO delta	857	1,749	4	113	304	774	10,250	15,080
CEO-chair duality	0.47	0.5	0	0	0	1	1	14,860
Co-opted board (%)	0.45	0.32	0	0.18	0.4	0.7	1	14,300
CEO tenure	7.64	6.75	0.5	2.81	5.67	10.22	32.02	14,860
Board size	9.88	2.15	5	8	10	11	15	14,669
Industry Q	2	0.71	1.03	1.42	1.87	2.42	4.05	14,413
Cash/assets	0.13	0.14	0	0.03	0.08	0.19	0.64	14,414
OIBDA/assets	0.13	0.09	-0.09	0.07	0.12	0.17	0.39	13,641
Capex/assets	0.04	0.04	0	0.01	0.03	0.05	0.22	14,390
Firm size	25,408	64,975	232	2,467	6,424	18,629	496,943	14,414
Firm age	30	17	2	16	26	46	60	15,863

Table A2
Exchange Rates and Sales for Exporters

This table reports results for the relation between USD exchange rates and sales. The sample is at the firm-level. The dependent variable is the change in sales, normalized by lagged assets. The first explanatory variable, *Exporter*, is an indicator whether the firm is an exporter, based on reporting foreign sales in the Compustat customer-segment file. The second explanatory variable, Δ *USD Strength*, is the percent year-to-year change in the Nominal Broad U.S. Dollar Index from the beginning of the first fiscal month of the previous year to the first fiscal month of the current year. The main explanatory variable of interest is the interaction between these two variables which studies the extent to which exporters' sales are differentially affected by the strength of the USD exchange rate. The regression includes industry-by-year and and time (year-month of the firm's fiscal year end) fixed effects. Note that the uninteracted Δ *USD Strength* is absorbed by the time fixed effects and not reported. We additionally include the following governance and firm specific control variables (lagged): CEO compensation delta, CEO-chairman duality indicator, CEO tenure, board size, the extent that the board is co-opted, firm size and age, cash/assets, capex/assets, OIBDA/assets and industry Tobin's Q. All variables are defined in the Appendix. Corresponding t-statistics are reported in brackets. The t-statistics are based on robust standard errors clustered at the firm level. The notation ***, ** and * denote statistical significance at the 1%, 5% and 10% level, respectively.

Dependent variable: $\Delta Sales/Assets_{t-1}$	
	(1)
Exporter	-0.007
	(-1.64)
Exporter $\times$ ΔUSD Strength (%)	-0.130***
	(-2.65)
Governance controls	Yes
Company controls	Yes
Industry $\times$ Year FE	Yes
Time (Year-by-Fiscal End Month) FE	Yes
N	11,677
Adjusted-R^2	38.3%

Table A3
Incentives to Grow and Acquirer Returns—Including Deal with Private Targets

This table reports estimates from OLS regressions that examine the acquirer returns in takeovers. The sample consists of takeovers announced between 2007 to 2017 involving acquirer and targets that were the the acquirer is publicly listed U.S. firms but the target can be either publicly traded U.S firm or privately held US firm. The sample consists of 4386 observations. The sample reduces to 4105 and 3323 observations, when adding governance and firm specific control variables, respectively. The dependent variable is the market reaction around the takeover announcement for the acquirer which is computed as the acquirer's 5-day cumulative dollar abnormal returns around the takeover announcement (CAR[-3,+1]). Model (2) includes the following deal characteristics as control variables: cash deal indicator, mixed deal indicator, the logarithm of the dollar value of the transaction and the within-industry indicator. Model (3) includes the additional following governance control variables: CEO compensation delta, CEO-chairman duality indicator, CEO tenure, board size, the extent that the board is co-opted. Model (4) includes the additional following firm specific control variables: firm size and age, cash/assets, capex/assets, OIBDA/assets and industry Tobin's Q. In Panel A, the main independent variable is growth-promoting bonuses (*GPB (% of executives)*) measured as the fraction of executives who receive growth-promoting bonuses in that year. In Panel B, the main independent variable is the logarithm of the dollar value of the growth promoting bonuses granted to the executives in that year (*GPB (log $ value)*). All specifications include 2-digit-SIC industry and year fixed effects. All variables are defined in the Appendix. Corresponding t-statistics are reported in brackets. The t-statistics are based on robust standard errors clustered at the bidder firm level. The notation ***, ** and * denote statistical significance at the 1%, 5% and 10% level, respectively.

Panel A:				
Dependent variable: Acquirer CAR[-3,+1]				
	(1)	(2)	(3)	(4)
GPB (% of executives)	-0.493***	-0.497***	-0.516***	-0.358**
	[-3.23]	[-3.28]	[-3.30]	[-2.08]
Deal controls	No	Yes	Yes	Yes
Governance controls	No	No	Yes	Yes
Company controls	No	No	No	Yes
Year FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
N	4386	4386	4105	3323
Adjusted-R^2	3.4%	3.6%	4.4%	6.5%
Panel B:				
Dependent variable: Acquirer CAR[-3,+1]				
	(1)	(2)	(3)	(4)
GPB (log $ value)	-0.035***	-0.035***	-0.037***	-0.022**
	[-3.56]	[-3.59]	[-3.64]	[-1.98]
Deal controls	No	Yes	Yes	Yes
Governance controls	No	No	Yes	Yes
Company controls	No	No	No	Yes
Year FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
N	4386	4386	4105	3323
Adjusted-R^2	3.5%	3.6%	4.5%	6.4%