

## Box 2

**STOCK OPTIONS, SHARE BUY-BACKS AND THEIR EFFECTS ON EQUITY MARKETS: EVIDENCE FROM THE UNITED STATES**

Changes in corporate accounting requirements can affect the valuations of companies and, consequently, the prices of stocks. Useful information on this topic can be gained by looking at recent changes in accounting requirements in the United States. After years of debate between regulators and company representatives (especially those of companies belonging to the so-called growth sectors), new accounting rules have been approved on the treatment of stock options – staff compensation in the form of shares in the company. The new accounting rules set out in the revised Financial Accounting Standards Board Statement No 123 require companies to recognise the value of stock options entirely as expenses on the date of issuance and for the entire vesting period of the option, starting in 2006 for the majority of the companies. Thus, the impact of these new requirements on corporate earnings is likely to become visible in releases over the next few quarters. Although the near-term impact of these new regulations on stock prices is likely to be significant for certain sectors, the overall effect on the broad index will probably be moderate.

The systematic exclusion of stock options from the cost account was a general characteristic of so-called pro-forma earnings.<sup>1</sup> These pro-forma earnings, and the distorted image they tended to give of company profitability, were mentioned as one of the reasons for the stock market bubble that built up at the end of the 1990s and then burst in 2000, especially in the case of companies in the technology sector. In addition, the release of pro-forma earnings helped to hide cases of fraud which were eventually revealed in the accounting scandals involving US corporations – Enron, Tyco and WorldCom. Pressured by concerned investors in the aftermath of the scandals, more companies have started to treat stock options as an expense, but their number remain low.

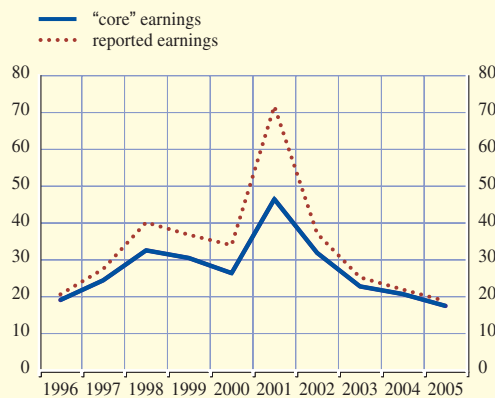
Analysts at Standard & Poor's started to include stock options as expenses in the calculation of earnings in 2001, and a new series, the core earnings series for companies included in the Standard & Poor's 500 index, was published (see Chart A). The difference between released

<sup>1</sup> These are projected earnings based on a set of assumptions which exclude non-recurring items. Items sometimes excluded from figures on pro-forma earnings include write-downs, goodwill, amortisation, depreciation, restructuring and merger costs, interest, taxes, stock-based employee pay and other expenses.

earnings and core earnings was sizable in the period from 2000 to 2001, but has declined noticeably in the most recent years, when a larger group of companies started to take stock options into account and several companies changed their compensation policies, thereby reducing the use of stock options altogether. The difference between the values of the earnings in the two series at the end of 2004 – the latest date for which official balance sheets data are available – was around 6%. Thus, the effect of the new regulations on earnings releases, and on the overall stock market index, in the next few quarters is not expected to be significant. However, the aggregate series hide large differences in the importance of stock options among sectors. Time series data on the earnings per share at a sectoral level are not readily available; however, option costs range from around 5-6% of the total operating costs in sectors such as “consumer discretionary” and “health care” to almost 18% in the case of companies in the information technology sector (see Chart B).

**Chart A Reported earnings per share and “core earnings” of companies in the S&P 500 index**

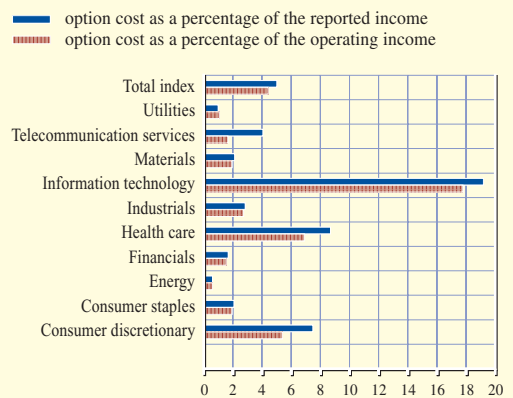
(annual data)



Source: Standard & Poor's.  
Note: Data for 2005 are estimated.

**Chart B Impact of stock options on the corporate income of sectors in the S&P 500 index**

(end of the 2004 fiscal year)



Source: Standard & Poor's.

The impact of the new accounting rules is also evident in another important trend characterising recent developments in the stock market, especially in the United States: the rise in share buy-backs. When a stock option is “in-the-money”, the holder of the option is likely to exercise it. At this point, a firm really has a choice between two alternatives: it can issue new shares and give them to the holder of the option, or it can buy outstanding shares in the market and sell them to the holder of the option at the price implied by the option contract, which is lower than the market price. If a company issues new shares, the earnings per share decline because of the dilution effect – there are simply more shares outstanding. Conversely, if the company buys shares at the market price and then sells them at a lower price, it will incur a loss which will decrease its overall earnings. The monetary impact the two alternatives have on profits will not be the same.

Over the past few years, US companies seem to have increasingly chosen the second option, as reflected in the rising trend of share buy-backs in the United States in the last few quarters.<sup>2</sup>

<sup>2</sup> See the box entitled “The recent surge in US share buy-backs: causes and possible financial stability implications,” in the ECB Financial Stability Review of December 2005.

Under US accounting rules, share buy-backs allow a more “dynamic” management of equity liabilities since shares retired from the market through a buy-back can later be re-utilised where necessary. Another reason why companies buy back their shares is that the funds they have available are higher than their near-term investment needs, which seems to have been true in an environment of comparatively low investment by US companies over the past few years. All in all, the increase in the use of share buy-backs, and thus an increased demand for corporate shares, is likely to have supported stock prices.

In Europe, except in the case of the United Kingdom, both evidence on the use of stock options as a form of employees’ compensation and data on share buy-back programmes are fragmented. Nevertheless, there are signs that buying back shares is on the rise in the euro area as well. Under the new international financial reporting standards, which all listed companies in the EU have to fulfil as from the 2005 fiscal year, companies are required to recognise the value of share-based payments in their income statements. Whether this will translate into a one-off impact on earnings or whether it will have a longer-lasting effect depends on the extent to which stock options are used as a form of compensation in the euro area. Anecdotal evidence suggests that the use of this form of compensation is limited in the euro area, although it is significant in specific industries (in the technology sector, in particular).