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The valuation of management packages

Key elements of investment capital issues, management packages are complex to appraise. Their value depends on the criteria specific to LBOs, but also the personal situation of the manager.

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It looks like a simple option, with the colour of a simple option, but does not evolve like a simple option. Management packages have developed with the increased significance of investment capital: financial shareholders expect managers to quickly increase the value of the companies in which they have invested. They have thus created a system associating key managers with the capital and have gradually inspired industrial groups, convinced that having managers share in the creation of value of the companies that they run needed to have a positive impact on their performance and ultimately on their value.
In order for the mechanism to work, the beneficiary (the manager) must feel like he is paying the right price for the package granted to him, and, symmetrically, the company that issues the package must ensure that this package does not adversely affect the other shareholders, hence the debates on the measurement of management package values.

What these management packages have in common is that they are based on complex financial instruments, most often treated as option instruments in one form or another.

1. Management packages of special contracts

The concept of "management package" is vague and covers a mixed set of practices with regard to profit-sharing or association with the creation of value in companies that, in most cases, are the subject of an acquisition. What these management packages have in common is that they are based on complex financial instruments, most often treated as option instruments in one form or another, with objectives that can vary: alignment of the interests of the executives with those of the shareholders, loyalty of executives through “golden handcuffs”, or even tax optimisation of compensation. Despite this multiplicity of instruments, two objective criteria make it possible to understand the main characteristics of management packages in the traditional context of leverage buyouts (LBOs).

1.1. The first criterion relates to the very nature of the LBO, as it defines its objectives. As part of a primary LBO, executives are associated with the financing package through mainly option instruments and typically do not hold any shares in the acquired company. As part of the secondary buyout that follows, these same executives are encouraged to reinvest a portion of their gains into shares so that the influence of option instruments, in the hopes of gains, declines. Lastly, as part of a tertiary LBO, the main objective is the company’s takeover by its executives so that they are logically driven to reinvest all of their gains into shares and that option instruments represent more than just a supplement of the management package.

1.2. The second criterion refers to the size of the acquired company. When it is large, direct investment by executives represents only a small fraction of the capital of the acquired company, and the economic risk incurred on such an investment is generally moderate. In such a context, if the transaction proves be a success, option instruments are the only ones that will allow executives to collect a significant share of the gains with great leverage on their initial investment.
All in all, depending on the goals of the parties and the profile of the company in question (size, activity, phase of development, geography of share ownership, etc.), management packages can be diametrically opposed in nature: virtually guaranteed compensation or, on the contrary, a true lottery ticket. Thus, in the past, certain plans, designed for purely tax reasons, involved selling to managers the securities of an ad hoc subsidiary for a symbolic price, with redemption conditions that seemingly depended on future parameters but were, in fact, completely known at the outset, so that these managers were assured of ultimately obtaining a predetermined income. In contrast, the executive who has a management package within a start-up created to develop innovative technology still in the research phase may end up holding a lottery ticket if the probability of the project's success is low; for this executive, the mathematical expectation of gain is indeed very limited, even if the gain may be very significant in case of success.

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2. Special options

Combining option instruments and shares, management packages are often treated as the simple financial options that are well known on the markets, for which sophisticated analysis and valuation methods are available. The shortcut is then quickly taken, which involves appraising the management package using option valuation models (Black & Scholes formula, for example), whose implementation is already relatively complex, even though the valued financial options are ultimately quite simple. Unfortunately, the available valuation models, at least the most famous ones, are based on relatively restrictive conditions of use (no transaction costs or permanent possibility of hedging of the risk, for example), certainly permissible in the case of simple options, but rarely verified in management packages.
There is thus great temptation to "tweak" the models to adapt them to the valuation context. This temptation is even greater, given that the regulator sometimes urges you to do so, such as the accounting regulator for the production of consolidated accounts of listed companies under the IFRS standards. The estimation of the value of stock options, as recommended by IFRS standards, perfectly illustrates the reason: beneficiaries of stock options may not transfer their right and can only generate any gain by exercising the stock options and selling the obtained shares. Stock options are therefore not simple financial options, explaining why, unlike simple options, stock options are overwhelmingly exercised well before their maturity. However, rather than recommending the construction of specific models for valuation of stock options, the standard-setter explicitly proposes using the models constructed for simple options. Thus, in order to solve the problem mentioned above, he outlines a simple approach that involves arbitrarily reducing the lifetime of the stock option. Unfortunately, although the solution proposed by the standard-setter is simple, the consequences of such an approximation are far from neutral, with an impact that can vary considerably depending on the characteristics of the stock options and those of the underlying shares.

3. Hypersensitivity to parameters

"Tweaking" the available valuation models would have fewer consequences if the value of the options were not so explosive in nature. A slight variation in the valuation model's parameters leads to a significant variation in the value of the option; this sensitivity is the result of "optional leveraging" specific to options and represents all the appeal of option instruments in management packages! Unfortunately, this high sensitivity of the models necessarily implies a significant risk of error in the valuation of option instruments. This risk is even greater here, because, by design, management packages are based on the stacking of leverage:

– Operational leverage (particular to any corporate takeover entrepreneur)
– Financial leverage (particular to LBOs)
– Option leverage (particular to options)

This triple leverage is the source of the explosive nature of management packages: from a modest initial investment, the possible gain can be increased without eliminating or reducing the risk associated with such gain expectations. This sensitivity would be bearable if, at the same time, there were a certain confidence in the valuation models used...and in the parameters used for the valuation. However, as shown above, there are no off-the-rack models available to appraise management packages. Valuation models must therefore be custom-developed each time. At the same time, the assumptions introduced in these models may themselves be the topic of endless discussions between the parties, as they are often based on subjective estimates.

The most emblematic of these assumptions is the future volatility of the asset; this involves an underlying assumption in option valuation models, without there necessarily being a commonly accepted approach to appraise it. Volatility can first be observed historically. This then raises the matter of the observation period (three months, two years, three years? A duration identical to the option's lifetime?) This also raises the issue of knowing whether the observation of past phenomena is a good indicator of the future; volatility can also be estimated through the analysis of implied volatilities observed on listed options. This then raises the issue of comparability of the valued option with the observed option, the liquidity of the observed options, and the impact of this liquidity on the implied volatility, etc. All of these are issues not resolved by financial theory and for which there are no established market practices.

As far as management packages are concerned, this sensitivity of value to volatility is exacerbated by some of their characteristics that differentiate them from simple financial options: very long lifetimes, the lack of total or partial transferability, an underlying instrument that is not regularly measured, etc. Of course, there are financial options of more than four years, particularly bonds issued by listed companies on their own shares (for example, share subscription or purchase warrants); traditional valuation models poorly perceive the risk/return pair of the underlying instrument over a long period, not to mention that the longer the option's lifetime, the greater the sensitivity of its estimated value to volatility. Finally, most management packages are built on the expected return on securities of unlisted companies, or even on anticipated economic performance for which there is no probative measurement of future volatility.

4. The manager, a special investor

To all of these difficulties, a final one can be added: the manager is not a professional financial investor, armed with complex market tools, who manages a diversified asset base by arbitrating between different asset classes in order to optimise its return-risk pair. The special position of the manager can lead to numerous biases in the perception of the product that is sold, for both subjective and objective reasons.

In the first place, the manager is faced with a single product, generally without the possibility of arbitrage, i.e. with no ability to sell the product when he wishes to or hedge his risk on the market). However, as shown by the financial markets on which exchanges only rely on the opposing positions of various players (at each price observed on a market, there were as many buyers as there were sellers), each investor has his own issues based on his cash flow, his investment horizon, his arbitrages, or his personal analysis at a given moment. Similarly, the valuation of a management package will vary according to the personal

situations of each person, a phenomenon intensified by the specific characteristics of product offered to the managers.
To illustrate this point, imagine a company that decides to offer its key executives a red 2CV, with the inability to sell it before four years. Between the manager who already has a 2CV of the same type, which he can sell, immediately collecting an amount in cash, in order to replace it with the one received from his employer, and the manager who hates cars, has no driver's license, and must rent a parking space, the value of this management package, albeit a bit particular, is clearly different depending on the profile of the manager. As far as a financial product is concerned, the personal asset situation is, as will be seen, a key element of the valuation for an individual.
Management packages, the objective of which is to associate managers with the creation of value of the company that employs them, are generally based on securities of this same company. This characteristic has a dual consequence on the manager's estimate of the value of the product offered to him. The first, clearly negative, comes from the fact that an executive whose entire labour power and the bulk of whose assets are invested in the company that employs him will hesitate before acquiring option instruments pertaining to securities of this same company. The reason is the concentration of his asset base, which makes him incur an additional risk in relation to any financial investor who has the possibility of maintaining a well-diversified portfolio of assets. The second consequence lies in a possible asymmetry of information. Thus, an executive convinced that his company is undervalued, because the overall market is uninformed or doubtful (wrongly, according to him) about the relevance of the implemented strategy, will certainly have a big appetite for an option product based on the stock price of his company.

5. How is a management package valued?
Faced with multi-form management packages, which are typically based on complex legal documentation, one can quickly feel powerless. Conducting a rigorous analysis process is then essential. As the devil is in the details, the process begins with the analysis of the various contracts describing the transaction overall in order to understand the package and put it into context. This analysis should involve an examination of the risk borne by the management package (particularly the change in this risk based on that of the financial debt incurred by the target), but also the possible gains based on possible foreseeable scenarios or the constraints placed on the executives.
Faced with complex options and models unsuitable for appraising them, the valuer must also master the underlying financial theory. The valuer must be fully familiar with the temperature and pressure conditions of the models that he uses, because he will push them to the limits of their conditions of use in order to adapt them to the situation that he observes. At the same time, he must also demonstrate rigour and intellectual honesty in his approach and in the presentation of the results of his work. Thus, he should be perfectly transparent on the models that he uses and their basic conditions of use, but also on the adaptations that he had to make in order to appraise the management package.
We will not conclude by giving a simple, practical methodological kit for valuation of management packages or some tips and tricks to easily circumvent the difficulties mentioned above... and we are very sorry! As it is a complex subject, constantly evolving, at the crossroads of financial, human resources, accounting, tax, and other issues, there is unfortunately no betting system for appraising management packages. More so than in the other contexts, it is the approach and the experience of the valuer to analyse, understand, and explain his opinion on the value to an unarmed audience that will make the difference.