Box 2

The relationship between intermediated and debt securities financing of non-financial corporations in the euro area

The euro area financial system is largely influenced by banks in the sense that a major part of the investment and financing decisions of the non-financial sectors are carried out through financial intermediaries, notably through banks (see ECB, *"Report on Financial Structures"*, October 2002). However, securities markets have been growing in importance over recent years and among the catalysts for this was the introduction of the euro, which enhanced the opportunities and incentives for larger euro area corporations to tap the corporate bond markets on an area-wide scale, paving the way for the opening up of this financing channel, which previously was relatively insignificant.

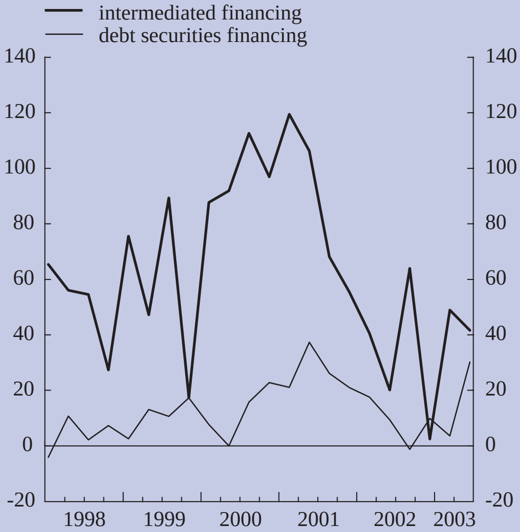
As financial systems become more diversified, they can, by providing multiple avenues of finance, enhance the stability of overall financing flows to corporations. This box analyses the extent to which the emergence of a euro area-wide corporate bond market has increased the sources of finance for euro area corporations, and hence whether the financial system has become sufficiently diverse to allow other segments to take over when difficulties in providing finance arise in one part of the system.

Apart from the introduction of the euro, the rapid development of the corporate debt market in the euro area in recent years was supported by a number of partly exogenous factors. In particular, the wave of mergers and acquisitions which occurred in the late 1990s and the acquisitions by telecommunications companies in the euro area of UMTS licences in 2000 generated large financing needs. As the market developed and deepened, it provided more and more large euro area companies with the capability of tapping the bond markets for funding.[1]

While the growth of the corporate bond market has given firms access to multiple means of obtaining finance, this development does not in itself imply that the euro area financial system has become more resilient to shocks. One possibility of assessing whether benefits from diversified financing sources have been reaped is to test whether different sources of finance have in the past balanced each other out on average over time or rather have moved together. Only in the former case can the stability that comes with diversification be obtained. A simple analysis can be employed to determine the extent to which the availability of both intermediated (defined as loans granted by Monetary Financial Institutions (MFIs) and non-monetary financial institutions) and more market-based (non-intermediated, i.e. mainly corporate bonds and equity) sources of finance enhance the stability of financing flows in the sense that these sources tend to balance each other out over time. In principle, if the volatility of both individual forms of debt finance were to be higher than the volatility of total debt financing, this would be an indication of a substitutive relationship between various forms of finance. In addition, if a low, or even negative, correlation is found between intermediated financing and non-intermediated financing, it would be an indication that the two sources of finance on average do not move in parallel over time.

Debt financing of non-financial corporations in the euro area

(quarterly flows, not seasonally adjusted)



Source: ECB.

Note: "Intermediated financing" is loans granted by MFIs and non-monetary financial intermediaries. "Debt securities financing" is debt finance obtained through the issuance of debt securities by euro area non financial corporations.

Focusing only on debt financing, the Chart shows the financing patterns of non-financial corporations in the euro area broken down by intermediated financing and debt securities financing over the last five years, based on quarterly financial accounts. Although intermediated financing has been the most important financing source for non-financial corporations over the period, debt securities financing has also been non-negligible. Furthermore, the different financing sources do not seem to show strong co-movements over the period 1997 Q4 to 2003 Q1. The Table shows the volatility and correlation of the two different debt financing sources

1 *See also Santillàn, J., M. Bayle and C. Thygesen (2000), "The impact of the euro on money and bond markets", ECB Occasional Paper No. 1, July.*

over that period. The volatility measure shown is the coefficient of variation.[2] In general, when interpreting these figures it should be borne in mind that the period for which data are available is relatively short.

As shown in the Table, the volatility measures for intermediated finance and debt securities financing are higher than for total debt financing. Furthermore the contemporaneous correlation results suggest that intermediated and debt securities financing on average did not move together strongly over the period 1997 Q4 to 2003 Q1, since the correlation between the two is not particularly high (0.19). The availability of multiple sources of finance is presumably most important with regard to short-term financing. In this respect, short-term intermediated and short-term debt securities financing have been even less correlated on a quarterly basis (0.09) than the overall intermediated and debt securities financing.[3]

These results suggest that the growth of the corporate bond market in the euro area, by acting as a supplement to loan financing, has helped to smoothen firms' access to debt financing by increasing their financing alternatives and has thus deepened the financial system.

The fact that intermediated financing has been less volatile than debt securities financing also suggests that loans have had a stabilising effect on overall debt financing in the euro area. The relatively volatile behaviour of debt securities financing may in part be explained by the expansion of the euro area corporate bond market during the period considered. While beneficial to the financial system in "normal" times, the corporate bond market in the euro area does not yet appear to be capable of providing a "spare wheel" in periods of subdued economic activity and poor financing conditions.

Volatility and correlation of quarterly financing flows, 1997 Q4 - 2003 Q1

	Total debt financing	Intermediated financing	Short-term intermediated financing	Debt securities financing	Short-term debt securities financing
Coefficient of variation [1)]	0.45	0.51	1.52	0.84	1.56
Total debt financing	1.00				
Intermediated financing	0.95	1.00			
Short-term intermediated financing	0.77	0.80	1.00		
Debt securities financing	0.47	0.19	0.16	1.00	
Short-term debt securities financing	0.21	-0.02	0.09	0.76	1.00

Source: ECB estimations.
1) Standard deviation divided by the mean.

Overall, MFIs, which account for the bulk of the intermediated lending to non-financial corporations, continue to play a crucial role in the euro area financial system. Indeed, MFI lending appeared to be the fallback option for many companies and, hence, the stabilising factor in corporate finance in the period 1997-2002. Furthermore, the availability of MFI financing contributed markedly to the development of the corporate bond market, since it provided the necessary "bridging loans" to corporations that later issued corporate bonds. While securities markets are becoming more important, they are unlikely to develop without the involvement of financial intermediaries, which act as providers of "insurance" to the markets. In addition, although large corporations may have increasingly turned to the capital markets to obtain funding, small and medium-sized enterprises, which dominate the euro area economy, are still heavily reliant on intermediated financing. Thus, while there is some supportive evidence that corporate bond finance has gained importance, intermediated financing remains the stabilising factor and hence the fallback option for most euro area firms.

2 This is the standard deviation divided by the mean. This metric of volatility allows series of different magnitudes to be more readily compared than by using standard deviations.
3 See also de Bondt, G. (2002), "Euro area corporate debt securities market: first empirical evidence", ECB Working Paper No. 164.