



## EQUITY ISSUANCE IN THE EURO AREA

*This article analyses developments in equity issuance in the euro area over the last 12 years, with a particular emphasis on initial public offerings, and puts them into a historical and geographic perspective. One of the most notable developments has been the dramatic and unprecedented rise in the volume of gross public equity raised by euro area companies in the late 1990s. Public equity issuance activity subsequently declined for a number of years before picking up again in recent quarters. These developments emphasise the strong cyclical nature of the public equity market in general and of the initial public offering market in particular.*

*A company's decision to issue public equity is an important one, and may be motivated by a number of factors. In the euro area, public equity issuance has enabled firms to raise significant levels of funding to finance both real investment and merger and acquisition activity. There is also evidence that companies tend to issue public equity when stock market prices are particularly high and risk aversion on the part of investors is low.*

### I INTRODUCTION

From a historical perspective, the importance of stock markets in Europe as a source of corporate funds has evolved, sometimes dramatically, over time.<sup>1</sup> Developments in these markets in turn have an impact on the financing conditions of corporations.<sup>2</sup> For instance, a developed equity market will lower the cost of equity capital and increase aggregate investment.

In relative terms, public equity markets worldwide tend to play a limited role as a source of new funds for listed corporations, mainly on account of the existence of asymmetries of information. External financing is generally raised via bank loans or debt securities. That said, the equity market can play a significant role in providing additional external funds, especially via large offers (where the asymmetries of information are generally less relevant) or when “helping” higher growth businesses to raise capital in the market (new listings). Large equity offerings are often related to the financing of mergers and acquisitions. While all forms of public equity issue are reviewed in this article, particular attention is paid to initial public offerings (IPOs) in view of, first, the spectacular developments that have occurred in this market since the mid-1990s and, second, the fact that a liquid IPO market can promote entrepreneurship by providing exit strategies for venture capital companies.<sup>3</sup>

This article starts by explaining the basic concepts of equity financing. It then reviews the main theories of corporate financing and considers the principal factors which motivate firms to list their shares on a stock exchange. Thereafter, developments in public equity issuance in the euro area over the last 12 years are explained in the light of such factors.

### 2 MAIN CONCEPTS OF EQUITY FINANCING

Equities are securities representing ownership of a stake in a company. Unlike a debt contract in which the borrower is obliged to pay the lender a certain fixed (or floating) interest rate, an equity contract grants the investor a residual right to receive income from the company's earnings. Equity can be issued either privately in the form of unquoted shares, or publicly via shares that are listed on a stock exchange (quoted shares). Over time, these possibilities are not, however, mutually exclusive, and often the form of financing chosen will depend on the

1 For instance, in most European countries, the amount of equity funds raised as a percentage of gross fixed capital formation was higher in 1913 than in 1990. See Rajan N. and L. Zingales (2003), “The great reversals: The politics of financial development in the 20th Century”, *Journal of Financial Economics* Vol. 69, Issue 1, pp. 5-50.

2 See Levine R. (2003), “Finance and growth: theory and evidence”, *Handbook of Economic Growth*.

3 See also Section 2. Venture capitalists specialise in providing equity finance to companies that cannot obtain external financing via bank loans owing to the level of risk involved. An IPO allows a venture capitalist to “cash in” its initial investment by selling its participation in the company.

stage of the financing cycle of the company. Private equity may originate from an initial investment made by the company's owners or by subsequent private equity investors, or from a company's accumulation of retained earnings.

The private equity market provides equity capital to firms not quoted on a stock market. Within this market, venture capital is often provided by investors as "start-up" money to finance new high-risk companies in return for an equity position in the firm.<sup>4</sup> When issuing public equity, companies may obtain a listing on a stock exchange for the first time or, if they are already listed, issue additional shares. The first type of issue is an IPO, while the second type is a seasoned equity offering (SEO) or secondary public offering (SPO). In both instances, a company may decide to substitute existing unquoted shares for quoted ones (public equity), or issue newly created shares. The funds raised from the acquisition of newly created shares accrue to the company, whereas the proceeds from the sale of substituted shares are directed to the initial investors.<sup>5</sup>

### BASIC THEORIES OF CORPORATE FINANCING

Before considering the developments in equity issuance, it is helpful to briefly review the main theories of the financial structure of firms and, in particular, the proportion of financing represented by debt and equity respectively. Given the above-mentioned characteristics of an equity contract (unlike a debt contract, an equity contract has, in principle, infinite maturity), equity financing could be particularly useful for funding fixed investment plans or acquiring other companies. From a corporate finance perspective, one of the main consequences of public issuance is the restructuring of a firm's funding structure. While in a frictionless market a company's value is independent of its financial structure,<sup>6</sup> in the real world a number of issues make the choice of financial structure relevant. Indeed most recent corporate finance theories base the choice of financial structure on models that depart from the frictionless paradigm.<sup>7</sup>

According to the "trade-off" theory, firms identify target debt-equity ratios in which they weigh the cost and benefits of equity against those of debt. For instance, tax considerations could play an important role, as in most countries debt tends to be less heavily taxed than equity. At the same time, high capitalisation would imply a lower likelihood of financial distress.

Another factor that is likely to have an impact on a firm's capital structure and the decision as to whether to issue more equity is the existence of "asymmetries of information" between managers and external shareholders. That is, managers are likely to have better information regarding the firm's prospects than external fund providers, causing concern to external investors. According to the "pecking order" theory, there is a pecking order of sources of finance depending on the intensity of information asymmetries between managers and investors associated with each of the different sources of financing. Thus, firms prefer to finance new investment with internal finance (such as retained earnings) first, then with outside debt financing and ultimately with public equity financing. This theory would partly explain why seasoned equity issues are relatively rare.<sup>8</sup>

### MAIN REASONS FOR COMPANIES TO GO PUBLIC

While it is relatively uncommon for listed companies to issue equity securities, mainly on account of information asymmetries, "going

4 See Box 2 entitled "The development of private equity and venture capital in Europe" in the October 2005 issue of the Monthly Bulletin.

5 See Jenkinson T. and A. Ljungqvist (2001), "Going Public: the Theory and Evidence on How Companies Raise Equity Finance", 2nd edition, Oxford University Press.

6 Modigliani F. and M. H. Miller (1958), "The cost of capital, corporation finance and the theory of investment", *American Economic Review* Vol. 48, No 3, pp. 261-297.

7 For an overview of the different theoretical models see Tirole J. (2006), "The Theory of Corporate Finance", Princeton University Press. For an empirical analysis of the "pecking order" theory, see Fama E. F. and K. R. French, "Financing decisions: who issues stock?", *Journal of Financial Economics* Vol. 76, Issue 3, pp. 549-582.

8 See Tirole, J. (2006), "The Theory of Corporate Finance", Princeton University Press.

public” for the first time is one of the most important financial decisions in the life of a company, as it has significant economic implications. Focusing on the IPO market, one of the main reasons for issuing equity is to obtain funds to finance long-term real and financial investment. Moreover, the listing of a company’s shares on a stock exchange also increases its financial autonomy, enabling it to be less dependent on a single financial provider (such as a bank or venture capitalist) and improving its access to the public capital markets via corporate bonds or further equity issues. Further, by issuing equity, the company owners can diversify their investment risk by selling stakes in the company in a liquid market. Another advantage of public issuance is increased recognition of the company name. In addition, from the time of the IPO investors receive better information on account of improved transparency and the disclosure requirements that are part of the listing conditions. At the same time, the price of a company’s stock acts as a measure of the company’s value and as a disciplining mechanism for managers.

On the other hand, there are a number of disadvantages for a company inherent in listing its shares on a stock exchange. To start with, equity issuance is an expensive procedure, incurring costs such as underwriters’ commission, legal fees and others charges resulting primarily from the need to satisfy the additional disclosure requirements. In addition, from the perspective of investors, going public implies that the ownership of the company is likely to be shared more widely, resulting in a wider gap between external investors and managers. This separation of ownership and control could cause so-called “agency problems”, where company insiders hold more accurate information on the prospects of the firm than external equity investors, resulting in a divergence of managers’ and outside investors’ interests. Lastly, by going public, a company exposes itself to scrutiny by shareholders, who may be excessively focused on short-term results.

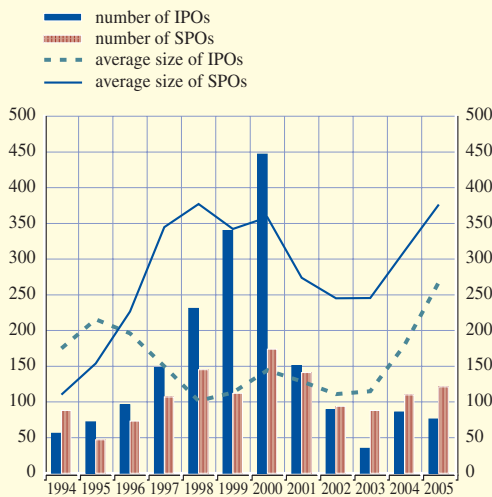
### 3 DEVELOPMENTS IN THE EURO AREA EQUITY MARKETS

Data on gross equity issuance over the last 12 years obtained from commercial data providers shows that from 1994 to 2005 IPO and SPO activity experienced very distinctive phases. In the early and mid-1990s, equity issuance was a funding option for a very limited number of companies. In the euro area in 1994, for example, only around 55 companies went public (see Chart 1). The considerable rise in stock market prices in the late 1990s was matched by record IPO activity. SPO issuance experienced a more gradual increase during this period. The drop in profit expectations, coupled with significant corporate governance problems occurring within a number of listed companies, dented investor confidence and triggered a large decline in equity issuance. In this context, the number of IPOs fell from the high of 447 in 2000 to 151 in 2001 and to 35 in 2003. Overall a degree of variation in the volume of equity issuance is common in most developed countries. This substantial variability in public equity markets is characterised by (so-called) “hot markets”, in which there is a significant clustering of equity issuance activity, and (so-called) “cold markets”, in which there is little equity issuance activity.

While in the late 1990s a large number of (partially) state-owned companies were privatised and their shares listed on a stock exchange, a large percentage of the issues in this period can be qualified as “new economy” offerings. The share of public capital raised was particularly high in sectors with high growth expectations and with significant uncertainty surrounding future earnings. In particular, equity issuance in the technology, media and telecommunications (TMT) sector was buttressed by the high (as well as uncertain) earnings expectations for these companies. Chart 2 depicts the sector distribution of gross equity issuance during both “hot” and “cold” periods. The TMT sector experienced an increase in the share of total equity issuance from 26% in the “cold” period of the mid-1990s

**Chart 1 Number and average size of IPOs and SPOs by non-financial corporations in the euro area**

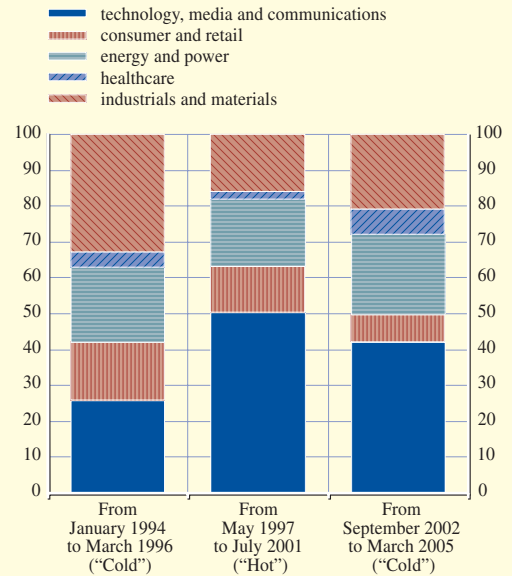
(sums of issues; EUR millions; annual data)



Source: Thomson Financial Database.  
Note: The average sizes of IPOs and SPOs are calculated as two-year moving averages.

**Chart 2 Sector distribution of gross public equity issuance in “hot” and “cold” periods in the euro area**

(percentage shares)



Source: Thomson Financial Database.  
Note: “Hot” and “cold” periods are broadly defined on the basis of the lower and upper thirdiles (below 33% and above 66%) of the magnitude ordered equity issuance series. The equity issuance series are calculated as a three-month centered moving average.

to 50% in the subsequent “hot market” phase from mid-1997 to mid-2001. Although equity issuance in the TMT sector declined in the ensuing “cold” market phase from late 2002 to early 2005, it still remained relatively high as a percentage of total issuance, at 42%.

The increase in new listings (IPOs) in the late 1990s was also linked to the concurrent growth of specialised stock markets. These markets were initially created to enable innovative, high-growth firms, which under listing rules would have been excluded from more traditional stock exchanges, to gain access to public equity finance. One such market was the EURO.NM, a pan-European group of five stock exchanges providing equity capital mainly for newer and high-risk companies. The number of companies listed on the EURO.NM increased rapidly from 1998 to 2000. However, as a result of reduced expectations of future increases in “new economy” stock prices, the EURO.NM market

ceased to exist in December 2000, and its most active stock exchange, Frankfurt’s Neuer Markt, closed down in 2003.

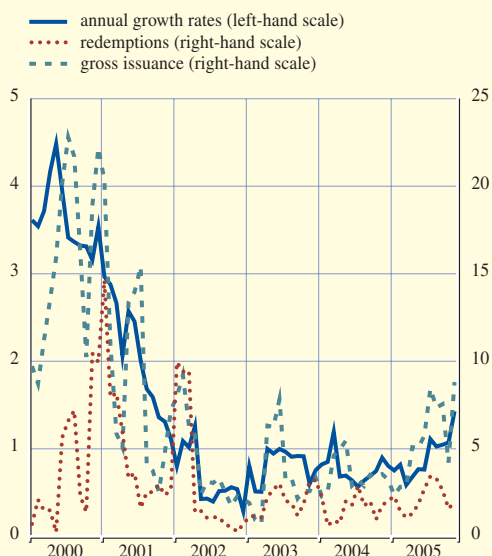
While the above analysis focuses on gross equity issuance, an accurate assessment of equity issuance must take account of equity redemptions (i.e. including financial transactions). This is because non-financial corporations may buy back or delist some or all of the shares they have issued, which of course affects their financial position. Eurosystem data on the net amount of equity issued, including financial transactions for the euro area, are only available from 2000. Chart 3 shows that, after the high level of growth in 2000 and 2001, the annual rate of growth of publicly issued equity in the euro area slowed down and then remained stable over the following three years. There appears to be an upturn in the rate of growth of equity issuance from mid-2005 onwards, although it remains

well below the record levels experienced in the late 1990s. For a complementary and integrated picture of the net issuance of equity, particularly when compared with other sources of corporate financing, it is necessary to consider the overall accounts of non-financial corporations (see the box below).

In the euro area, the IPO and SPO markets are of a more or less similar size in terms of volume issued over the last ten years. Despite this fact, the rest of this article focuses on IPO activity only, for a number of reasons. First, as mentioned above, going public for the first time has important economic implications for the firm (such as the likely separation of ownership and control). Second, a developed IPO market is important in order to promote entrepreneurship, as such markets provide an exit option for venture capitalists. Third, the IPO market is of particular interest in the light of the spectacular increase in IPO issuance since the mid-1990s and its marked cyclical nature over the economic cycle.

**Chart 3 Quoted shares issued by euro area non-financial corporations**

(annual growth rates of outstanding amounts; percentage changes; transactions in EUR billions; monthly data)



Source: ECB.  
Notes: Gross issuance and redemptions are three-month moving averages. Growth rates are calculated on the basis of financial transactions.

## Box

### DEVELOPMENTS IN EQUITY FINANCING: EVIDENCE FROM THE EURO AREA ACCOUNTS

This box uses information from the euro area accounts of non-financial corporations to consider developments in equity issuance in the euro area.<sup>1</sup> These statistics provide an integrated perspective on the financing situation of corporations, thereby enabling an assessment of the aggregate importance of equity financing and a comparison with other means of external and internal financing. In addition, the statistics offer an insight into how corporations use financing in terms of financial versus non-financial investments.

The financial accounts definition of equity in the euro area covers the net issuance of (or net incurrence of liabilities in) quoted shares, unquoted shares and other equity. Quoted shares include shares listed on a stock market or other forms of secondary market. Unquoted shares comprise shares which are, in principle, negotiable, but which are not publicly quoted (such as privately held shares). Other equity refers to all other forms of equity conferring property rights in corporations.

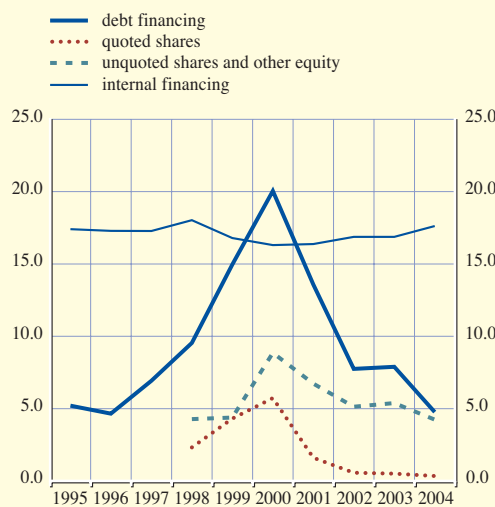
<sup>1</sup> The data analysed in this box are also shown in Table 2 of Section 3.4 of the “Euro area statistics” section, entitled “Annual saving, investment and financing”. These data may be revised if new data sources become available.

Chart A illustrates the developments in the different sources of financing relative to the gross value added of non-financial corporations (hereinafter “GVA”) from 1995 to 2004. During this period, external financing, which mainly comprises equity financing and debt financing (including loans, debt securities and pension fund reserves), was pro-cyclical. Most external financing sources increased as a proportion of GVA during the phase of stronger economic growth in the late 1990s. In this respect, the net issuance of quoted shares (data for which are available from the fourth quarter of 1997 onwards) shows a particularly strong increase between 1998 and 2000. It is likely that this increase is related to the spectacular growth in stock market prices during this period (see Section 4). By contrast, from 2001 to 2004 there was a sharp decline in profit expectations, and the net issuance of public equity experienced a very pronounced decrease. Hence, developments in net public equity financing were very similar to those in gross equity issuance (see Section 3). In relative terms, the decline in net financing through unquoted shares and other unquoted equity from 2001 to 2004 was milder than in the case of quoted shares.

In addition to external financing, corporations also obtain funds via internal financing. In this box, internal financing is defined as gross savings, which corresponds broadly to the sum of retained earnings and consumption of fixed capital (also called depreciation allowance). In an economic sense, internal financing can also be considered as equity funds which are re-invested by shareholders and therefore remain inside the firm. As a percentage of GVA, internal financing has remained relatively stable over time, reaching a peak in 1998 and declining in 1999 and 2000. More recently, internal financing has picked up again in relation to GVA.

**Chart A Net sources of funding of non-financial corporations in the euro area**

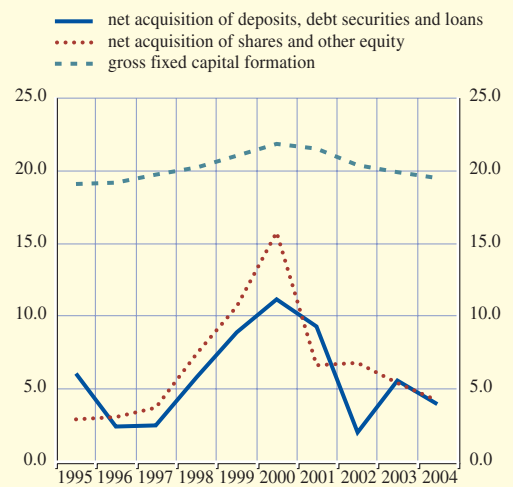
(as a percentage of gross value added of non-financial corporations)



Sources: ECB and ECB calculations.  
 Note: Debt financing includes loans, debt securities and pension fund reserves. Unquoted shares and other equity are calculated as the difference between total equity and quoted shares. Internal financing (also called gross savings) corresponds to the sum of retained earnings and consumption of fixed capital (also called depreciation allowance). Gross value added of non-financial corporations is partly estimated.

**Chart B Uses of funds of non-financial corporations in the euro area**

(as a percentage of gross value added of non-financial corporations)



Sources: ECB and ECB calculations.  
 Note: Net acquisition of deposits, debt securities and loans also includes currency. Gross value added of non-financial corporations is partly estimated.

The total sources of funds (internal and external financing, including net capital transfers receivable), as an accounting identity, must be equal to the total uses of funds. In broad terms, the total uses of funds can be broken down into the net acquisition of financial assets and the net acquisition of non-financial assets. The net acquisition of financial assets may be broadly subdivided into two main categories: first, shares and other equity, and, second, other financial assets including currency, deposits, debt securities, loans, derivatives, insurance technical reserves and other payable accounts. The net acquisition of non-financial assets consists mainly of gross capital formation.

The developments illustrated in Chart B suggest that net acquisition of financial assets as a proportion of GVA and, in particular, net acquisition of shares and other equity was relatively pro-cyclical. A comparison of investment activity with developments in net financing flows (Chart A) reveals a strong co-movement of net equity financing and net acquisition of equity, suggesting that the proceeds of equity issuance activity were often used to finance merger and acquisition (M&A) activity (see also Section 4).

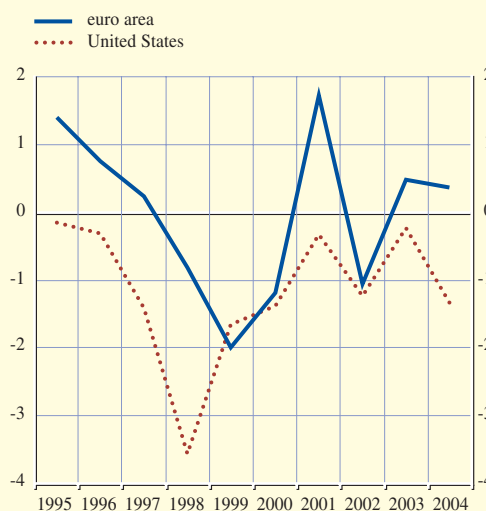
### International comparison

There are a number of differences between the statistical concepts used in the euro area and the United States. Some adjustments are therefore necessary for the purpose of comparing equity issuance in both economic regions.<sup>2</sup>

In US flow of funds accounts, the asset side of the balance sheet of non-financial corporations does not show the acquisition of shares and other equity. This is largely because the purchase of shares by a non-financial corporation is treated as a redemption of shares on the liability side, as the purchase is considered to be related principally to resident M&A activity and share buy-backs. By contrast, in the euro area financial accounts of non-financial corporations, net acquisitions of shares are recorded on the asset side (unless there is a full merger and the outstanding shares are fully redeemed). Hence, to ensure a more meaningful comparison and

Chart C Consolidated net equity financing

(as a percentage of gross value added of non-financial corporations)



Sources: ECB, US flow of funds accounts and ECB calculations.

Notes: "Consolidated" net equity financing for the euro area is calculated as the net issuance of shares and other equity minus the net acquisition of shares and other equity. As opposed to a proper consolidation (i.e. the cancellation of all transactions for a given financial instrument within a sector), the net issuance and the net acquisition of shares (and other equity) also include transactions in shares with other sectors and the rest of the world. Gross value added for non-financial corporations in the euro area is partly estimated.

<sup>2</sup> In the euro area national accounts, data are compiled in accordance with the European System of National and Regional Accounts (ESA 95), which is broadly in line with the global System of National Accounts (SNA 93). The United States, however, has not fully adopted the SNA 93 and therefore some differences remain between the statistical concepts used in the euro area and in the United States. For more general methodological differences, see the article entitled "Developments in private sector balance sheets in the euro area and the United States" in the February 2004 issue of the Monthly Bulletin, and the article entitled "Comparability of statistics for the euro area, the United States and Japan" in the April 2005 issue of the Monthly Bulletin.

greater consistency with the US treatment of flow of funds, we construct an approximate “consolidated” equity financing measure for the euro area as the difference between net equity financing and the net acquisition of equity.

Chart C compares equity financing in both areas. From 1995 to 2004 consolidated net equity financing was negative in the United States, largely as a result of share buy-backs and equity retirement following mergers. This was also the case in the euro area during the periods of intense M&A activity in the late 1990s and 2000, as well as in 2002. This would suggest that both M&A activity and share buy-backs were more prevalent in the United States than in the euro area during the overall period.

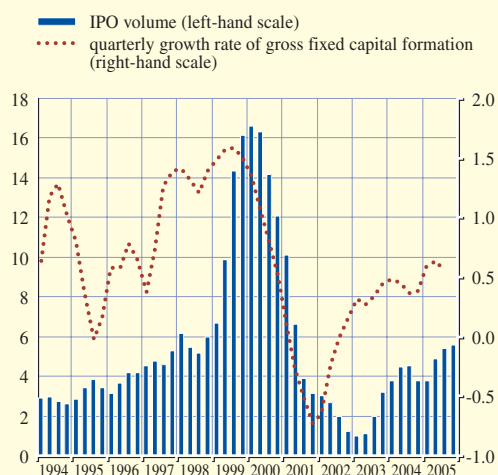
#### 4 DETERMINANTS OF IPO ACTIVITY IN THE EURO AREA

As indicated above, one of the more distinctive characteristics of the equity market in general, and of the IPO market in particular, is its cyclical nature (see also the box above). Cyclical nature in IPO issuance can also be related to corporate financing theories. For instance, “hot-market” periods tend to coincide with periods of low risk aversion on the part of investors, in which the actual or perceived information asymmetries between managers and investors – emphasised

by the “pecking order” theory – are less prevalent, making the cost of issuing public equity lower. In addition, there is strong evidence that equity issuance is to a significant extent related to stock market prices. A company’s managers, who usually hold more accurate information on the company’s expected profits, may issue equity in “hot markets” when stock market prices tend to be high and the relative cost of issuing the equity is therefore lower. Empirical evidence indicates that “hot markets” are partly caused by strong demand for funds for fixed and financial investment linked to buoyant profit expectations.

**Chart 4 IPO volume and investment growth in the euro area**

(EUR billions; percentage changes; quarterly data)



Sources: Eurostat and Thomson Financial Database.  
Notes: The IPO volume series refers to gross issuance of IPOs by euro area non-financial corporations. The series are four-quarter centered moving averages.

#### REAL INVESTMENT NEEDS

While it is difficult to disentangle the different factors motivating a company’s decision to issue public equity, the economic cycle is likely to play a significant role. This is mainly because equity is often used to finance demand for fixed investment, which fluctuates over the business cycle. Accordingly, demand for funds will be higher in periods of stronger demand for fixed investment owing to improved economic expectations.<sup>9</sup> Chart 4 shows the evolution of IPO volumes and of gross fixed capital formation in the euro area. Despite the increase

<sup>9</sup> Recent empirical studies suggest that equity issuance is related to increases in investment at both the micro and the macro level. See Lowry M., “Why does IPO volume fluctuate so much?”, *Journal of Financial Economics*, Vol. 67, Issue 1, pp. 3-40 and Kim W. and M. S. Weisbach (2005), “Do firms go public to raise capital?”, National Bureau of Economic Research, Working Paper 11197.



in gross fixed capital formation from 1994 to 1998, equity issuance remained subdued in the euro area. The relationship between equity issuance and real economic activity seems to have intensified somewhat in recent years. At the same time, equity issuance seems to lag behind gross fixed capital formation to some extent. Overall, swings in IPO issuance have been much more pronounced than changes in capital expenditure, suggesting that other factors on top of funding needs for fixed capital investment might be at work to explain equity issuance.

#### MARKET TIMING AND INVESTOR SENTIMENT

As indicated above, there could be an incentive for firms to “time” the market and issue equity when stock market prices are particularly high. This would partly explain one characteristic phenomenon of the equity market, namely the long-term underperformance of companies doing IPOs as compared with similar companies in terms of size and sector.<sup>10</sup>

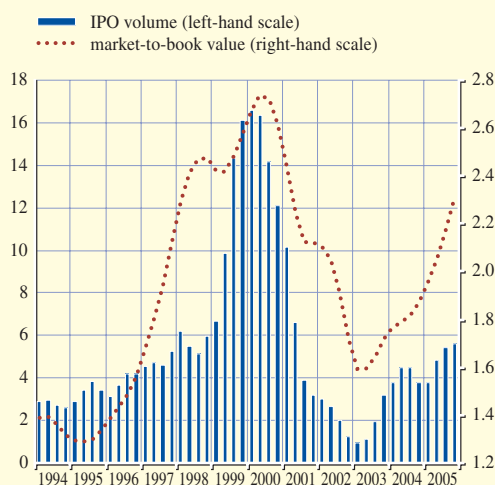
Chart 5 shows that the volume of euro area IPO issuance mirrored developments in the market-to-book value of the broad stock market index. Furthermore, significant increases in stock market prices generally preceded increases in equity issuance. It seems that the significant declines in the market-to-book value in 2001 and 2002 contributed to bringing equity issuance almost to a halt during that period. The reason for these parallel developments could be that managers issue equity primarily when they consider that the market values the company's shares at an appropriate, or excessively high, level.<sup>11</sup> In the first instance, managers' views are aligned with those of investors; stock market prices accurately reflect positive economic news (such as a positive productivity shock), which

10 It also explains the typically negative stock market reaction to announcements of SPOs. For an overview, see Ritter J.R. (2003), “Investment banking and securities issuance”, *Handbook of the Economics of Finance*.

11 See Baker, M. and J. Wurgler (2002), “Market timing and capital structure”, *The Journal of Finance* Vol. 57, Issue 1, pp. 1-32. For a more cautious view, see also Dittmar, A. and A. Thakor (2006), “Why do firms issue equity”, *The Journal of Finance*, forthcoming.

**Chart 5 IPO volume and market-to-book value of the broad stock market index in the euro area**

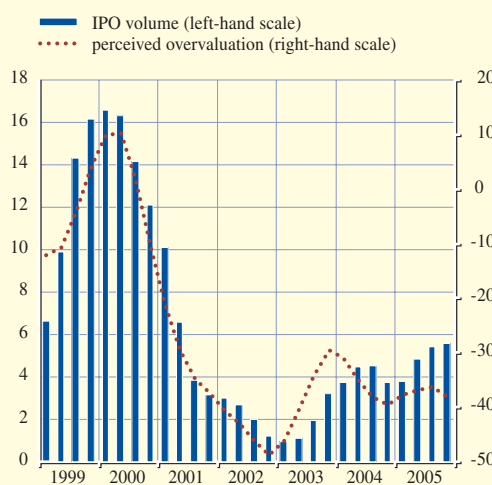
(EUR billions; ratios; quarterly data)



Sources: Datastream and Thomson Financial Database.  
 Notes: The IPO volume series refers to gross issuance of IPOs by euro area non-financial corporations. The market-to-book value refers to the datastream broad euro area non-financial stock market index. The series are four-quarter centered moving averages.

**Chart 6 IPO volume and investors' perception of stock market valuation in the euro area**

(EUR billions; net percentages; quarterly data)



Sources: ECB calculations and Merrill Lynch Regional Fund Manager Survey.  
 Notes: The perceived overvaluation series is based on a survey among euro area fund managers and refers to the net percentage of managers perceiving the euro area stock markets to be overvalued. The IPO volume series refers to gross issuance of IPOs by euro area non-financial corporations. The series are four-quarter centered moving averages.

encourages both higher equity prices and equity issuance. In the second instance, the increase in equity issuance could partly be a result of improved economic expectations and partly of excessive stock market prices which, to some extent, can be affected by investor irrationality.

Whether the high market-to-book values should be interpreted as an overvaluation, and hence a reason in itself for firms to go public, is an intrinsically difficult question to answer. Chart 6 shows that IPO issuance in the euro area is closely correlated with the net percentage of fund managers perceiving the euro area stock markets to be overvalued. The net percentage of fund managers believing the euro area stock markets to be overvalued increased in 1999 and 2000, before declining in parallel with the drop in stock market prices and equity issuance in 2001 and 2002. In recent years, fund managers have continued to believe that the stock market is undervalued.

A related factor explaining the timing of equity issuance is the effect of investor sentiment. Developments in investor optimism over time may have an impact on the cost of equity, thereby

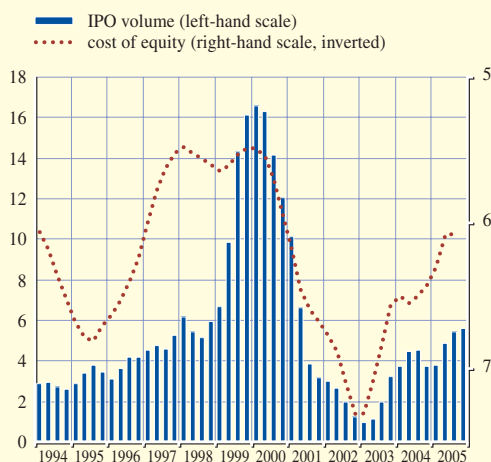
influencing the amount of equity issued. For example, excessive increases in risk aversion resulting in falling stock market prices could raise the cost of equity, thereby dissuading companies from issuing equity. Although investor sentiment will inevitably change over time, it is difficult to measure risk aversion empirically, and/or investors' willingness to invest in the stock market.

The above factors all affect the cost of equity finance. In particular, improved investor sentiment, more positive economic expectations and higher stock market prices all reduce the cost of issuing equity. Although the exact cost of equity finance cannot be measured (mainly owing to uncertainty regarding future corporate earnings), the ECB regularly makes an estimation on the basis of the three-stage dividend discount model and analysts' earnings forecasts.<sup>12</sup> Chart 7 depicts this estimation,

<sup>12</sup> See the box entitled "A three-stage dividend discount model for the euro area" in the article "Extracting information from financial asset prices" in the November 2004 issue of the Monthly Bulletin. See also the box entitled "The cost of equity in the euro area and the United States" in the September 2005 issue of the Monthly Bulletin.

**Chart 7 IPO volume and cost of equity**

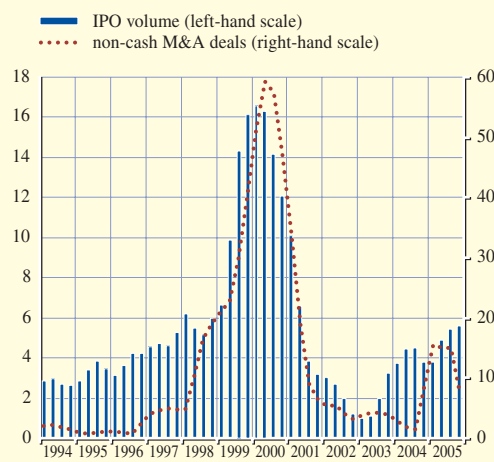
(EUR billions; percentages per annum; quarterly data)



Source: Thomson Financial Database.  
 Notes: The IPO volume series refers to gross issuance of IPOs by euro area non-financial corporations. The series are four-quarter centered moving averages.

**Chart 8 IPO volume and non-cash-financed mergers and acquisitions in the euro area**

(EUR billions; quarterly data)



Source: Thomson Financial Database.  
 Notes: The IPO volume series refers to gross issuance of IPOs by euro area non-financial corporations. The series are four-quarter centered moving averages.

together with IPO issuance. As expected, periods during which the cost of equity was high coincided with very low equity issuance activity. This was particularly the case from 2001 to 2003, when the cost of equity issuance increased significantly.

## MERGERS AND ACQUISITIONS

Companies also issue equity in order to finance the acquisition of other companies, either by using the cash proceeds of public offerings or by issuing shares which are subsequently exchanged for the shares of a target company. Consequently, merger and acquisition (M&A) cycles can also be expected to correlate with equity issuance activity; recent empirical evidence suggests that the majority of companies that list their shares on a stock exchange use part of the proceeds to finance M&A activity.<sup>13</sup> In support of this, Chart 8 indicates that equity-financed M&A activity in the euro area closely mirrors equity issuance. At the same time, however, M&A activity is also driven by some of the same fundamental factors underlying equity issuance, such as developments in stock market prices and investor confidence cycles.<sup>14</sup>

## 5 CONCLUSION

The ability to raise equity capital plays a key and strategic role in companies' financing and investment decisions. This article has reviewed developments in equity markets in the euro area over the last 12 years. The euro area equity market has exhibited strong cyclicity: a spectacular rise in equity issuance in the late 1990s and early 2000s was followed by an equally dramatic fall in subsequent years. While it is difficult to disentangle the different reasons why a company decides to issue public equity, one of the motivating factors is the need to raise finance for real investment, in particular in high growth sectors. In addition, investors' aversion to risk and the correlation between the timing of equity issuance and periods of high stock market prices are also likely to have had a

significant influence on the volume of equity issuance over the last 12 years. Finally, proceeds from equity issuance seem, in many instances, to have been directed towards financing M&A activity.

13 Indeed recent evidence from the United States suggests that the main motivation for corporations to "go public" is to finance acquisitions. See Brau, J. and S. Fawcett (2006), "Initial public offerings: An analysis of theory and practice", *The Journal of Finance*, Vol. 61, Issue 1, pp. 399 - 436.

14 See Lamont, O. A. and J. C. Stein (2005), "Investor sentiment and corporate finance: micro and macro", National Bureau of Economic Research, Working Paper 11882.