International diversification of investments in Belgium and its effects on the main Belgian securities markets

Thierry Timmermans

1. Introduction

The international diversification of investments is far from being a recent phenomenon in Belgium. Over the past 20 years, individuals markedly stepped up their purchases of foreign currency denominated assets such that, on the eve of EMU, these assets represented a greater share of private wealth than in most other European countries. The introduction of the euro should, however, provide fresh impetus to and a broader base for this process of diversifying out of domestic assets. This is bound to have profound repercussions on the Belgian financial markets, in particular the government securities market and the stock market. These markets will not be able to benefit to the same extent as in the past from a stable core of captive investors, and it is far from certain that this reduced interest on the part of traditional customers can be fully offset by increased purchases by investors from other euro area countries.

The first part of this note provides a snapshot of the current degree of international diversification of financial assets and liabilities in Belgium. The second and third parts examine the present and future implications of the introduction of the euro on the government securities market and the stock market respectively, and briefly describe the adjustments envisaged by these two markets.

2. International diversification of financial assets and liabilities in Belgium

The very high saving rate among Belgian individuals has been reflected in an accumulation of financial assets, which at end-1998 totalled close to three times GDP. How these savings are invested obviously exerts a powerful influence on the structure of Belgian financial markets.

In this context, there have been two major developments over the last 20 years. First, the overall share of financial assets in foreign currency rose from 7% in 1980 to 23% in 1998 (Table 1). Second, the role of banks in attracting savings declined markedly during the same period, with banks' market share falling from 60% to 37% in favour of direct purchases of securities and, above all, investments with institutional investors, in particular collective investment undertakings (UCITS).

It is interesting to note that these two developments were not independent but, on the contrary, went hand in hand. The diversification of individuals' investments into foreign currency occurred to a much greater extent via investments with institutional investors and direct purchases of securities than via more traditional financial intermediaries such as banks.

This does not, however, mean that financial intermediaries have not played any accompanying role in this development. Almost all UCITS are set up, administered and marketed by Belgian banks, which thereby manage to recuperate, in the form of fee income, the falls in revenue resulting from the contraction in their intermediation income. The diversification opportunities and professional management offered by these funds have greatly facilitated the growth of individuals' foreign currency investments. At the same time, however, this interest in foreign currency denominated assets has also been reflected in a rise in direct purchases of securities.

This diversification of investments, be it by channel or currency, has not been driven by the purely financial consideration of attaining a better risk-return combination. It has also had a fiscal motive as a means of escaping the withholding tax on investment income. As individuals' capital gains are not

taxed in Belgium, investments via UCITS are de jure exempt from withholding tax insofar as the UCITS do not distribute their income but capitalise it. A de facto exemption exists for direct purchases of securities abroad in that the beneficiary can then easily omit to declare his income to the Belgian authorities.

Table 1
Structure of financial assets held by individuals[1]
(as a percentage of the total)

	1980	1998
Investments with credit institutions	**60.4**	**36.9**
of which: share in francs	97.6	93.0
share in foreign currency	2.4	7.0
Investments with insurance companies and pension funds[2]	**7.3**	**11.8**
of which: share in francs	91.9	82.4
share in foreign currency	8.1	17.6
Investments with UCITS[2]	**0.5**	**14.1**
of which: share in francs		48.3
share in foreign currency		51.7
Direct purchases of securities	**31.9**	**37.3**
of which: share in francs	78.3	63.5
share in foreign currency	21.7	36.5
Total	**100.0**	**100.0**
of which: share in francs	92.6	76.7
share in foreign currency	7.4	23.3

[1] Excluding shares held in unlisted companies. [2] The currency breakdown of investments by individuals with institutional investors is assumed to be identical to that of financial assets held by these institutional investors.

Source: National Bank of Belgium (NBB).

Whatever the reasons, these foreign currency investments by individuals constituted a major source of capital outflows over the past 20 years and thereby a constraint on the balance of payments, as, to achieve its fixed exchange rate objective, Belgium had to counterbalance these outflows with offsetting inflows. This requirement was obviously more difficult to meet at times when the current account was in deficit, as in the early 1980s. The re-establishment of a surplus and its gradual widening from 1986 onwards alleviated this constraint, without, however, eliminating it, as the current account balance was often insufficient to counterbalance the capital outflows resulting from investments made abroad by individuals.

There have been two main types of offsetting inflows of capital. The first, autonomous in nature, has been in the form of direct investments. The rest of the world's holding of shares in Belgian companies has increased steadily, from 12.6% to 29.1% (Table 2). This rise has not been limited to listed stocks but has extended to unlisted equities, which in Belgium are by far the commonest means of raising capital.

The second major source of capital inflows has been the issuance of foreign currency denominated bonds by the government. This activity has been endogenous in nature since its goal has been precisely to offset the balance on current and other capital account transactions.

Table 2
Shareholder structure of Belgian companies
(as a percentage of the total)

	1980	1998
Listed shares		
Individuals	51.9	19.0
Companies	20.4	37.4
Other residents*	15.1	13.1
Rest of the world	12.6	30.5
Total	100.0	100.0
Unlisted shares		
Individuals	63.6	39.9
Companies	22.4	30.9
Other residents*	1.5	1.2
Rest of the world	12.6	28.0
Total	100.0	100.0
Total shares		
Individuals	61.2	30.8
Companies	22.0	33.7
Other residents*	4.2	6.4
Rest of the world	12.6	29.1
Total	100.0	100.0

* Including Belgian credit institutions and Belgian and foreign institutional investors operating in Belgium.

Source: NBB.

The volume of these inflows has thus been dictated by the exchange rate constraint. They were considerable at the beginning of the 1980s, but declined progressively towards the end of the decade. As from 1990, the Treasury has been able to make repayments and thus reduce its foreign currency denominated debt, except in 1993, a year marked by extreme tensions on the foreign exchange market.

This foreign currency borrowing has enabled foreign investors to play a role in the financing of the Belgian government (Table 3). Non-residents are, however, concentrated in the foreign currency segment of the debt, holding more than 85% at end-1998. At that date over 80% of franc-denominated debt was placed with Belgian financial intermediaries (banks and institutional investors). In this second segment, the share held by non-residents has actually risen, from 4% in 1980 to 11.3% in 1998, but this increase has been mainly at the expense of the share held by non-financial residents. It is largely the result of the recycling in Belgium of franc-denominated funds invested by Belgian individuals with Luxembourg or Dutch banks for the fiscal reasons mentioned above.

The introduction of the euro has obviously altered this situation and, in particular, eliminated the balance of payments constraint. This will, however, give way to a new imperative, namely that of ensuring an environment in which Belgian investors and borrowers alike will be able to benefit from the best possible investment and financing conditions within EMU, and which will at the same time make it possible to preserve the source of revenue and activity which the existence of domestic financial markets and intermediaries represents for the national economy.

In this context, attention will no longer focus on investments by individuals. They will certainly continue to diversify their assets, but the introduction of the euro should above all prolong and reinforce a movement which, as just seen, has already been well under way for a number of years.

The real change will take effect at the level of financial intermediaries. Hitherto their role in diversification operations has been mainly indirect, consisting in the advice and services provided to their private investor clientele. In operations for their own account, banks have been guided first and foremost by the (legitimate) concern of balancing their net Belgian franc and foreign currency

positions. This does not imply that they have been keeping their distance from the foreign exchange market. On the contrary, to satisfy a Belgian corporate clientele which depends largely on foreign markets for its business, Belgian banks have had to conduct a considerable volume of foreign exchange operations, both spot and forward. They have also accumulated a large amount of interbank foreign currency assets and liabilities on their balance sheets. However, these operations offset each other, so that franc-denominated funds raised from individuals have until now, in the absence of a significant euro-Belgian franc market, been almost exclusively devoted to financing Belgian debtors, principally the government.

Table 3
Holding structure of Belgian public debt
(as a percentage of the total)

	1980	1998
Franc-denominated debt		
Credit institutions	67.1	59.3
Institutional investors	5.8	19.1
Other residents	23.0	10.4
Luxembourg	3.1	7.1
Other non-residents	0.9	4.2
Total	100.0	100.0
Foreign currency denominated debt		
Credit institutions	63.7	14.3
Institutional investors	–	–
Other residents	–	–
Luxembourg	–	–
Other non-residents	36.3	85.7
Total	100.0	100.0
Total debt		
Credit institutions	66.9	56.5
Institutional investors	5.5	17.9
Other residents	21.7	9.7
Luxembourg	2.9	6.6
Other non-residents	2.9	9.3
Total	100.0	100.0

Source: NBB.

It is this feature which is changing with the advent of EMU. Banks will no longer have to limit the use of their deposits, now denominated in euros, to purchasing domestic assets. Similarly, insurance companies and pension funds will see a relaxation of the constraint imposed by the obligation to maintain a fairly strict balance in the currency composition of their assets and liabilities. Likewise, UCITS specialised in Belgian franc-denominated investments will be able to widen their investment policy to cover the whole of the euro area. Finally, Dutch and Luxembourg banks which used to recycle in Belgium franc-denominated deposits received from Belgian individuals will obviously be able to invest these funds, now denominated in euros, on other markets.

This redeployment will have far-reaching repercussions for the two big borrowing sectors in the Belgian economy, the government and the corporate sector. The two main securities markets available to these sectors, the government securities market and the stock market,[1] will need to adapt.

[1] The third potential market, that of corporate fixed income securities, is still very underdeveloped in Belgium. The introduction of the euro will no doubt be a significant expansionary factor. This third market will not, however, be analysed here as it raises issues very different from those concerning the future potential of the more mature government securities market and Brussels Stock Exchange.

3. Government securities market

Given its high degree of standardisation and its strong dependence on Belgian credit institutions, the government securities market is likely to be the most rapidly affected by the introduction of the euro. In particular, dematerialised securities issued by the Belgian Treasury, either long-term (linear bonds or OLOs) or short-term (treasury certificates), will enter into direct competition with the euro-denominated securities offered by the other EMU member countries.

After only a few months of EMU, there has already been a significant change in the structure of OLO holdings (Table 4). Whereas the rest of the world's share had fluctuated during the previous three years at around 10%, it climbed to almost 20% in the first six months of this year. It is mainly Belgian credit institutions that have reduced their portfolios, as other Belgian holders do not seem to have restructured to the same extent as yet. On the treasury certificate market, the trend towards diversification had started earlier, the rest of the world having already increased its share of the market from 32.2% to 43.5% between end-1996 and end-1998.

Table 4
Recent development of the holding structure of linear bonds and treasury certificates
As a percentage of the total, at end of period

	1996	1998	1999	
			March	June
Linear bonds (OLOs)				
Belgium	87.4	55.3	12.6	13.9
of which: Belgian credit institutions	91.9	51.0	8.1	13.0
Other holders	83.9	27.5	16.1	n.a.
Rest of the world	81.1	30.3	18.9	n.a.
of which: EMU*	59.9	28.6	n.a.	2.2
Other countries	61.6	30.1	n.a.	5.9
Total	100.0	100.0	100.0	100.0
Treasury certificates				
Belgium	67.8	48.8	32.2	23.5
of which: Belgian credit institutions	56.5	45.6	43.5	21.1
Other holders	59.5	17.3	40.5	n.a.
Rest of the world	56.7	15.3	43.3	n.a.
of which: EMU*	50.5	10.6	n.a.	17.1
Other countries	41.2	11.1	n.a.	22.2
Total	100.0	100.0	100.0	100.0

* Excluding Belgium.

Source: NBB.

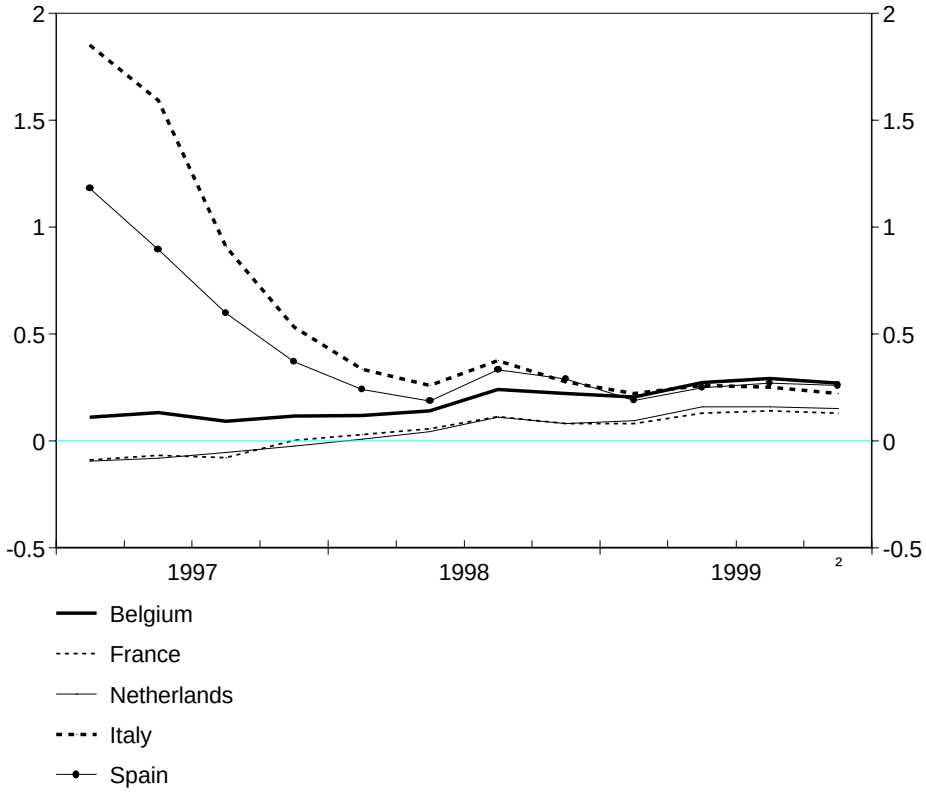
It has to be noted that these figures do not take into account changes of ownership which are solely due to repurchase agreements. These repos are extensively used by Belgian banks as a convenient technique to cover net borrowings of bonds in euros from abroad. While they result in a transfer of Belgian government securities holdings from Belgium to the rest of the world, such operations are not motivated by the economic purpose of portfolio diversification. By focusing on this economic concept, Table 4 underestimates the amount of Belgian government securities legally in the hands of the rest of the world. This restriction strengthens the significance of the changes in the ownership of OLOs recorded in Table 4.

This quite naturally raises the question of the terms on which the Treasury has been able to attract foreign investors. A change in holding structure does not indicate whether or not it was necessary to increase rates, be it to counter the declining interest of traditional investors or to attract new ones.

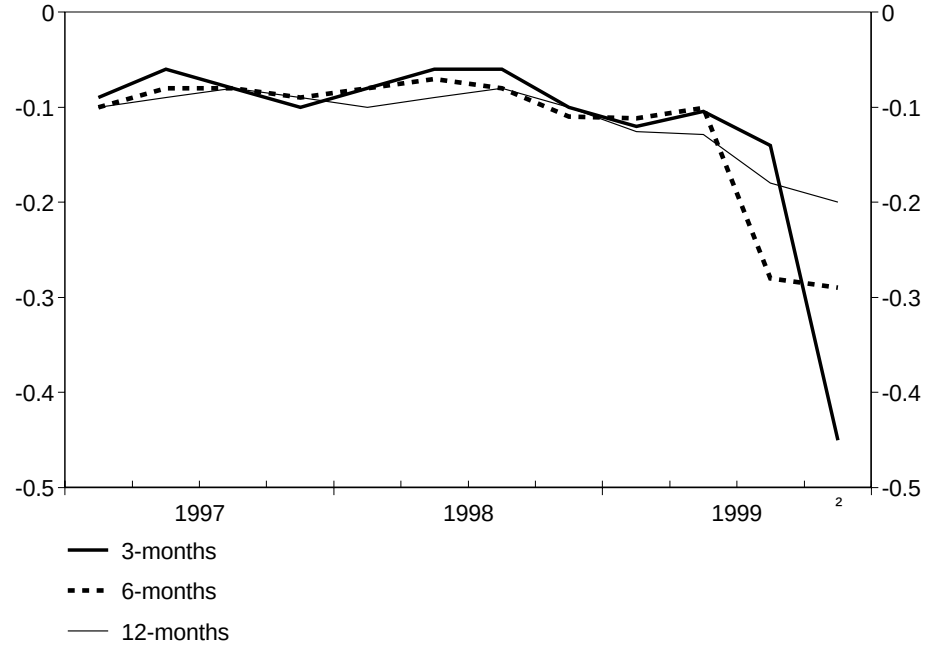
Chart 1

RECENT EVOLUTION IN INTEREST RATE CONDITIONS ON THE BELGIAN GOVERNMENT DEBT

INTEREST RATE DIFFERENTIALS WITH TEN YEAR GERMAN BONDS



INTEREST RATE DIFFERENTIALS BETWEEN BELGIAN TREASURY CERTIFICATES AND INTERBANK DEPOSITS [1]



Source: NBB.
1. Bibor until 1998, Euribor thereafter.
2. Average October and November.

Here too a distinction must be made between short- and long-term securities. On the bond market, the spread between the 10-year Belgian OLO and the 10-year German bund, the market benchmark, has widened somewhat further in 1999, prolonging the trend already observed the year before (upper panel of Chart 1). Belgium is not an isolated case, since there has been a similar widening for the other euro area members, including countries like Italy or Spain which had seen a narrowing of the differential prior to joining EMU.

On the money market, the main yardstick is Euribor, which has replaced Bibor and its equivalents in other countries that have joined the euro area. Relative to Bibor/Euribor, the negative spread on treasury certificates has widened. Taking the average for three-, six- and 12-month instruments, the differential increased from an average of eight basis points for 1997 and the first three quarters of 1998 to 11 basis points during the following three quarters. The spread even widened sharply in the course of the third and fourth quarters, rising to 20 basis points for 12-month certificates, 29 basis points for 6-month certificates and 45 basis points for 3-month certificates (lower panel of Chart 1). These last two developments are, however, strongly influenced by the approach of the year 2000. Given the technological uncertainties surrounding the date change, credit institutions are increasingly anxious to arrange easy access to liquidity at year-end and are therefore shunning interbank deposits maturing after 1 January, whose rates are thus being pushed up, and turning to treasury certificates, which can be mobilised at any time via repos.

However, even after correction of this exceptional factor, it does seem that since the introduction of the euro the Belgian Treasury has enjoyed somewhat more favourable conditions for its short-term borrowing, while the reverse seems to be proving true for long-term issues.

The causes of this divergence are to be found in the two major factors that continue to differentiate the government securities markets of the EMU member countries, namely credit risk and liquidity.

These two major criteria make scarcely any difference in the case of treasury certificates. First, all EMU member countries have the highest rating for their short-term euro-denominated debt. Second, with the advent of a uniform money market and widespread use of repos in the euro area, liquidity differences are now virtually irrelevant as regards short-term government securities. Moreover, the Belgian government may benefit from a certain rarity advantage in this segment in that a number of EMU countries, in particular Germany, issue hardly any short-term government paper, whereas Belgium is one of the countries with proportionally the greatest presence on this market (Table 5).

Table 5
Structure of euro area government debt at end-1997
As a percentage of the total

	Treasury bills	Variable rate bonds	Fixed rate bonds	Foreign currency debt	Non-marketable debt and other*	Total
Belgium	17	2	71	8	2	100
Austria	1	8	50	20	21	100
Finland	5	0	53	38	4	100
France	7	5	75	0	13	100
Germany	2	2	80	0	16	100
Ireland	3	5	49	26	17	100
Italy	14	26	45	6	9	100
Netherlands	3	0	82	0	15	100
Portugal	9	12	34	22	23	100
Spain	28	0	62	9	10	100

* Including non-marketable savings bonds and accounts.

Source: OECD.

The situation is different on the capital market. The spreads between the bund and other EMU long-term government securities vary from one member country to another, and these spreads are correlated with the various countries' ratings.

This relationship can be seen from a rudimentary test whereby ratings, by nature qualitative, are first transformed into quantitative data. To do this, an average is calculated for the ratings awarded by the three main rating agencies – Standard & Poor's, Moody's and Fitch IBCA – after converting them into 1 for the highest rating (AAA or Aaa), 2 for the next rating (AA+ or Aa1) and so on (Table 6). A clear classification similarity appears between the average thus obtained and the spreads vis-à-vis the bund. This is confirmed by a simple linear regression between these two variables (first line in Table 7). The relationship is statistically significant and indicates that a lowering of the average rating by one notch is accompanied by a widening of the differential by about 4 basis points.

Table 6

Credit ratings for euro-denominated government bonds and long-term interest rate spread vis-à-vis Germany in the euro area in 1999

	Standard & Poor's	Moody's	Fitch IBCA	Credit rating[1] (average grade)	Long-term interest rate spread[2] (vis-à-vis Germany, in basis points)
France	AAA	Aaa	AAA	1.0	11
Netherlands	AAA	Aaa	AAA	1.0	13
Luxembourg	AAA	Aaa	AAA	1.0	15
Austria	AAA	Aaa	AAA	1.0	17
Ireland	AA+	Aaa	AAA	1.3	20
Finland	AA+	Aaa	AAA	1.3	22
Spain	AA+	Aa2	AA+	2.3	23
Belgium	AA+	Aa1	AA–	2.7	25
Portugal	AA	Aa2	AA	3.0	26
Italy	AA	Aa3	AA–	3.7	24

[1] Data on credit ratings are averages of the most recent ratings from Standard & Poor's, Moody's and Fitch IBCA (with a value of 1.0 for the highest rating, 2.0 for the next, and so on). [2] Data on the long-term interest rate spread vis-à-vis Germany are averages of monthly data over the period January–August 1999.

The hypotheses underlying this regression are, first, that the three rating agencies have the same weighting in the eyes of market participants and, second, that the gap between AAA and AA+ has the same significance in credit risk terms as that between AA+ and AA or between AA and AA–.

One risk factor that is directly quantifiable is the level of public debt. This is one of the main elements taken into consideration by the markets in evaluating sovereign risk, and its psychological importance has been further emphasised by its inclusion in the criteria for both entry into EMU and compliance with the growth and stability pact.

Lines 2 to 5 in Table 7 attempt to measure the link between the long-term interest rate differential vis-à-vis Germany and the debt ratio of the 11 EMU member countries during the period 1992–99. The combination of series by country and by year (panel data) enables the number of variables to be increased, but introduces the important assumption that the reactions of interest rate differentials to changes in the debt do not differ too greatly from country to country.

Integrating the public debt criterion immediately raises certain conceptual problems. Taking the debt ratio as a stock (line 2) disadvantages countries with a high percentage of debt at the start of the period. Conversely, using only the change in the debt ratio (line 3) disadvantages countries that start from a lower level of debt and will thus find it more difficult to reduce it further.

Table 7

Average response of euro area countries' long-term interest rate spread vis-à-vis Germany to different explanatory variables[1]

Constant	Credit rating[2]	Debt ratio[3]	Change in debt ratio[2]	$\overline{R^2}$
0.1179	0.0427			0.66
(5.2882)	(3.9571)			
0.3923		0.0099		0.05
(0.9556)		(1.8899)		
1.0018			0.1145	0.15
(6.4703)			(3.4247)	
0.1415		0.0121	0.1204	0.23
(0.3979)		(2.6611)	(3.7554)	
		0.0138	0.1209	0.23
		(7.3024)	(3.7981)	

[1] Data in parentheses are t-statistics. [2] Annual data for the first regression relate to 1999 only. [3] Annual data for the other regression relate to the period 1992–99.

Source: NBB.

The best results are obtained by combining the interest rate level and change (line 4 with a constant different from zero and line 5 with a constant equal to zero). However, the explanatory power of these two regressions is fairly low ($R^2 = 0.23$). The interest rate differential is therefore much less closely linked to the public debt than to country ratings. This might indicate either that the market relies heavily on the rating agencies in evaluating sovereign risk or that it uses an implicit model similar to that of the rating agencies in doing so.

In any event, credit risk alone cannot fully explain the long-term interest rate differential between Germany and the other EMU member countries. This differential exists even for countries such as France, the Netherlands, Austria and Luxembourg which have precisely the same ratings as Germany.

These divergences are accounted for by the second factor which differentiates European government securities markets, namely the degree of liquidity. A market is said to be liquid when participants can rapidly execute major transactions on it without exerting a significant impact on prices. Although this definition is commonly accepted, there is much less of a consensus as to the best indicator of a market's liquidity.

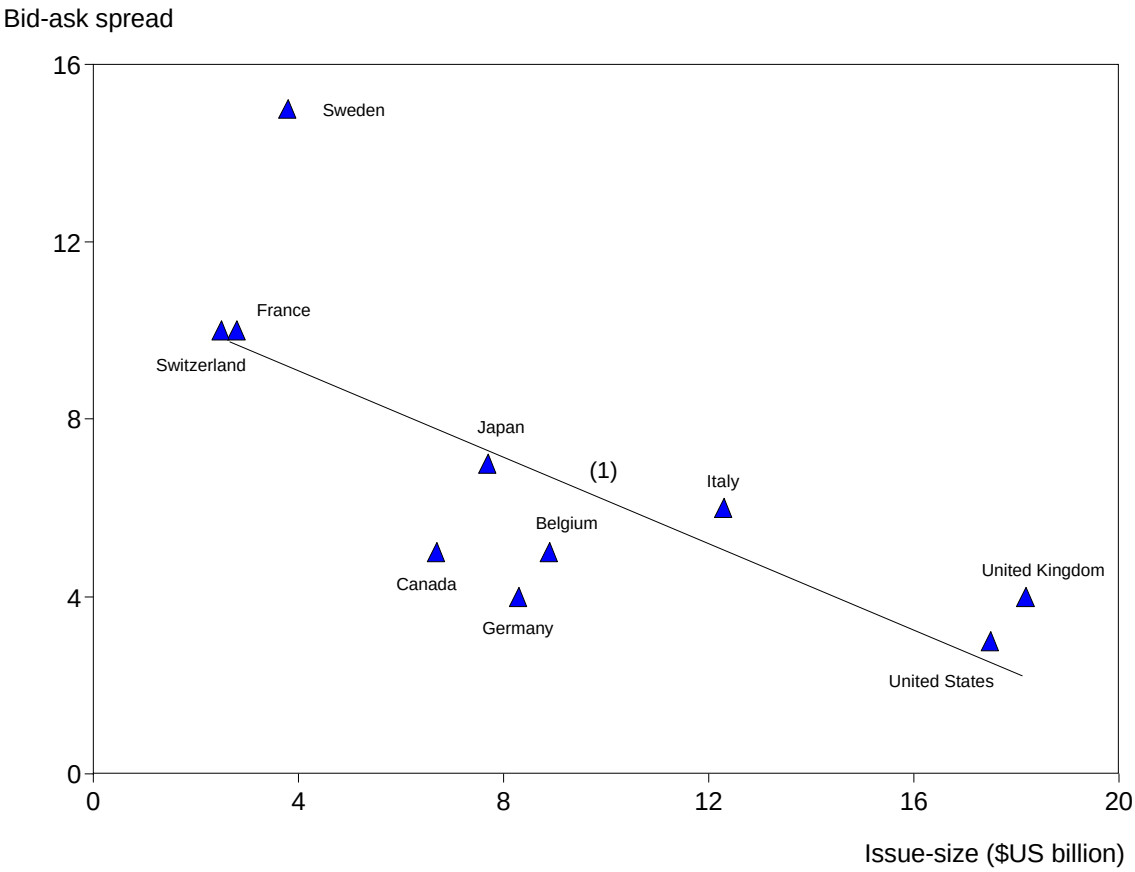
The volume of issuance on the primary market is certainly an important element. Moreover, an international comparison by the BIS tends to show that there is an inverse relationship between the size of issues and the width of secondary market bid-ask spreads on 10-year benchmark bonds (Chart 2). In principle, this should tend to favour the large countries. However, the volume of bond issuance is also a function of the degree of indebtedness, the percentage of debt financed on the securities market, issuance and repayment techniques, and the maturity distribution. These various criteria explain, in particular, why Belgium issues, in proportion to its size, fairly large amounts of its benchmark bonds, with a bid-ask spread of around 5 basis points.

A second measure of liquidity is activity on the secondary market. It is, however, difficult to collect precise data in this area. While some markets are completely centralised, others operate with a number of clearing systems. Some countries cannot eliminate double-counting, or they incorporate repos in their statistics. The most efficient secondary markets seem to be those which can rely on the presence of a sizable futures market. In this respect, the bund market has a clear advantage due to the very high volume of trading in euro bund futures on Eurex. The volume of French OAT futures on MATIF or Italian BTP futures on LIFFE is much smaller. In Belgium, Belfox stopped OLO futures trading during the second half of 1998.

Finally, it is important to note that the choice of a specific maturity is a far from neutral factor in the evaluation of market liquidity. The maturity most commonly used is the 10-year benchmark. As shown in Chart 3, it is precisely for this maturity that the spread between Belgian or French and

Chart 2

ISSUE SIZE AND BID-ASK SPREAD FOR ON-THE-RUN 10-YEAR GOVERNMENT BONDS



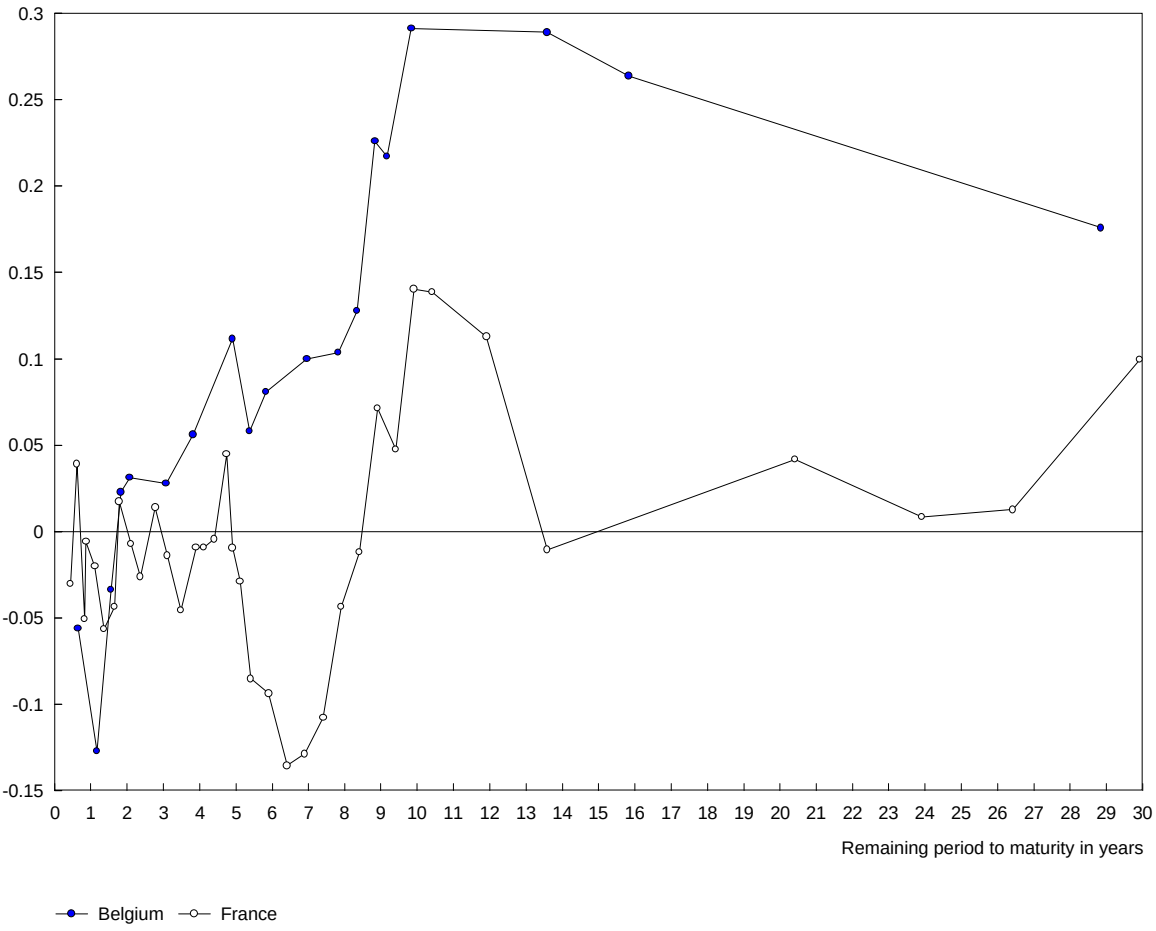
Sources: OECD, BIS.
1. Simple OLS regression yielding the following: Bid-ask spread = 11.2 - 0.5 * issue size.

German government bonds is the greatest.[2] Although the bund has the lowest rates for maturities between nine and 12 years as well as for the 30-year maturity, it is the French OAT which constitutes the benchmark for maturities from five to eight years, while, for other maturities, the rates on these two categories of securities are very close.

Chart 3

YIELD DIFFERENTIAL OF FRENCH AND BELGIAN GOVERNMENT SECURITIES VIS-A-VIS GERMAN GOVERNMENT SECURITIES

(As at 1 June 1999-in percentages)



Source: NBB.

[2] In order to correct the distortions which could result from slight differences in the exact maturities of bonds, Belgian and French bond yields were compared with theoretical yields on German bonds of the same maturity calculated by interpolating the two German bonds with the closest maturities.

In the case of the Belgian OLO, the differential significantly exceeds 10 basis points only for maturities greater than eight years. There is even a negative spread on the shortest maturities (18 months and less). It would obviously be risky to draw a general conclusion from this given the more erratic movement of rates in this segment of the yield curve (the bund-OAT spread also fluctuates somewhat for the shortest maturities). This particular structure does at least not contradict the above-mentioned hypothesis that the Belgian Treasury may benefit from proportionally more favourable conditions for its short-term bonds.

The Belgian Treasury did actually take advantage of this in April 1999 when it issued a new line of floating rate OLOs benchmarked on three-month Euribor. It was the first sovereign issue of this type in the euro market. It allowed the Treasury to benefit from a slightly more favourable funding cost than for a three-year fixed rate OLO swapped into floating.

In view of the importance of liquidity in the strategic positioning of the various domestic government securities markets within the euro area, the Belgian Treasury has taken a series of initiatives to facilitate the placement of its securities with a broader range of investors.

In order to speed up the introduction of its new 10-year benchmark lines on the primary market, the Treasury has decided to offer the first tranche of issues at that maturity through syndicates in order to create a sufficient stock from the outset; the following tranches will, as usual, be auctioned.

To stimulate the secondary market, the Treasury has substantially increased the number of non-resident intermediaries among primary dealers. This has made it possible both to gain better access to international customers and to make up for the reduction in the number of domestic primary dealers due to the ongoing restructuring of the Belgian banking sector. The Treasury has also created a new category of agents on this market – recognised dealers – whose role is to place debt securities in specific targeted foreign markets.

These various measures bear witness to the at times difficult trade-offs which the Treasury has to make. As a Belgian government entity, it cannot be insensitive to its contribution, via the public debt, to maintaining intermediation, market activity and financial management in Belgium. At the same time, as a borrower, it is duty-bound to make the arrangements necessary to obtain the best financing conditions, if necessary by increasing its reliance on foreign intermediaries.

4. Stock market

While the various government securities markets in the euro area show a high degree of standardisation, the same is not true of the stock markets, as accounting standards, company law and corporate tax regimes continue to differ greatly from country to country. These legal and institutional divergences are accompanied by more economic characteristics, such as the size and reputation of the companies listed, their sectoral distribution and their shareholder structure. It is important to take these characteristics into account when evaluating the development prospects for the various national stock markets following the introduction of the euro.

Compared with those of its three main neighbours, Belgium's stock market appears quite small, whether judged by the number of companies listed, its capitalisation or the volume of capital raised (Table 8).

A second major characteristic is the relative absence of very large companies, the famous blue chips which often serve as a stock market's showcase. The degree of concentration, measured by the relative share of the 5% of companies with the largest capitalisation, is only 56.5% on the Brussels Stock Exchange while it is close to 70% on the Paris Stock Exchange and well above that figure in Amsterdam and Frankfurt.

This situation reflects the size of companies in Belgium, which are mainly small and medium-sized companies with a very small number of big multinationals. Another indicator of this specific structure can be found in the proportion of issues of unlisted equities. Between 1993 and 1998, out of an annual

average total of €8.1 billion of cash raised through equity issues in Belgium, €6.7 billion or 83% was in the form of private issues by essentially family-based entities.

Table 8
Companies listed on stock exchanges

	Number of listed companies (end-1998)	Market capitalisation (billions of euros at end-1998)	Funds raised in 1997 and 1998 (billions of euros)	Concentration of market value[1] (end-1998)
National stock exchanges[2]				
Brussels	146	210.4	4.0	56.5
Frankfurt	741	930.8	28.9	77.8
Paris	914	837.1	44.8	68.6
Amsterdam	212	512.4	52.5	73.3
Total	2,013	2,490.6	130.1	
Brussels as a percentage of total	7.3	8.4	3.1	
Euro-NM				
Brussels	8	0.2	0.1	
Frankfurt	63	26.1	3.1	
Paris	81	4.2	0.9	
Amsterdam	13	1.0	0.2	
Total	165	31.4	4.2	
Brussels as a percentage of total	4.8	0.8	1.8	
EASDAQ				
Belgian shares	9	3.4	0.3	
Other shares	30	9.7	1.3	
Total	39	13.1	1.6	
Belgian shares as a percentage of total	23.1	25.8	20.1	

[1] Share of the 5% of most highly capitalised listed companies. [2] Primary and parallel markets, domestic stocks.
Sources: International Federation of Stock Exchanges; EASDAQ; Euro-NM.

This market segment might offer broad development possibilities for venture capital or initial public offerings, if necessary via markets specialised in growth stocks. There are actually two markets of this type accessible to Belgian companies. The first is Euro-NM Brussels, which is the Belgian compartment of a broader market, the fruit of a joint initiative of the Frankfurt, Paris, Amsterdam and Brussels exchanges. The second is EASDAQ, modelled on NASDAQ and based in Brussels. The latter feature is very probably the reason why Belgian companies have a proportionally greater presence on EASDAQ than on Euro-NM Brussels. However, if these two new specialised markets are combined, the relative importance of Belgium compared with its three large neighbours is fairly similar for the specialised and for the leading stock markets.

On the secondary market, Belgium also has two major characteristics that set it apart from its partners. The first – the extensive foreign presence – has already been highlighted in Table 2. The proportion of listed Belgian equities held by the rest of the world rose from some 13% in 1980 to around 31% in 1998. These purchases represent not only portfolio investments but, in a large number of cases, direct investments following mergers or acquisitions.

These operations have contributed to accentuating the second major characteristic of the secondary market on the Brussels Stock Exchange, namely the very high percentage of closely held equity, which at nearly 55% (Table 9) is appreciably higher than on most other stock exchanges. The bulk of Belgian companies are integrated into holding structures and have a single major shareholder. Thus, on average, the principal direct shareholding for listed Belgian companies is 41%. As a result, the so-called "float", i.e. the proportion of the shares which really sustain activity on the secondary market, is rather small.

Table 9
Holding structure of shares listed on the primary market on the Brussels Stock Exchange

	October 1990	January 1996	August 1998*
Number of listed companies	159	139	128
Stock exchange capitalisation (in billions of euros)	58.4	82.5	165.3
Average percentage closely held	55.0%	53.8%	54.2%
Average percentage of largest direct participation	31.8%	34.2%	40.8%
Average percentage of largest direct and indirect participation	40.9%	41.7%	44.7%

* Excluding five big companies which terminated their stock exchange listing during the second half of 1998.
Source: BBL/ING.

To summarise, the smallness of the Belgian market, the relative absence of big name companies and the fairly high percentage of closely held equities are so many variables likely to impact on the process of integrating the Belgian stock market into the euro area.

Even less so than in the case of the public debt, there is at present a lack of volume data that would make it possible at this stage to measure any changes in the Belgian shareholder structure that might have been induced by the advent of EMU. It is therefore mainly price data that have to be relied on. Stock prices are, however, a more difficult variable to interpret than interest rates on government securities. Equities are a much more heterogeneous type of security than bonds, with their prices very largely dependent on individual factors specific to each issuer.

These specific factors have not prevented a close correlation between the leading European stock markets in the run-up to EMU (upper panel of Chart 4). The German (CDAX) and French (SBF 250) stock indices have moved in unison and have also closely followed the general Euro STOXX index. The Belgian index too has been aligned with the overall trend.

Over the past few months, the performance of the various markets has become much more disparate. While the Euro STOXX index and the general index of the Paris Stock Exchange (SBF 250) have continued to move in unison, the Belgian and German indices have gradually diverged. This divergence emerged at the end of 1998 in the case of Germany, where the recovery in stock prices after the third-quarter correction was only very gradual. In Belgium, prices fell sharply during the first half of 1999 in contrast to the trend observed on other markets.

One possible initial explanation is business cycle asymmetry. The slowness of the recovery in Germany compared with a number of other European countries is probably one of the causes of the sluggishness of the Frankfurt market.

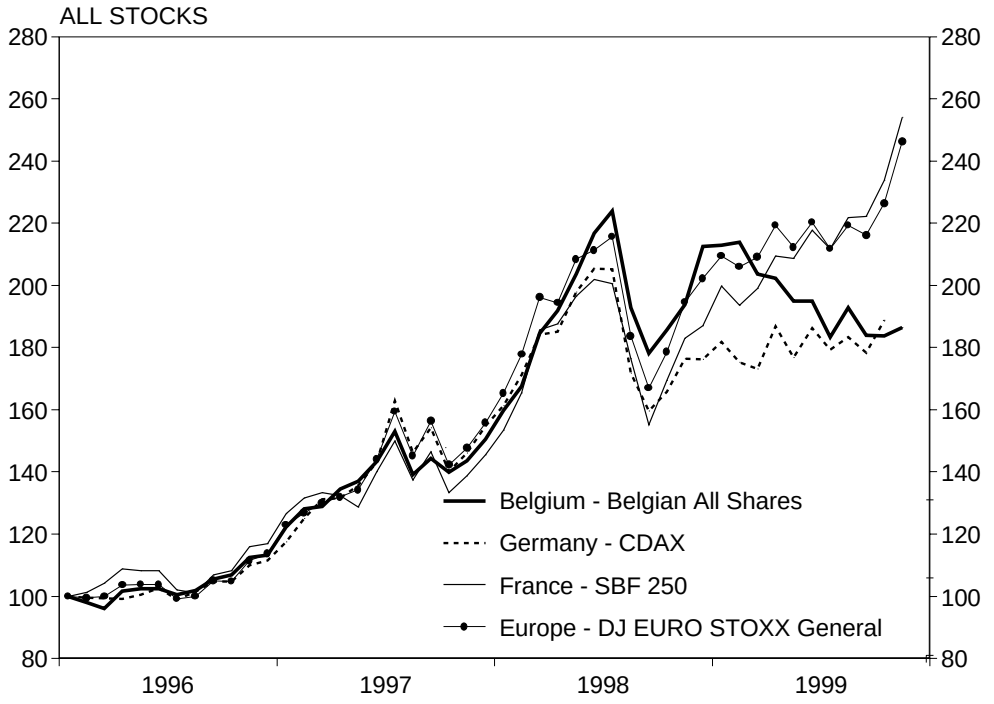
This argument seems, on the other hand, much less applicable to Belgium, which has not really lagged behind the business cycle compared with the majority of its European partners. On the contrary, over the past few months various market participants and financial analysts have been highlighting the fact that for a number of years the Belgian economic indicator has been a leading indicator of changes in the growth of the euro area as a whole.[3]

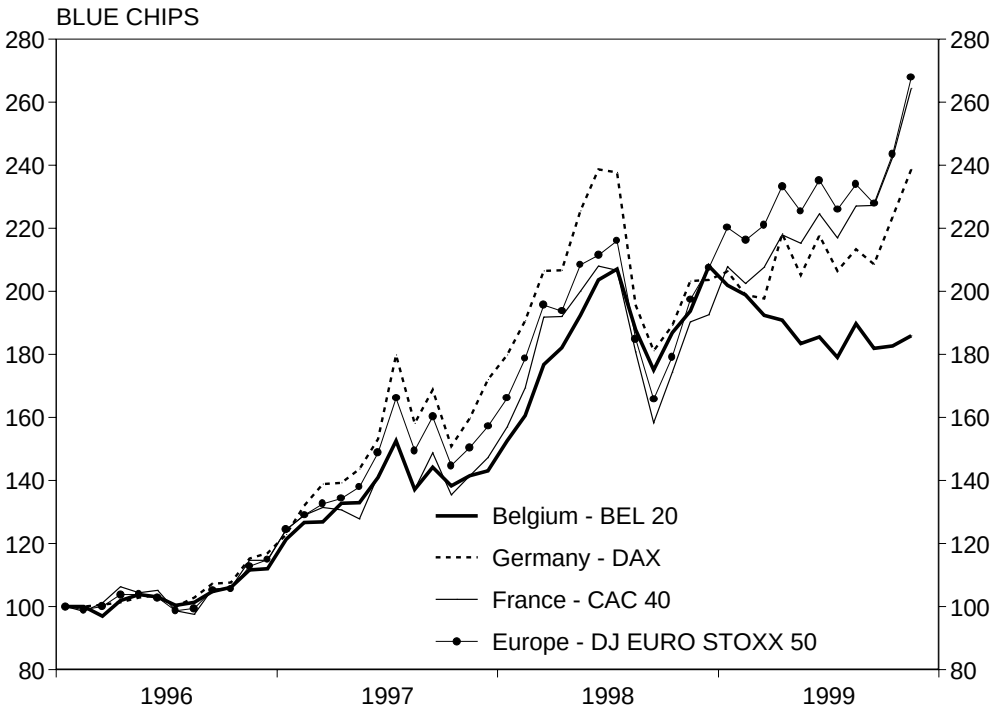
[3] See, for example, the article by Christopher Rhoads in *The Wall Street Journal* of 14 July 1999.

Chart 4

STOCK EXCHANGE PRICES

(End of period, January 1996 = 100)





Sources: BIS, national stock exchanges.

The atypical movement of stock prices in Belgium in recent months might also have more structural causes. In 1998, the Brussels Stock Exchange rose more strongly than the other European stock exchanges. It was also less affected by the decline in prices during the third quarter, so that at year-end it was at a proportionally higher level than its counterparts. One of the reasons put forward for this good performance is the number of mergers and acquisitions on the Belgian market recently, in particular in the financial sector. These operations might have been accompanied by speculative position-taking which would have pushed prices upwards. In this context, the movement observed since the beginning of 1999 would basically constitute a correction.

It should, however, be mentioned that there have also been numerous mergers and acquisitions abroad. These restructuring operations have, moreover, continued in 1999, again both in Belgium and elsewhere.

In addition, this hypothesis of the correction of a previous overvaluation does not seem to be borne out by movements in indices for blue chips, which in Belgium were particularly affected by mergers and acquisitions. For the period 1996–98 as a whole, the rise in the BEL20 was not very different from that in the corresponding indices in Germany (CDAX), France (CAC40) and the euro area as a whole (Euro STOXX 50) (lower panel of Chart 4). Admittedly, as was the case for the general index, the BEL20 recorded a smaller correction than the other countries' indices in the second half of 1998. However, this movement only offset the slower increase in prices registered in 1997. Rebased to 100 in January 1996, the BEL20, DAX, CAC40 and Euro STOXX 50 benchmark indices were all at very similar levels at the end of 1998.

This parallelism makes the divergence observed since the beginning of 1999 all the more striking. Whereas the Euro STOXX 50, the CAC40 and, to a lesser extent, the DAX have trended upwards, the BEL20 fell by nearly 14% between end-December 1998 and end-July 1999.

This brings us to the role which the introduction of the euro might have played in recent movements in stock exchange prices. The existence of the single currency allows investors to broaden their investment horizons without exposing themselves to exchange rate risk any longer. Country diversification is replaced by sectoral diversification. The latter should particularly benefit major stocks, as it is stocks of big companies that are the most widely known and often have the most liquid markets. Information on them is generally more abundant and more readily available.

As mentioned above, the Belgian stock market has only a small number of big companies. Diversification by Belgian investors into the leading stocks of other European countries is therefore unlikely to be offset by an opposite flow of the same magnitude due to the relative dearth of such equities on the Belgian market. By way of an example, the Euro STOXX 50 contains only two Belgian stocks (Fortis and Electrabel).

Another sign of this concentration of investors' interest in big companies' stocks is the movement of the Euro STOXX 50, which, particularly over the last few months, has risen faster than most national stock indices. This discrepancy in price movements for leading stocks only and for the market as a whole seems to be confirmed by Chart 5. Both for Europe as a whole and for Germany and, to a lesser extent, France, the index of blue-chip equities has risen more than the general index, especially during the most recent period. Belgium, however, has been an exception to this rule. The asymmetrical diversification referred to above has affected the prices of leading Belgian securities all the more because a substantial proportion of them are closely held (Table 9). The fairly small floating segment makes the price of these equities more sensitive to changes in the structure of investment portfolios.

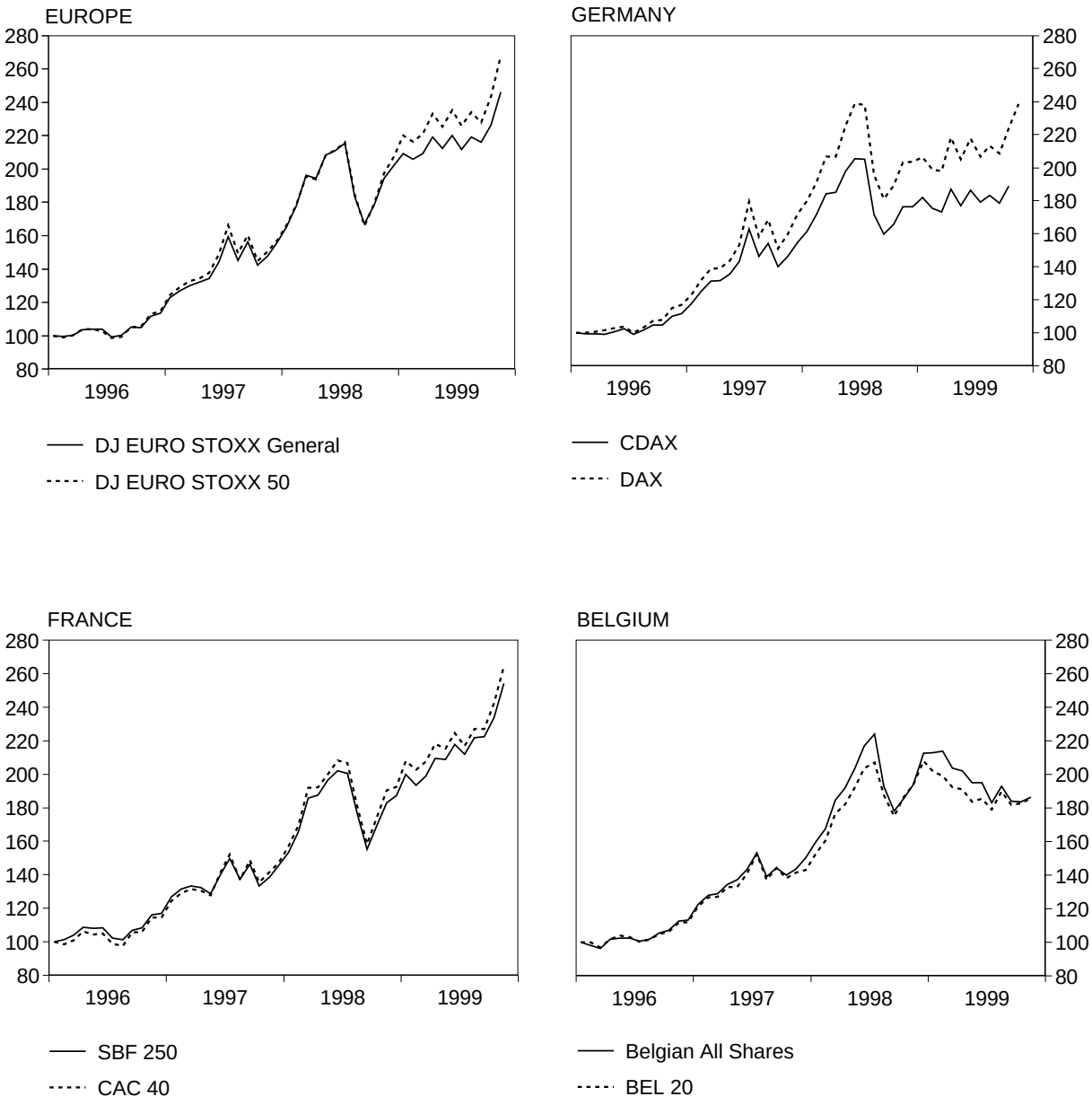
It should not be concluded from this that these movements are irreversible. The effect of portfolio restructurings on prices will no doubt be temporary; in an efficient market, there is basically no justification for a systematic undervaluation of shares on a particular market. Nonetheless, the Brussels Stock Exchange has very few blue-chip equities to speak of and, moreover, the large portion that is closely held tends to limit trading in them.

To adapt itself to this new environment, the Brussels Stock Exchange needs to adopt an ambitious restructuring programme. This programme has three main dimensions, along the lines of those adopted by other stock exchanges.

Chart 5

STOCK EXCHANGE PRICES:
COMPARISON OF ALL STOCKS AND BLUE CHIPS PRICES

(End of period, January 1996 = 100)



Sources: BIS, national stock exchanges.

The first is the vertical integration, or merger, between the Brussels Stock Exchange, the derivatives market (Belfox) and the Securities Deposit and Clearing Office (CIK). These three entities were merged into the Brussels Exchange (BXS) at the beginning of 1999.

The second trend is that of demutualisation. The BXS has been set up as a public limited company whose board is partly made up of independent directors. This structure protects the exchange against the risk of a fluctuation in capital, inherent in a cooperative setup, and allows a subsequent offering of capital to third parties, or even a listing.

The third trend is the establishment of ties between European exchanges. The Brussels Stock Exchange became involved in this process at a very early stage, first by participating in the founding of Euro-NM (see above) and second by concluding a cross-membership agreement with the two other Benelux exchanges in 1998. Finally, the Brussels Stock Exchange is party to the decision taken recently by eight European exchanges to organise a common listing of leading European stocks.

It would, however, be wrong to concentrate exclusively on the locational aspect of stock markets. The new electronic trading systems are in any case likely to greatly reduce the relevance of geography. The important thing is not the physical location of the quotation and trade processing systems. True added value for an economy lies in intermediation, brokerage and particularly financial and market analysis. Much more than the existence of a stock exchange, maintaining and extending a market requires the presence of institutional investors, venture capitalists and M&A consultancy and financing specialists.

In this respect, the handicap of the small number of very big companies listed on the Brussels Stock Exchange appears to be relative since the processing of transactions involving leading European equities is eventually likely to become centralised on one dominant major exchange. The challenge is therefore to develop expertise that would make it possible to provide a broad range of financial services to companies of comparable size to those which make up the major part of the Belgian corporate structure.

5. Conclusions

Belgian individuals certainly did not wait for the introduction of the euro before purchasing financial assets abroad. Tax considerations in addition to the desire to diversify and the quest for higher returns encouraged investors to invest in foreign currencies.

These capital movements were a significant constraint on the balance of payments, given Belgium's fixed exchange rate objective. To counterbalance these outflows, the current account surplus had to be supplemented with offsetting capital inflows, which were of two main types. The first category was direct investments, which were reflected in an increase in the holding of Belgian equities by non-residents. The second consisted of government securities in foreign currency, issued principally abroad, unlike franc-denominated public debt, which was almost exclusively placed in the domestic market.

The two big Belgian securities markets, the stock market and the government securities market, have thus been partly shaped by the exchange rate constraint. Although this has now been eliminated by the advent of EMU, a new requirement has taken its place: ensuring the harmonious incorporation of Belgian markets into the euro area or, more specifically, reconciling the double objective of guaranteeing Belgian investors and borrowers the best financing conditions and preserving, in Belgium, the source of returns and activity provided by domestic markets and intermediaries.

As a government entity and principal borrower on the market, the Treasury is particularly affected by this trade-off. A somewhat different trade-off arises with short- and long-term government securities. On the treasury certificate market, the Belgian Treasury benefits from a certain rarity factor in view of the insignificance of short-term public debt in most of the other euro area countries. With this advantage, it has been possible to slightly improve financing conditions owing to the advent of EMU, particularly since liquidity and credit risk are of little importance for this end of the maturity spectrum.

The same cannot be said for the long end, where the two criteria just mentioned are of major importance. It is on 10-year maturities, the bond markets' benchmark, that these two variables have had the most marked effects. The spreads between bunds and other euro area government paper

(including Belgian OLOs) are highest for 10-year bonds and have, moreover, tended to increase over the last two years. A first possible measure for the Treasury is to seek out certain niches (floating rate instruments, issues at other maturities, etc.). A second is to further open up the market to foreign investors, which leads back to the trade-off between improving financing conditions and promoting financial activity in Belgium.

On the stock market, securities are evidently more heterogeneous. The challenge posed by integration into the euro area is therefore presented in different terms. Interpreting recent price movements is also more complex and more hazardous to relate to the introduction of the single currency.

One fact emerges clearly. After varying in unison with European, German and French stock indices from 1996 to 1998, Belgian indices diverged very markedly during the first half of 1999. Economic or structural factors alone do not seem able to fully explain this divergence, so that its coinciding with the start of EMU raises questions about the potential role of the euro.

The single currency has encouraged many Belgian investors, both private and institutional, to further diversify their equity portfolios within the euro area. Although it is probable that a readjustment in the opposite direction has also been made by the residents of other European countries, this offsetting movement has been dampened by a lack of major equities on the Brussels Stock Exchange. This would partly explain why Belgian stock indices have moved much less favourably than the corresponding indices elsewhere in the euro area. The asymmetry in diversification operations weighed all the more on the prices of Belgian stocks since a substantial portion is closely held.

These developments are no doubt temporary, as systematic undervaluation is hardly conceivable in an efficient market. However, they do highlight some of the handicaps of the Brussels Stock Exchange in terms of big name stocks and stock liquidity.

Reflections on the future of the Belgian stock market must therefore go beyond the problem of blue chips, which are in any case likely to end up listed on one dominant major stock exchange. They must even go beyond the mere notion of a stock exchange. On the financial markets, added value is not obtained chiefly by maintaining a quotation and trade processing system, but first and foremost from analysis, consultancy and financing, activities which the existence of a local stock exchange can, at best, serve to support and stimulate.

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