Characteristics of corporate finance in the euro area

This article analyses the development of the use of external sources of corporate finance in the euro area. The general picture that emerges is that there has been a significant increase in loans and the issuance of corporate debt securities in this region in recent years. In addition, listings of high-growth companies on specialised stock exchanges and the use of venture capital have grown considerably in the euro area. This would seem to reflect increasing sophistication in and diversification by the corporate sector in the euro area with regard to its sources of external finance. Despite the strong growth in loans and debt securities in recent years, the share of debt in the total liabilities of non-financial corporations did not increase between 1997 and 1999 as it was more than offset by the rise in the value of shares and other equity. An increased reliance on securities in the external financing of the corporate sector may have implications for the monetary policy transmission mechanism.

1 Introduction

Non-financial corporations regularly need to take decisions on how they finance their operations, a subject known as corporate finance. Companies can acquire the funds they need to finance long-term investments and short-term expenses in a number of ways. First, they have to decide between internal sources of finance, such as retained earnings, and external finance. Second, if a firm decides to finance its operations by raising funds from external sources, it has to choose between debt and equity finance. Third, when deciding between different forms of debt financing, companies can either issue debt securities or obtain credit from banks or other institutions (see Box 1).

Developments in the overall or macro-financial structure have a major impact on the corporate finance options available to non-financial corporations. In economies with well-developed capital markets, it is relatively easy for non-financial corporations to resort to financing sources other than bank loans, for instance by issuing securities. By contrast, in economies where financial intermediaries occupy a dominant position in the financial system, the corporate sector may depend primarily on loans for its external finance. Certain institutional aspects of the financial structure of an economy, such as a well-developed legal framework that protects outside investors as well as clear and transparent accounting standards, may contribute significantly to widening the sources of finance available to non-financial corporations.

The macro-financial structure of an economy can significantly affect economic growth. In general, a well-developed financial structure should improve the efficiency of financing decisions, favouring a better allocation of resources and thereby economic growth. In addition, economic growth may benefit from macro-financial structures that allow for the provision of risk capital such as venture capital by financial intermediaries.

This article discusses corporate finance from a theoretical perspective and the specific use of various external sources of corporate finance in the euro area. It also considers the implications of the specific pattern of external corporate financing in the euro area for monetary policy. Finally, some general conclusions are drawn.

Box 1

Instruments of external corporate finance

The main forms of external corporate finance are debt and equity. Debt consists of financial claims of external parties that have to be repaid by the company in specific amounts at an agreed interest rate. Equity constitutes a claim on the future profits of the firm for the providers of these funds – the shareholders. Unlike debt, equity does not have to be repaid.

The main forms of debt are loans – usually from banks – and debt securities. Debt securities can be privately or publicly placed with investors. In the case of private placements, debt securities cannot be traded easily on the financial markets, as they are placed with specific investors. In the case of publicly issued debt securities, the trading opportunities are much greater (marketable debt securities). Another distinction has to do with the maturity of the instruments. Publicly issued debt securities with an original maturity of less than one year are usually referred to as commercial paper, while debt securities issued with an original maturity over one year are known as corporate bonds. The interest paid on debt securities reflects, inter alia, differences in the creditworthiness of the respective issuers, which in turn reflects their prospective ability to meet the principal and interest payments of the debt issued. In general, debt securities are defined according to the creditworthiness attributed to them by rating agencies. A common distinction is between investment grade and sub-investment grade (or high-yield) debt securities. The creditworthiness and the ratings of debt securities depend, among other things, on the guarantees that are attached to these instruments. For instance, debt that is secured by collateral, such as real estate in the case of a mortgage, normally has a better rating than unsecured debt, all other things being equal. Finally, companies also finance their activities by resorting to trade credits and advances, which are financial claims arising from the direct extension of credit by suppliers and buyers of goods and services.

Equity can also be issued privately or publicly. In the former case, it can take the form of unquoted shares and venture capital, while, in the latter case, the shares are listed on a stock exchange (these are quoted shares). Private equity consists of equity investments in the unquoted securities of private and public firms. Venture capital is often provided by investors, such as specialised venture capital firms, as start-up money to finance new high-risk companies, such as those that specialise in new technologies, in return for equity ownership. Venture capitalists often obtain a seat on the boards of the firms in which they invest in order to exert influence over managerial decision-making. In order to enhance their reputation and for financing reasons, firms may decide at a given moment to substitute unquoted for quoted shares. The listing of a firm's shares on a stock exchange improves its access to the capital markets, as potential investors receive higher-quality information as a result of the improved transparency and disclosure of information required for the listing. In addition, this information often becomes publicly available at limited cost, enabling potential investors to improve their investment decisions. Furthermore, listed companies often have to meet certain financial performance criteria and accounting standards, which should increase investor confidence in the firm. Finally, once a company is listed, investors can follow its share price and consequently get a clearer picture of the company's investment potential. In most developed countries, specialised exchanges serving new or high-growth companies have been set up alongside the established stock exchanges. These new exchanges play an important role in providing high-risk capital for potentially highly successful companies that may face difficulties in obtaining funds from financial intermediaries such as banks.

There are also financial instruments which cannot be classified as equity or debt but have characteristics of both. These are called hybrid instruments. These instruments have become much more important in recent decades and some of them are also regarded as financial innovations, i.e. new financial instruments and techniques that aim to provide cheaper sources of corporate finance. Examples are convertible bonds and warrants. Convertible bonds give their owners the right to convert the bond into a certain number of shares in the issuing firm. Warrants provide their holders with the right to buy shares in a company at a certain price and are often attached to bonds. Derivatives are another type of financial innovation and have started to play an important role in corporate financing. In general, they are used by companies to hedge against market risks, such as interest rate and foreign exchange risks, or to adjust the features of their debt to the company's specific needs. The main kinds of derivatives are options, forward and futures contracts and swap agreements.

2 Corporate finance and financial structure

Corporate finance at the company level

Decisions on how to finance the operations of non-financial corporations affect the "capital structure" of companies. This structure has been the central focus of both theoretical and empirical studies on corporate finance. The foundations of the modern theory of corporate finance were laid down by Modigliani and Miller when, in 1958, they introduced their "capital structure irrelevance" hypothesis. This theorem claimed that the market value of a firm and its cost of capital are independent of its capital structure where information is "perfect" and there are no transaction costs or taxes. In other words, any combination of debt and equity would be as good as any other.

Following this, a large number of studies investigated the consequences of relaxing the assumptions put forward by Modigliani and Miller. This led to findings that under more realistic settings, non-financial corporations should target specific debt-to-equity ratios. For instance, in a situation where debt costs can be deducted when calculating corporate taxes, under certain assumptions specific higher debt-to-equity ratios can raise the value of the company. However, there are also limits to the level of indebtedness of a firm. In particular, where debt reaches a certain level, the potential costs of bankruptcy have to be borne in mind. Thus, these theories would suggest that for each firm there is a certain amount of debt that is optimal.

Another important development in the theory of corporate finance was the recognition that, contrary to the Modigliani-Miller assumptions, financial markets and corporate financing decisions are characterised by agency costs and asymmetric information. Agency costs arise because of conflicts of interest between various groups of stakeholders, such as management, debt-holders and shareholders, and affect the capital structure of the firm. Asymmetric information refers to differences in knowledge between two parties, for example borrowers and lenders, that result in one having an information advantage over the other. The concepts of agency costs and asymmetric information are increasingly dominating the theory of corporate finance, and have become fundamental aspects of the financial decision-making process of non-financial corporations as well.

Asymmetric information may cause significant problems, referred to in the relevant literature as adverse selection and moral hazard.

Adverse selection results from information asymmetries that are related to the nature of the contract to be signed by prospective lenders and borrowers. For example, a provider of funds or lender is confronted with a large set of heterogeneous borrowers, some of which may have an incentive to default on the loan. Since the lender cannot distinguish clearly between various types of borrowers in advance, its lending behaviour may be affected by this lack of information: it might refuse to provide any funds to certain borrowers, even though the borrowers offer to pay the price it requires and may be perfectly capable of repaying the funds. This problem is particularly relevant for new and high-risk companies which have not yet established stable relationships with providers of funds and which cannot be monitored closely or accurately, as objective information on these companies is not often available. For well-established companies with long track records of performance and repayment that maintain long-term relationships with lenders, adverse selection problems may be insignificant.

Moral hazard arises from information asymmetries affecting the period after which a contract is signed. For example, after obtaining funds, a borrower may start to engage in risky activities that are potentially highly profitable, but which also reduce the

likelihood that the funds will be repaid to the lender. In such circumstances, a lender may decide not to provide funds or to reduce the amount of funds it provides to certain borrowers.

In general, information asymmetries, such as adverse selection and moral hazard, may influence the financing decisions of non-financial corporations and thus their capital structure. For example, such asymmetries may lead to a specific capital structure being chosen by insiders that provides information on the company to outside providers of funds and which may affect the value of the firm. Furthermore, there is a "pecking order" for sources of finance: internal finance comes first, followed by external financing, which is more expensive.

Macro-financial structure of the economy

The theories on corporate financing decisions at the company or micro level mentioned above have been related increasingly to the macro-financial structure of an economy. The financial structure can be defined as the whole setting of financial markets, financial instruments and financial institutions at a given point in time. Financial structures differ from country to country and also change over time in relation to the stages of economic development. In general, they are classified in terms of the significance of financing through financial intermediaries, which are mostly banks, or through financial markets. A financial structure in which banks predominate as financial intermediaries by collecting savings through deposits and providing the bulk of external funding to the non-financial sector is called a "bank-oriented" structure. At the other end of the spectrum is a "market or securities-oriented" financial structure in which market-based funding constitutes a significant source of funds for non-financial firms. In practice, financial structures are rarely either bank-based or market-based, but a combination of the two types, although their relative importance varies from economy to economy. This is due to a large number of factors, such as regulatory frameworks, technological innovations, monetary and fiscal policies, specific legal and accounting systems and other historically determined characteristics that differ from country to country.

The link between the literature on corporate finance and the optimal capital structure for a company, on the one hand, and investigations into the macro-financial structure, on the other, has been established via models of financial intermediation, which describe the effects of information asymmetries in financial markets on the allocation of funds and corporate financing decisions. These models assert that information problems may lead to inefficiencies in financial markets that have real effects on the economy and consequently affect the source of corporate finance chosen. For example, because of adverse selection problems, investors may not be able to assess the risk profile of companies that are issuing equity or debt securities and therefore may be somewhat reluctant to invest in these securities. Consequently, only investors that are less risk-averse, such as venture capital firms, invest in securities issued by new and high-risk companies.

Furthermore, the information problems associated with financing through financial markets are an important factor in explaining why financial intermediaries exist. This is because financial intermediaries have developed the expertise to distinguish between those firms that may repay loans and those that may default, and so they can channel funds effectively and profitably from net savers to net investors. Banks and other financial intermediaries have gained experience in collecting information on prospective borrowers and in the screening and monitoring of investment projects, which mitigate costs, especially those related to adverse selection problems. At the same time, borrowers that have obtained good credit ratings may secure debt through the capital markets at lower costs than via financial intermediaries, as investors are willing to pay a higher price for their creditworthiness.

Furthermore, financial intermediaries may be more risk-averse than those investors who attach less importance to adverse selection problems. Such intermediaries may thus refuse to provide loans to certain borrowers and force them to obtain funds through the issuance of high-yield bonds which are bought by less risk-averse investors. Thus, financial intermediaries and financial markets perform financing functions for various types of non-financial corporations according to their assessment of the costs arising from adverse selection and moral hazard problems in addition to other factors.

The prevalence of information asymmetries at the level of the macro-financial structure can be affected by various factors. For example, a well-developed accounting system combined with a relatively high degree of disclosure may encourage the use of market-based financing, as information on firms is more readily available to investors at relatively low cost. Differences in financial regulatory frameworks and legal sanctions may influence the provision of information to financial markets and consequently stimulate the development of the financial structure towards a dominance of either market-based or bank-based finance. Thus, the specific forms of corporate finance and the nature of the financial structure are influenced by various institutional characteristics of a specific economic system. This also implies that, to some extent, the financing decisions of non-financial corporations may be influenced by government policies that affect these characteristics.

3 Sources of finance and financial structure in the euro area

Differences in the structure of corporate liabilities in the euro area, the United States and Japan

The statistical basis for analysing corporate finance in the euro area is still incomplete. Currently available information is limited to external finance. Table 1 shows national financial accounts data for non-financial corporations in the euro area and compares them with data for the United States and Japan. For the euro area, national financial accounts data have been aggregated for eight Member States. No data are included yet for Greece, Ireland, Luxembourg and Portugal. Box 2 provides an overview of the statistical concepts and the plans for developing further the statistical basis.

As can be seen in Table 1, shares and other equity (at market values) are the main liability for euro area non-financial corporations, followed by loans. Equities are also the dominant liability in the United States, while debt securities play a more important role than loans there. In Japan, loans are the most important liability. The development in shares and other equity as a percentage of liabilities depends significantly on the development of share prices. Thus, the development in this ratio is influenced by the strong rise in share prices from 1997 to 1999 in the euro area and in the United States.

As noted above, loans are the main debt financing instrument of non-financial corporations located in the euro area. The share of loans, including those granted by non-MFIs, in the liabilities of the euro area non-financial corporate sector is less important than in Japan, but significantly higher than in the United States. Within loans, those granted by euro area MFIs are the most important. As for other forms of debt financing, trade credits and advances play a relatively important role in the euro area, similar to that in Japan and the United States. Debt financing in the form of securities other than shares had, in 1999, only a small share in the total liabilities of euro area non-financial corporations in terms of amounts outstanding. By contrast, this form of financing was more important in the United States and Japan.

Table 1

Financing structure of non-financial corporations in the euro area, the United States and Japan

(end of period; percentage of total liabilities)

	Euro area			United States	Japan
	1997	1998	1999	1999	1999
Liabilities	100.0	100.0	100.0	100.0	100.0
Loans	30.0	27.2	23.3	5.4	38.9
of which:					
granted by euro area MFIs	21.3	19.5	16.2	-	-
granted by euro area non-monetary financial institutions	1.9	1.7	1.4	-	-
granted by other euro area sectors and by the rest of the world	6.8	6.0	5.8	-	-
Trade credit and advance payments received	10.7	9.8	8.3	7.8	12.4
Securities other than shares	3.1	2.8	2.4	10.6	9.4
Shares and other equity	51.7	56.3	62.6	70.2	33.8
of which: quoted shares	*19.6*	*22.0*	*26.3*	-	-
Other liabilities	4.5	3.9	3.3	6.1	5.5

Sources: ECB, Board of Governors of the Federal Reserve System and Bank of Japan.
Note: Non-consolidated data which cover all external financing instruments taken by non-financial corporations from other resident sectors including non-financial corporations and from abroad; debt securities and shares are valued at market prices.

Finally, with respect to maturity structures, it is notable that most of the corporate lending from MFIs in the euro area is long term (see Table 3). In September 2000, more than 70% of all outstanding loans had an original maturity of more than one year, with more than 50% of all loans having a maturity of more than five years. Similarly high is the share of non-financial corporations' outstanding debt securities with a maturity of more than one year in their total outstanding debt securities (see Table 4).

Trends over recent years dominated by high growth rates for loans and debt securities

Balance sheet data as shown in Table 1 provide a snapshot of the financing structure of non-financial corporations at a specific point in time. In particular shares and debt securities are influenced by valuation changes. For this reason, changes are best understood by looking at transactions data which do not include valuation effects (see Table 2).

As can be seen from Table 2, some notable changes have taken place in recent years in the euro area. First, the total annual external financing flows increased significantly between 1997 and 1999. Second, the flows were particularly pronounced in debt, with the flows in loans significantly exceeding the flows in shares and other equity. Third, a considerable rise was observed in the issuance of new debt securities over the period, with the highest growth rates in the amounts outstanding of all forms of finance. Thus the flow data in Table 2 give a different picture than the changes in the balance sheet in Table 1.

Interpreting these developments in conjunction with the information in Table 1, it can be seen that the higher recourse to loans and debt securities in recent years did not result in an increase in the share of these debt instruments in total corporate liabilities. As noted above, this can be partly explained by the considerable rise in share prices between 1997 and 1999. The increase in share prices led to a substantial increase in the value of the amounts outstanding of shares and other equity which are shown in Table 1. This valuation effect resulted in a decline in the share of loans and debt securities

Box 2

Corporate finance in national accounts

Corporate finance in national accounts relates to the sector "non-financial corporations" defined in the European system (Council Regulation (EC) No. 2223/96 of June 1996 on the European system of national and regional accounts in the Community (ESA 95)). This sector covers all bodies recognised as independent legal entities which are market producers and the principal activity of which is the production of goods and non-financial services.

The ESA 95 records flows and stocks in an ordered set of accounts describing the economic cycle from the generation of income to its distribution, redistribution, and accumulation in the form of assets and liabilities. The flows of assets and liabilities are seen again in the changes in the balance sheet showing the total assets, liabilities and net worth reflected in the capital account, the financial account, the other changes in the volume of assets account and the revaluation account.

Changes in assets and liabilities reflected in the flow accounts for non-financial corporations

Changes in assets	**Changes in liabilities**	
Capital account		
Acquisition of non-financial assets	**Internal sources of corporate finance**	Saving, net Net capital transfers (receivable minus payable)
Financial account		
Net acquisition of financial assets	**External sources of corporate finance** (by financial instrument)	Loans Trade credit and advance payments received Securities other than shares Shares and other equity Other liabilities (deposits, insurance technical reserves and other)
Other changes in the volume of assets account and the revaluation account		

All forms of corporate finance are shown in the changes on the liabilities side of the non-financial corporations' capital and financial account. **Internal sources** of corporate finance relate to the change in net worth due to saving and capital transfers which are part of the capital account. **External sources** of corporate finance are shown under net incurrence of liabilities in the financial account. The financial account is usually broken down by financial instrument. Further breakdowns refer to the original maturity of some instruments. Major external financial instruments of non-financial corporations are loans, trade credit and advance payments received, securities other than shares and shares and other equity.

While both the capital and financial account comprise transactions, other changes to the corporate sector balance sheet may relate to mergers and acquisitions, reclassifications, or holding gains and losses. These changes are recorded under the heading "Other changes in the volume of assets account and revaluation account".

To reflect appropriately the financing structure of euro area non-financial corporations, non-consolidated data are provided. They cover all external financing instruments taken by euro area non-financial corporations, including financial resources provided by other non-financial corporations in the euro area and abroad.

At present, only data for external financing of the corporate sector are available. Data on internal finance as well as financial balance sheet data for the corporate sector are expected to become available in the course of 2001.

Table 2

External financing transactions of non-financial corporations in the euro area, the United States and Japan

(EUR billions)

	Euro area			United States	Japan
	1997	1998	1999	1999	1999
Liabilities	339.3	489.2	625.0	767.0	-117.8
Loans	145.0	230.2	329.3	149.7	-113.1
Trade credit and advance payments received	58.8	63.6	68.6	165.7	-48.3
Securities other than shares	12.1	18.1	37.3	255.3	-11.1
Shares and other equity	95.5	173.9	147.2	96.5	61.7
of which: quoted shares	*62.2*	*85.8*	*89.3*	-	-
Other liabilities	27.9	3.4	42.7	99.8	-6.9

Source: ECB, Board of Governors of the Federal Reserve System and Bank of Japan.
Note: Non-consolidated data (see note to Table 1); net borrowing (+), net repayments (-).

in the overall liabilities of the corporate sector when measured at market values. Thus, while the recourse to loans and debt securities in recent years may have resulted in a higher ratio of corporate debt to GDP, it has not resulted in a rise in the debt to equity ratio of the liabilities of the euro area corporate sector measured at market values.

The following analysis looks at these changes in more detail.

Debt financing

As regards external finance in the form of loans granted by MFIs, loans to non-financial corporations increased in terms of year-on-year growth rates by between 7% and 8% in 1998 and 1999 (see Table 3). In 2000 the growth of these loans increased further, reaching 12.3% in September 2000. The trend of increasing growth of loans to non-financial corporations in this period initially reflected the decline in bank lending interest rates that the convergence leading up to Stage Three of EMU brought about in the euro area. In addition, the high growth of loans was also related to the financing of mergers and acquisitions and, after mid-1999, the strengthening of economic activity in the euro area. Most recently, it was significantly influenced by the financing of UMTS licences by telecommunications companies.

Table 3

MFI loans to non-financial corporations in the euro area

(original maturity; annual percentage changes)

		Amounts outstanding				Annual growth rates [1]			
		Total	Up to 1 year	Over 1 year and up to 5 years	Over 5 years	Total	Up to 1 year	Over 1 year and up to 5 years	Over 5 years
		EUR billions	% of total amounts	% of total amounts	% of total amounts				
1997	Dec.	2135.1	35.8	14.5	57.4	-	-	-	-
1998	Dec.	2286.8	35.6	13.8	57.6	7.6	6.6	2.4	9.9
1999	Dec.	2419.1	35.4	15.4	57.4	7.8	7.0	11.2	7.4
2000	Sep.	2628.6	35.9	16.1	56.5	12.3	14.3	16.3	9.6

Source: ECB.
1) Growth rates are calculated on the basis of flow data whenever available.

Table 4

Maturity structure of debt securities issued by non-financial corporations in the euro area

(Original maturity; annual percentage changes)

	Amounts outstanding			Annual growth rates [1]		
	Total	Up to 1 year	Over 1 year	Total	Up to 1 year	Over 1 year
	EUR billions	% of total amounts	% of total amounts			
1994	275.4	19.4	80.6	3.6	-11.2	7.9
1995	284.6	17.2	82.8	3.4	-8.4	6.3
1996	285.9	18.6	81.4	0.5	8.7	-1.2
1997	289.7	19.7	80.3	1.3	7.5	-0.1
1998	297.1	20.5	79.5	2.6	6.6	1.6
1999	331.8	22.1	77.9	11.6	20.5	9.4
2000 Sep.	401.9	24.0	73.4	16.9	25.7	14.3

Source: ECB.
1) Growth rates are calculated on the basis of stock data.

In respect of securitised debt, the historical series on debt securities issuance of the ECB has recently become available (see Box 3). As Table 4 shows, the introduction of the euro has acted as a catalyst for debt securities financing by the non-financial corporate sector. The year-on-year growth rates of debt securities issuance by non-financial corporations increased substantially in 1999 and 2000. In addition to the influence of the introduction of the euro, debt securities issuance by private non-financial corporations has been driven by the process of corporate restructuring and related merger and acquisition activity in the euro area, changes in the investment behaviour of institutional investors (which have increasingly invested in higher-yield bonds), and the robust pace of economic activity in the euro area. The issuance of debt securities in 2000 was also stimulated by the financing of UMTS licences, partly through non-monetary financial subsidiaries of telecommunications companies.

Box 3

Statistics on debt securities issues in the euro area

Debt securities issues statistics

The ECB monthly euro area securities issues statistics are published in Tables 3.5 and 3.6 of the "Euro area statistics" section of the ECB Monthly Bulletin. Furthermore, in February 2001 the ECB released monthly historical debt securities issues statistics starting from January 1990. These statistics – produced by the Eurosystem – cover securities other than shares, i.e. debt securities. These are negotiable and traded on secondary markets. They do not grant the holder any ownership rights over the issuer. Money market paper and, in principle, private placements are included in the debt securities statistics. The ECB securities issues statistics are estimated to cover approximately 95% of total debt securities issued by euro area residents.

The ECB methodological framework on securities statistics follows, wherever possible, the guidelines and recommendations set out in the European System of Accounts 1995 (ESA 95).

The euro area securities issues statistics distinguish between security-issuing units located in the euro area and those outside. Issues by foreign-owned entities located in the euro area are classified as issues by euro area residents. Conversely, issues by entities located outside the euro area which are owned by euro area residents are treated as issues by non-residents of the euro area.

The ECB's securities issues statistics include a breakdown of issuers by sector. For euro area residents, this breakdown is in line with the ESA 95, and distinguishes primarily between five types of issuers, of which non-financial corporations, the subject of this article, is one.

Statistics on securities issues are also broken down by maturity at issue into short-term securities and long-term securities. Short-term securities generally have an original maturity of one year or less. All other issues, including those with optional or indefinite maturity dates, are classified as being long-term.

The currency of issuance refers to the currency denomination of the security. The euro area securities issues statistics cover securities denominated in euro (or remaining national denominations of the euro) as well as securities denominated in currencies other than the euro. Prior to January 1999 issues in euro refer to items expressed in the national currencies of the first 11 countries to introduce the euro or denominated in ECU.

The euro area securities issues statistics cover stocks (amounts outstanding) and flows (gross issuance, redemptions and net issuance). The amount outstanding is the stock of securities at the end of the period. Gross issues cover all new issues for cash. Redemptions comprise all repayments by the issuer for cash, whether at maturity or earlier. Net issues are gross issues minus redemptions during the same period. In principle, they correspond to the changes in amounts outstanding between two periods, though differences may arise from valuation changes, reclassifications and other adjustments during the periods.

Equity financing

As regards equity financing, Table 5 shows the total net amount of shares and other equity raised by non-financial corporations between 1997 and 1999. This amount increased from €95.5 billion in 1997 to €173.9 billion in 1998, but decreased to €147.2 billion in 1999. The latter decrease was due to a significant drop in the net issuance of unquoted shares and other equity from €88.1 billion in 1998 to €57.9 billion in 1999. Indeed, the net issuance of shares listed on stock exchanges (i.e. quoted shares) by non-financial corporations actually increased from €85.8 billion in 1998 to €89.3 billion in 1999. Thus, the data show that non-financial corporations in the euro area increasingly resorted to issuing quoted equity

Table 5

Equity financing of euro area non-financial corporations

(EUR billions)

	Net issuance of shares			Memorandum item [1] Gross issuance of quoted shares of all corporations		
	Shares and other equity	of which quoted	of which unquoted and other equity	Total amount of new capital raised	Gross amount of new capital raised by already listed corporations	Gross amount of new capital raised by newly listed corporations
1995	-	-	-	84.1	61.7	22.4
1996	-	-	-	72.0	42.6	29.4
1997	95.5	62.2	33.3	76.2	47.3	28.9
1998	173.9	85.8	88.1	146.8	96.3	50.5
1999	147.2	89.3	57.9	240.8	150.7	90.1

Source: ECB.

1) *International Federation of Stock Exchanges (FIBV) data. The FIBV equities issues statistics cover approximately 97% of world stock market capitalisation and include financial corporations. The FIBV collects the number of domestic and foreign companies listed on national exchanges. When a domestic company is listed on more than one national exchange, it is counted once. When a company is listed in several countries, it may be counted more than once.*

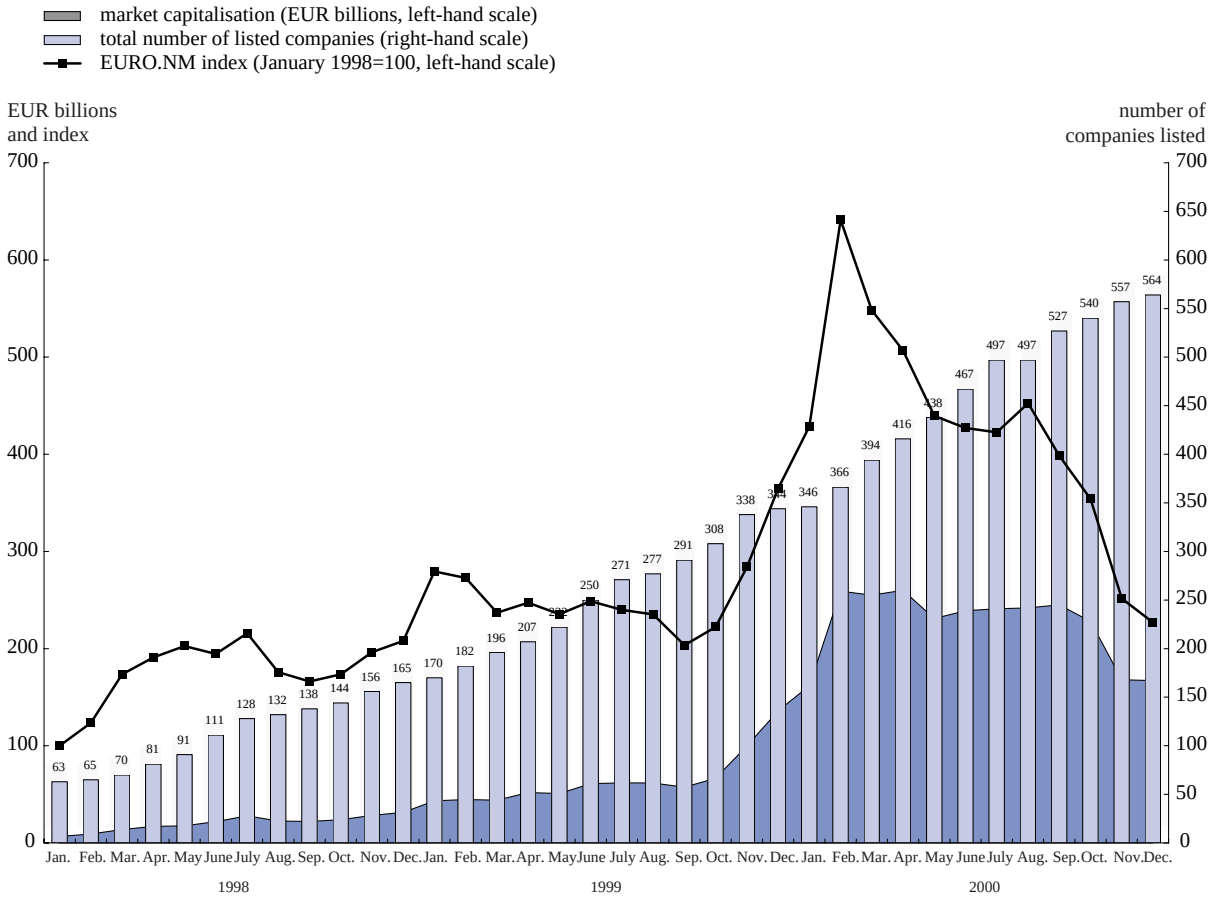
in 1999. In general, as is shown in Table 5 by the International Federation of Stock Exchanges (FIBV) equity issues statistics, gross issuance of quoted shares by all corporations, i.e. including financial corporations, has been growing since the mid-1990s in the euro area.

In recent years, specialised stock markets for "growth" companies have become a growing market segment for the issuance of quoted shares. In general, equity financing is particularly advantageous or even essential for the financing of innovative firms, as banks may be reluctant to provide loans due to the risk profile of these firms. Thus, for these new and high-risk firms, financing through specialised stock exchanges is of particular importance because of the existence of information asymmetries and agency costs.

The market capitalisation and the number of companies that were listed on the EURO.NM market are shown in Chart 1. EURO.NM, a pan-European group of five exchanges providing equity capital for new and high-risk companies, ceased to exist in December 2000, but the participating national high-growth stock exchanges will continue to provide equity financing for start-ups. Equity financing is particularly strong in the new markets segment. Total market capitalisation in these new markets grew from €7 billion at the beginning of 1998 to €167 billion in December 2000. While some of this increase can be attributed to the overall rise in share prices during this period (see the development of the EURO.NM index in Chart 1), it is important to note that the number of listed companies continued to

Chart 1

Market capitalisation and number of listed companies in the EURO.NM market [1)]



Source: EURO.NM.

increase in almost every month. The total number of companies listed on the EURO.NM, which were mainly non-financial and high-tech firms, increased from 63 at the end of January 1998 to 564 at the end of December 2000.

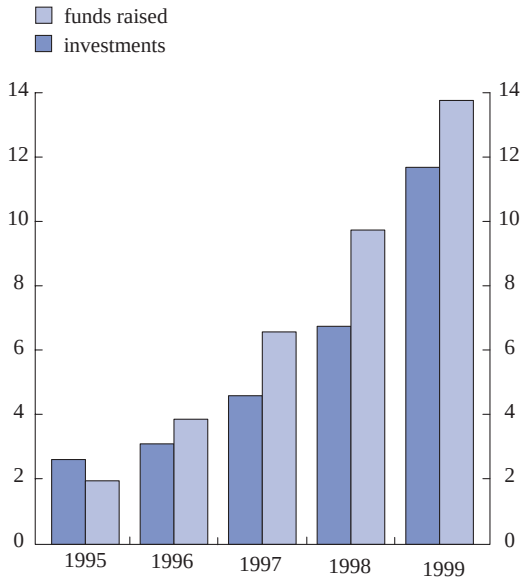
In addition to traditional or public equity financing, venture capital financing has grown significantly in recent years, even though the overall amounts are still relatively low compared with the United States. As noted above, venture capital companies represent an important means of overcoming agency problems and information asymmetries that exist between lenders and borrowers and that are particularly significant for new and high-risk firms. Venture capital firms can collect and process information on new companies quite effectively, by using various control mechanisms, for example, gaining positions on the boards of these firms and obtaining substantial voting rights. While the data presented also include financial corporations, the amounts invested in this sector are only a small proportion of the total. As can be seen in Chart 2, the investments made by venture capitalists in euro area firms have risen more than fourfold between 1995 and 1999, with a particularly large increase, 71%, in 1999 compared with 1998. Venture capital firms actually raise more funds that they ultimately invest, although the difference between funds raised and invested decreased in 1999 compared with 1998.

In sum, there was a reduction in the share of debt as a proportion of total liabilities of non-financial corporations measured at market prices between 1997 and 1999, mainly due to the considerable rise in stock prices

Chart 2

Venture capital (funds raised and invested) in the euro area

(EUR billions)



Source: European Venture Capital Association (2000).

and despite strong growth in loans in recent years. At the same time, the non-financial corporate sector in the euro area has been acquiring a significant share of funds in the form of debt securities. Furthermore, there was a higher use of quoted shares in 1999 and it is apparent that some more specialised forms of public and private equity are being used as sources of external finance, in particular, shares listed at specialised exchanges for growth companies and venture capital. There are thus many indications of a tendency towards sophistication and diversification in the use of sources of corporate finance in the euro area. However, this process is still at an early stage and the euro area financial structure can still be considered to be dominated by bank loans and unquoted shares.

4 Implications for monetary policy

The dynamics of the evolution in the external financing flows of non-financial corporations in the euro area suggest that debt securities are playing a growing role in financing, even though they started from a low base by comparison with the United States. As regards equity, quoted shares gained importance in 1999. If developments towards increased reliance on securities were to continue they might affect the way monetary

policy decisions influence the economy. Therefore it seems appropriate to reflect on their implications for monetary policy in the euro area. These include: 1) a larger exposure of firms to swings in financial markets; 2) more competitive pricing of loans by banks; and 3) a greater importance of wealth effects.

Larger exposure of firms to swings in financial markets

The prices of financial instruments, such as corporate bonds and equities, are determined in a forward-looking manner, and, inter alia, incorporate the expectations of economic agents regarding future economic developments and premia for various risks. An increase in the exposure of corporations as a result of a higher share of debt securities and quoted shares would imply that companies' financing conditions might be affected more quickly by developments in financial markets than before.

More competitive pricing of loans by banks

If there are no major competitive pressures, the pricing of bank loans may not reflect market conditions. This behaviour tends to make the interest rate channel of the transmission mechanism of monetary policy weaker than in an economy where securities predominate.

If a liquid market for corporate securities develops, then corporations may go directly to the market and bypass banks. This should lead to more competitive pricing by banks. In the case of the euro area, some large firms with direct access to credit have been able to obtain finance from banks at rates similar to money market rates. In this context, a financial structure in which securities play a more important role in debt financing implies that changes in ECB interest rates are likely to affect bank lending interest rates more quickly.

Greater importance of wealth effects

Changes in interest rates may affect the prices of assets, be they financial instruments or real assets such as property, and thus the wealth of households and non-financial corporations. The importance of wealth effects depends on the absolute value and the composition of wealth, on the impact of monetary policy and on how changes in wealth affect consumption and investment decisions. If there is a move towards a greater importance of securities, companies and households are likely to increase the share of financial assets in the form of securities in their portfolios. Thus, changes in the financial structure towards greater recourse to securities markets are likely to reinforce the importance of wealth effects, as households and non-financial corporations will probably hold a larger share of their wealth in the form of financial market instruments such as corporate bonds or equity. However, this mechanism may be weakened by the fact that MFIs also hold debt securities and shares and other equity issued by non-financial corporations, implying that the exposure of other parts of the private sector to price fluctuations in such instruments is not keeping pace with developments in these markets. At present, it is clear that MFIs play a prominent role in external financing in the euro area and therefore developments in this sector need to be monitored carefully.

5 Concluding remarks

The relationship between corporate finance, financial structure and monetary policy is of considerable importance to the development of financial markets and economic growth, and has received much attention from both academics and policy-makers. Problems

caused by asymmetric information that exist on financial markets between borrowers and lenders may force certain borrowers to seek specific forms of finance and thus influence their capital structure and the cost of capital. In practice, these information problems combined with a large number of institutional, legal and historical characteristics determine the use of specific sources of corporate finance and the development of the financial structure of an economy. It is important to stress that a bank-oriented financial structure is neither more nor less efficient than a securities-based structure. Rather, it is the complementarity of financing options that contributes to economic efficiency.

As this article has shown, there are signs that non-financial corporations are increasingly resorting to securities-based finance, such as debt securities issuance and shares listed on both the mainstream and "high-growth" exchanges. In this development, the move towards and the introduction of the euro have acted as an important catalyst, especially with regard to the issuance of debt securities, improving the efficiency of the euro area capital markets and reducing existing information asymmetries to some extent. At the same time, loans continue to be an important source of net external financing for non-financial corporations in the euro area, in particular those extended by MFIs.

The analysis of corporate finance in the euro area is of relevance to monetary policy and also has implications for financial stability. If the financing of non-financial corporations through the issuance of securities continues to grow, this may imply a larger exposure of firms to developments in financial markets, may lead to more competitive pricing of loans by banks, and could render the economy more sensitive to wealth effects. The process of monetary transmission could be affected through all these channels.