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Article

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SHARE BUYBACKS AND EMPLOYEE STOCK OPTIONS

BOLKO HOHAUS*

Introduction

The effectiveness of stock option plans has been part of a debate for some decades (see e.g. Huddart 1994) and there have been extensive discussions over how options should be valued (Core and Guay 2002). Limited research, however, has been done into whether the issuance of stock options and the buyback of shares are creating an incentive for management to use both of those methods excessively, as it is one alternative way of paying employees, including top management. Bens (2003) has demonstrated that executives use buybacks to manage stock dilution. The purpose of this paper is to introduce a simple tool to measure the size of this effect.

As companies disclose their stock option plans in their quarterly reports, investors are in theory able to compile information on the issuance of options. However, in practice, important information such as strike prices, vesting periods and the exact distribution of options among employees is either unavailable or very difficult to obtain. This contrasts with the easily accessible information on direct labour costs such as salaries. As options eventually create additional shares once they are exercised, the most visible sign of how many options a company has distributed actually comes from the increase in its share count over time. We argue that share buybacks, often purported as shareholder friendly, can help companies to offset the dilution, masking the original option issuance.

This gives companies an incentive to pay employees more in options instead of salaries, as latter are part

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of operating expenses. *Ceteris paribus* this is a way of increasing reported operating income.

Therefore, we define the yield generated by the company to offset shareholder dilution as the 'free cash flow (FCF) yield to employees'. We do argue that traditional measures, such as FCF yields, do not take into account that a significant portion of the free cash flow generated will actually never be returned to shareholders, but simply used to pay for restricted stock unit or option dilution.

Data analysis method

We quantify the effect under investigation by calculating the effect for the hundred largest non-financial companies included in the US Standard & Poor's 500 index. The data we use stem from Bloomberg. Those numbers are sourced from the financial reports of the companies in question. The period under observation is the last five reported financial years. This is long enough to get a number smoothed over years, but not too long to avoid looking at regime changes if, for example, a company's business is changing. Over this period we firstly measure the change in the number of outstanding shares. Secondly, we take the capital decrease stemming from share buybacks and reduce it by the capital increase from issuing shares, stock options or restricted stock units to obtain a net number.

In the next step we calculate what reduction in share count the net capital decrease should have created over the period in question. As we do not know the exact timing of the share buybacks, we assume that they happen linearly over time within each year. We cross-checked our calculation with shorter periods and obtain similar results, and therefore do not believe that the length of the period determines the result.

We refer to the delta between effective share count decrease and that which should have been created as the ineffective buyback, which can be quantified in US dollars. As buybacks are financed out of the free cash flows generated by the company, we set the ineffective buyback in relation to the market capitalization of a



company, and define this number as the free cash flow yield to employees (*FCF yield to employees*).

Using traditional numbers such as free cash flow yields to assess the attractiveness of a company implicitly assumes that this free cash flow is channelled back to shareholders, for example by dividends or by share count reducing buybacks. This does not make it possible to differentiate between companies who use those means to actually pay for the shares created by options issued to employees; and those companies who do not. Investors can therefore adjust their valuation metrics accordingly by reducing the FCF yield by the portion paid out to employees.

Furthermore, we think that the usage of this method may signal companies coming under growth stress eventually. This way, the FCF yield to employees may also become an important compliance monitoring tool.

Results

An average of 10.8 percent of the overall free cash flow generated by those companies is used to offset dilution (see Table 1). The average FCF yield to employees is 0.6 percent which is – based on current market capitalizations – equivalent to roughly 150 billion US dollars. This amount gets channelled back to employees out of shareholders pockets *via* buybacks. As visibility on the details of option programs is usually quite low and information is difficult to find for investors, the question of whether management takes advantage of those programmes also arises. This is all the more true as an important portion of options usually gets issued to the top management and the C-Suite.

In this sense, we argue that we are addressing an important issue in financial accounting. There is also the point that the share buyback created from dilution can help to lower operating expenses as a larger part of the pay package comes in the form of options and stock units. This is a fully legal exercise, but changes the reported operating income number. In our sample, the non-effective buyback actually reaches 4.8 percent of operating expenses as a median. But certain companies score as high as 40 percent. Here a relevant

Table 1

Free cash flow yield analysis for the largest 100 non-financial companies in the S&P 500

| % of FCF yield going to employees (median) | FCF yield to employees (median, in %) | Non effective buyback as % of operating expenses (median) | Payout to employees <i>via</i> share buybacks (billion US dollars) |
|--|---------------------------------------|---|--|
| 10.8 | 0.6 | 4.8 | 146.7 |

Source: Own calculation.

concern is that current financial reporting of operating income trends may be significantly distorted, as salaries are artificially depressed with options accounting for a very large part of the pay package.

Future research

This article attempts to lay the foundation for future research by introducing a concept. Therefore we do not investigate all possible aspects in this paper, but leave that for the future. One of the first interesting topics to investigate over time, in our view, could be how this measure differs across sectors. Our sample size is too small to judge this fully, but the subsample of technology companies is having significantly higher free cash flows to employees than the average company. Secondly, we think that an international comparison makes sense. As the concept of stock options is predominantly used in the United States, we assume that the yield to employees is lower internationally. Finally, it would be interesting to study this effect over time and if there is any predictability of forward returns.

Conclusion

This paper has introduced an easy to use metrics for shareholders to investigate if a company uses a significant portion of the free cash flow generated to buy back shares stemming from option issuance to employees. Therefore, we argue that traditional valuation metrics such as free cash flow yields are distorted as they overlook this aspect. We defined free cash flow yield to employees as the portion that should be deducted from the FCF yield to arrive to a clean number.

Our sample analysis of the top hundred non-financial companies has demonstrated that the amount of free cash flow used to offset dilution is considerable and reaches 0.6 percent of the market capitalization on av-

erage, equivalent to 150 billion US dollars annually at current stock market prices. For larger companies like those that we looked at, cash constraints should be no concern on average, and hence in contrast to smaller companies, those firms should not have the need to use options instead of cash. We argue that an information asymmetry exists in the market: the option issuance is typically very intransparent to outsiders. This creates an incentive for the insiders, the company management, to use options excessively as they make true employee costs less visible. As top management is part of the employee base, it could well be also the case that this leads to higher executive pay, *ceteris paribus*.

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