Box 3

STOCK PRICES AND EARNINGS IN THE EURO AREA

Against the background of double-digit stock market returns in the euro area each year since 2003, this box takes a closer look at developments in corporate earnings as the generally most important fundamental factor driving stock prices in the long run.

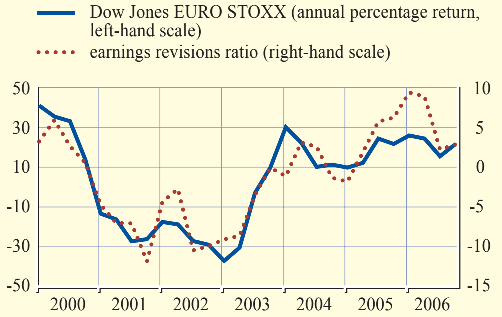
In efficient markets, financial assets are valued according to the present value of the future cash flow that investors expect to receive from holding the asset. Applied to the valuation of stock prices, this implies that expected dividends, which in turn depend on expected earnings and corresponding dividend payout ratios, and the discount rate (which is used to calculate the present value of the future income stream) are the key fundamental stock price determinants. However, market inefficiencies may exist due to some form of irrational behaviour on the part of at least some investors – such as "herding", "positive feedback trading" or "overreaction" behaviour – which may at times drive stock prices away from fundamentals.[1]

If stock prices reflect expected dividends and expected earnings, one could expect them to change each time investors revise their earnings expectations. Chart A therefore plots the annual stock price return in the euro area together with a ratio measuring revisions in twelve-month forward earnings estimates by professional stock market analysts. It reveals that the strong stock market performance in the euro area since the second half of 2003 coincided with a period in which brokers on balance revised up their earnings estimates for the next twelve months. Put differently, upward revisions in expected earnings growth may probably to a large extent explain the strong stock market performance in the euro area in recent years.

1 See the article entitled "The stock market and monetary policy" in the February 2002 issue of the Monthly Bulletin.

Chart A Return on the Dow Jones EURO STOXX index and the earnings revisions ratio

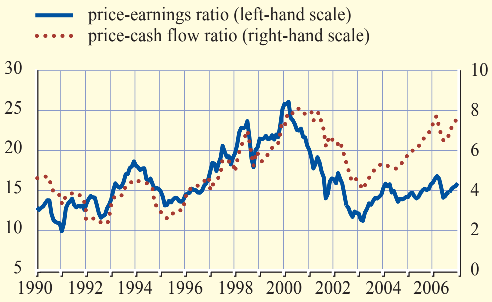
(quarterly averages of daily and monthly data)



Source: Thomson Financial Datastream.
Note: The earnings revisions ratio is calculated as the balance of upward and downward revisions as a percentage of the total number of 12-month forward earnings estimates by brokers for companies in the Dow Jones EURO STOXX index.

Chart B Price-earnings ratio and price-cash flow ratio for the MSCI EMU index

(monthly averages of daily data)



Source: Thomson Financial Datastream.
Note: Operating cash flow refers to funds from operations, representing the sum of net income and all non-cash charges from operations, subtracting non-cash credits from operations.

A company's profitability can be measured in several ways. Reported earnings is the broadest and most recognised performance measure, since it includes, in principle, all income, expenses and charges. Another performance measure is cash flow from operations, which is the net inflow of liquid funds generated from a firm's operations and irrevocably secured during the reference period. Chart B plots the price-earnings ratio based on reported earnings and the price-cash flow ratio for the MSCI EMU stock price index. For most of the time since the early 1990s, the price-cash flow ratio has co-moved relatively closely with the price-earnings ratio. In recent years, however, developments in the two ratios have been quite different. While the strong stock price advances have led to an only moderate increase in the price-earnings ratio, the price-cash flow ratio has risen relatively strongly.

This differing behaviour in the two ratios in part reflects developments in certain non-cash expenses, namely amortisation of intangibles and depreciation, which are deducted from the cash flow from operations when calculating reported earnings. According to individual euro area company data, depreciation has gradually declined in relative terms in recent years. As a result, reported earnings showed stronger increases than operating cash flows in this period. At the same time, the introduction in 2005 of new accounting standards in the euro area, the International Financial Reporting Standards (IFRS), could have boosted reported earnings through its shift in the focus of accounts from historical costs to "fair-value accounting". In general, this shift tends to make profits more volatile than in the past. In particular, it might lead to higher reported earnings during economic "good times" and lower reported earnings in "bad times", the former of which might be relevant in the present context.

To conclude, the strong stock market performance in the euro area in recent years may to a large extent be related to the (better than expected) development of earnings. Some caution is, however, warranted in such an explanation due to the fact that cash flow from operations, a measure that tends to better reflect companies' profit-generating capacity, has in recent years grown more slowly than reported earnings.