How Important Are the Tax and Accounting Determinants of Corporate ESO Strategy?

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1. A review of corporate and employee decisions related to ESO

An employee share option (ESO) is a complex financial instrument, characterized by high leverage and risk-sensitivity, features usually reserved for highly professional investors, which is used for employee compensation. Many accounting, taxation, agency, valuation and financial management aspects make it even more difficult to analyze. As a result, both firms willing to grant them and their potential recipients face intricate decision problems. On the corporate side, the advantages of the time management of cash flow, possible tax benefits and the prospect of attracting talented employees must be weighed against their accounting cost, a need for dilution management, costs of a potential non-exercisability and the nature of agency problems. On the recipient side, the exercise probability and stock appreciation prospects, the payoff size, the amount of tax on exercise and capital gains taxation must be evaluated in the context of individual time and risk preferences. More broadly, both firms and their employees face multiple choices in their share-based compensation decisions. First, there is a choice over the extent of share-based compensation relative to cash. Second, the decision must be taken over the form of such payment as more techniques are possible in addition to ESO, e.g. share purchase plans, stock awards or convertible bond grants. Third, a decision over the details of the ESO contract, including exercise price, market and/or performance-based conditions, vesting schedule, expiry time etc. must be made. Fourth, following the grant date some decisions may have to be taken in the event of possible inadequate realization of option payoff, including option repricing, exchange for cash etc. Finally, management of the EPS dilution must be frequently adopted, linking corporate compensation and payout policies.

In the framework of ESO-related decisions regulatory issues seem to play a separate role. Below, some regulatory determinants of ESO grant intensity are discussed and an empirical example of the ESO plans of selected major US and EU technology companies in the years 2002–2004 is examined.

2. Regulatory ESO grant size determinants: reporting and tax regimes

Among the determinants of ESO policy which differ across jurisdictions a number of characteristics, including disclosure, reporting and accounting rules as well as personal and corporate tax treatment should be examined to see if and to what extent they influence the ESO strategies of firms.

A major current development in the regulatory approach to ESO is the change in their accounting treatment. Both IASB and FASB introduced recently new accounting standards for these instruments requiring their mandatory expensing. The new IASB standard IFRS 2 becomes effective in 2005, while the new SFAS 123R should be adopted in the corporate reports in the second half of 2005. The discussion on these new standards has been active for many years. In particular, corporate executives had to assess their impact on the compensation and payout strategies.

In some sectors, e.g. in the US technology sector, stock options were used extensively in the previous years. Most companies disclosed information on the number of options granted, exercised, cancelled and outstanding, their exercise prices, and the ESO impact on the profit statement through the adoption of the accounting rules embedded in the APB Opinion 25. These rules mandated that a pro forma profit statement should be included in the financial reports with options expense valued with the standard Black-Scholes/binomial model. Recently, after the transition to the mandatory expensing started, there was much deliberation on how the inclusion of such computations into the main statements could affect the share prices. Arguably, since the investors had full access to the pro forma statements in previous years, it is not certain that the impact will be severe. Still, it is interesting to investigate to what extent these changes modified the ESO policies of firms, as even with mandatory expensing under the new SEAS 123R, companies will be able to apply some discretion in the computation of the option expense within the lattice model framework recommended in that standard and include the frequently complex contractual features, as well as their own assessment of the performance parameters and exercise characteristics in the valuation process.

The personal and corporate tax regime may be another important determinant of ESO strategy. For example, in the US, a firm issuing employee options receives a tax benefit on their exercise. These benefits contributed in many cases to the substantial reduction of the marginal tax rate of the US companies in the late 1990s and in 2000 due to high ESO exercise rates [see

Edwards et al. (2004); for the Microsoft and Cisco case see Grabowski (2002)]. Klassen and Mawani (2000) found tax incentives to be significant in the cash/option mix determination for Canadian CEOs in the early 1990s, where, in contrast to the US, no tax deduction on exercised option is allowed. Personal tax rules for ESO also differ across jurisdictions. Colon (2004) and OECD (2004) discussed the personal tax differences related to ESO with a view to establishing more level compensatory playing field for increasingly internationally mobile employees. Niemann and Simons (2002) studied personal tax regime impact as well as corporate tax benefits in a theoretical principal-agent model. Elschner and Schwager (2004) simulated the influence of options on compensation costs for various tax regimes and option characteristics.

3. An empirical example: the ESO plans of selected US and European technology companies, 2002–2004.

To illustrate the characteristics of ESO plans in various regimes, the ESO policy of major US and European technology companies during 2002–2004 is presented below. Six companies are chosen from each area. The six European companies selected are the six out of top seven companies ranked by capitalization in the Dow Jones Stoxx Technology index as of March 31, 2005. This index groups the largest European companies in the technology sector. From the top index constituents, the second largest company, Ericsson, is excluded, since it has recently adopted share purchase programs, it did not grant options in 2004 and its total outstanding option plan size was negligible (under 1% of shares outstanding) in 2004. The six companies are: Nokia, SAP, Alcatel, STMicroelectronics, ASML and Infineon and their market capitalization range is €4.5–55.8bn. The six US companies are again six out of top seven companies ranked by capitalization in the Dow Jones US Technology index as of April 18, 2005. The largest company, Microsoft, is excluded since it has suspended its option plan in favor of stock awards recently. The six companies are: Intel, IBM, Cisco, Dell, Hewlett-Packard and Qualcomm and their market capitalization ranges from $53.5 to $140.Sbn. The ESO data presented for these companies in Table 1 (Europe) and Table 2 (the US) include: the amount of ESO outstanding, granted, exercised and cancelled as a percentage of total outstanding shares at the end of period for the European companies and weighted average basic shares for the US companies.

The prices of technology shares recovered in 2003 following a decline in earlier years. This means that options granted earlier may have not been exercisable early in the 2002–2004 period, and that the price decline presented a good opportunity to issue more options with lower exercise prices [see Grabowski (2004b) on the ESO grant timing hypothesis]. Further, as already discussed, it is interesting to observe how the transition period with regard to the introduction of option expensing influenced ESO strategies. Microsoft,

discontinued its option plan, adopted stock awards, bought back a large part of its outstanding option plan back from the employees and sold the options, after dropping their compensation-linked contractual features to the JPMorgan Chase bank [see Grabowski (2004a) for the details]. Other large companies moderated somewhat the size of their new grants. For example, two strong proponents of options, Intel and Cisco, were granting options at the rate of 2.6%, and 4.2% of outstanding shares annually in the 1999–2001 period and at the rate of 2% and 3.2% in the recent three years. The level of options outstanding, a measure of the size of an option plan, remained stable for the sample during 2002–2004. That seems to indicate that large US technology companies largely disregarded the introduction of the new reporting rules and decided that keeping large option plans was a more profitable strategy.

Interestingly, the size of the outstanding option plans remained stable also for the European technology companies in the sample. However, the size of the plans was much different from the US firms. While the average size of the option plan for the US sample was 15.3%, it was only just one third of this figure, 5.1%, for the European firms. The average annual option grant for the European companies in the 2002–2004 period was 1.07% and 2.52% for the US firms. The two largest European companies in the sample, Nokia and SAP, curtailed their grants in 2004. For all US companies the grants were highest in 2002, when their stock market prices were relatively low. A larger sample could be helpful to disentangle the relative importance of the three discussed factors: corporate tax benefits, option expensing regime change and stock market prices level in the ESO policy as measured by the grant size in recent years.

4. Conclusion

The reporting regime for employee stock options has recently undergone important changes with standard-setting institutions in both Europe and the US issuing rules for mandatory option expensing. In contrast, there was less convergence in the tax treatment of ESO. The accounting changes and the remaining differences in the taxation regime offer an opportunity to study the impact of regulation on corporate ESO strategies. An example of the ESO plan characteristics of selected US and EU technology firms during 2002––2004 indicates that there may be a disparity in the grant rate and in the overall size of ESO plans between the EU and the US. The attribution of differences to regulatory regime features must be however controlled for other important parameters, like firm size and development stage, as well as for the stock market share price developments.

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Table 1.

Employee share options outstanding, granted, exercised and cancelled, European technology companies, 2002–2004 (as % of total end-of-period shares outstanding).

Company	Year	Outstanding	Granted	Exercised	Cancelled
Nokia	2002	4,63	1,07	1,08	0,13
	2003	5,09	0,66	0,16	0,12
	2004	3,19	0,16	0,02	2,28
SAP (a)	2002	3,45	1,53	0,02	0,20
	2003	4,41	1,18	0,07	0,16
	2004	4,75	0,67	0,16	0,15
Alcatel (b)	2002	5,43	0,00	0,00	0,31
	2003	6,58	2,24	0,01	0,88
	2004	7,42	1,52	0,10	0,45
STM	2002	5,27	1,SS	0,07	0,12
	2003	6,40	1,36	0,15	0,10
	2004	7,34	1,40	0,28	0,1S
ASML	2002	4,95	0,93	0,32	0,06
	2003	5,09	0,S2	0,07	0,31
	2004	5,30	0,S1	0,18	0,12
Infineon	2002	2,76	1,30	0,00	0,11
	2003	4,15	1,62	0,00	0,24
	2004	4,82	1,08	0,00	0,27

Source: US SEC Form 20-F annual reports. (a) includes compensatory convertible bonds; (b) only 2001, 2003 and 2004 option plans included.

Table 2.

Employee share options outstanding, granted, exercised and cancelled, US technology companies, 2002–2004 (as % of total weighted average basic shares outstanding).

Company	Year	Outstanding	Granted	Exercised	Cancelled
Intel	2002	12,71	2,61	0,77	0,68
	2003	13,02	1,68	0,98	0,64
	2004	13,81	1,79	0,76	0,51
IBM	2002	13,09	3,52	0,44	0,44
	2003	14,24	2,40	0,65	0,46
	2004	14,89	1,58	0,84	0,48
Cisco	2002	16,52	3,86	0,74	1,12
	2003	18,29	2,79	0,63	0,80
	2004	19,74	2,85	1,40	0,76
Dell	2003	14,98	3,25	0,85	0,97
	2004	14,74	1,99	1,36	0,97
	2005	14,71	2,07	1,79	0,64
H-P	2002	18,38	2,66	0,37	0,70
	2003	16,41	2,34	0,49	0,53
#$	2004	18,18	2,38	0,43	0,38
Qualcomm	2002	15,21	3,44	1,85	0,40
	2003	13,49	2,13	2,96	0,54
	2004	12,60	1,93	2,24	0,27

Source: US SEC, Form 10-K annual reports.