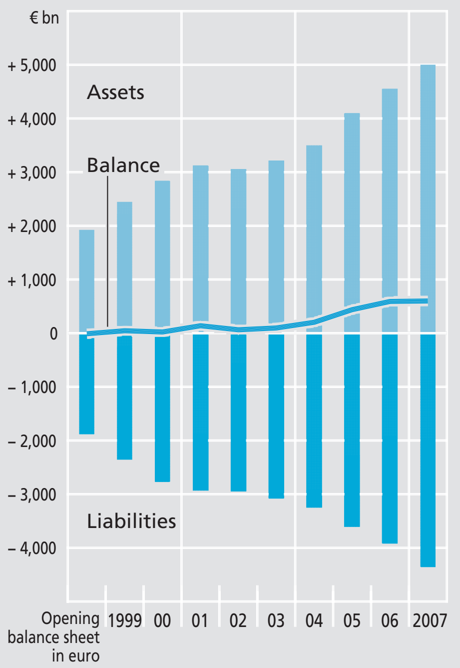
Germany's international investment position since the beginning of monetary union: developments and structure

Germany's financial ties with the rest of the world have strengthened significantly in recent years. At the end of 2007, Germany's external assets totalled €5,004 billion, its liabilities €4,360 billion. Both positions have more than doubled since the beginning of monetary union. This increase reflects the global trend towards diversifying assets across borders. It also relates to the introduction of the euro which created a large financial playing field in which exchange rate risks no longer play a role.

Overall, Germany had net external assets of €645 billion at the end of 2007. This represented 26½% of GDP. This amount was essentially an accumulation of current account surpluses since 2001. Given the likely impact of demographic ageing, it can also be considered a nest egg for future financial requirements.

The following article analyses key developments in Germany's international investment position since the beginning of monetary union. It also examines the effects of the introduction of the euro on the main regional investment targets. The underlying methodology used to establish the international investment position is described in the annex.



Developmental overview of Germany's international investment position

International investment position as a source of information

Germany's financial relationships with other countries are shown in relative detail in the international investment position (IIP). It provides information on the scope and structure of international assets and liabilities in domestic sectors in Germany. The IIP shows the international financial operations of residents, as recorded in the balance of payments, as well as the market price changes in assets between the relevant balance sheet dates. Exchange-rate-related changes are factored into foreign currency positions. In addition to the balance of payments, the IIP is therefore another important source of information for analysing Germany's relationships with third countries.

External assets

The annual figures for 2007 show that Germany's international financial relationships have again intensified. At the end of 2007, Germany's external assets amounted to €5,004 billion, two and a half times more than at the beginning of monetary union. Compared with the beginning of 1991, they were as much as six times higher. While, at an annual average of 10½%, the volume of external assets grew at roughly the same rate as total German financial assets (+9½%) in the years prior to monetary union (1991 to 1998), the external assets included in the IIP grew at an even faster rate from 1999 to 2007 (annual average of 11½%), overtaking total German assets by a considerable margin (annual average of around 4½%). The home bias of German investors has evidently continued to abate in recent years; portfolios have therefore assumed a more international flavour, in which – as explained later – other euro-area countries account for the lion's share of investments. This development suffered a temporary setback as a result of heightened uncertainty on the global financial markets following the bursting of the new economy bubble, the attacks of 11 September 2001 and the economic downturn in the world economy. These events led to a slight drop in Germany's external assets in 2002. The brisk increase then resumed, however, thanks mainly to high current account surpluses in Germany.

External liabilities

At the end of 2007, external liabilities totalled €4,360 billion, almost two and a half times more than at the beginning of monetary union. External liabilities have increased at a relatively continuous rate over the entire period despite a slightly slower pace of growth at the beginning of this decade owing to the above-mentioned events. Heavy external demand for German securities played a key role in increasing external liabilities. In recent years, however, external liabilities have grown considerably more slowly than assets as current account surpluses tended to favour the creation of external assets.

Change in the net external position:

Germany's net external position thus reached a record high of €645 billion at the end of 2007. At the beginning of monetary union, Germany's net external position was just €34 billion. The increase is attributable largely to the current account surpluses of €569 billion generated since 1999. To a certain extent, these contain a self-perpetuating element as they are linked to the accumulation of yield-bearing assets, and the resulting capital gains, in turn, have a positive effect on the current account.

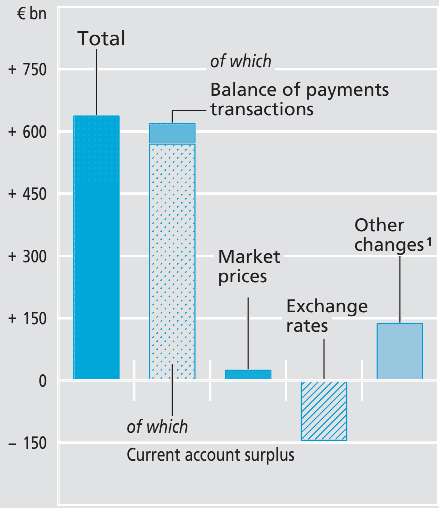
current account transactions …

… exchange rates …

Revaluations following changes in exchange rates and stock market prices also played a major role in the development of the net international investment position. These affected foreign currency items and market-price-related assets. In the nine years since the beginning of monetary union, exchange rate changes have had a negative effect on the international investment position overall (€144 billion). Owing to the trend appreciation of the euro, this reflects the accumulated losses relating to positions denominated in foreign currency which, because of the higher proportion of foreign currency on the asset side, have a negative impact on the net international investment position. At the end of 2007, 32% of external assets and 16½% of external liabilities were denominated in foreign currency; at the beginning of monetary union,[1] the corresponding percentages were 46% and 21%.

Cumulative change in net external assets

Beginning of 1999 to end of 2007



1 Mainly deviations relating to systematics of balance of payments statistics, but also adjustments resulting from stock data on direct investment, changes of a statistical nature, write-downs and missing reports in the balance of payments statistics.

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… and market prices

By contrast, market prices – particularly developments on the share and bond markets – had a slightly positive effect in the period under review, albeit with major fluctuations in individual years (accumulated effect: €25 billion). Market-price-related haircuts were applied only at the beginning of the decade and in 2007. Last year alone, market price changes reduced the net international investment position by €67 billion, in part because,

1 Data relate to the end of June 1999 as a complete international investment position broken down by currency is not available for 1 January 1999. On the "eve of EMU" – 31 December 1998 – with the national currencies of euro-area countries as foreign currencies, the percentages were 63½% and 27%.

in 2007, the share prices of German companies rose significantly more than those of foreign companies.

Increasing degree of financial openness

The sharp increase in Germany's external assets and liabilities in recent years has taken place in an international environment characterised largely by advancing financial market convergence. As a result, the degree of financial openness – measured as the ratio of total external assets and liabilities to GDP – rose significantly in many countries.[2] In industrial countries overall, this ratio has more or less doubled since the beginning of 1999; it has therefore grown much faster than the degree of openness of the real economy. Germany's financial integration into the world economy took place correspondingly fast during this period. At the end of 2007, the degree of financial openness was almost 400%, twice as high as at the beginning of monetary union.

Germany's international investment position by sector

Monetary financial institutions

Central role of credit institutions

The banking sector plays a central role in Germany's increasing financial integration with other countries. Almost half of all of Germany's external assets and liabilities (€2,432 billion and €2,032 billion, respectively) were attributable to credit institutions at the end of 2007. Banks have expanded their foreign business considerably since the beginning of monetary union. Financial credits have accounted for a large share of business, including loans, loans against borrower's notes, bank deposits and assets acquired through assignment. At the end of 2007, they made up two-thirds of banks' external assets and just over half of their external liabilities. The counterparties are mostly foreign banks (interbank transactions), not least banks' own affiliates abroad.

Significant securities claims ...

Monetary financial institutions (MFIs) also held substantial foreign securities worth €735 billion at the end of 2007. The majority of these (€685 billion) were in the form of debt securities. Mutual fund shares and equities, by contrast, played only a minor role. Banks' high level of securities investment should be seen in connection with below-average credit growth in Germany in the reporting period. Banks invested large amounts of the funds available to them in securities, and did so to a considerable extent abroad – taking advantage of the yield spread and accepting the associated risks.[3]

2 See P R Lane and G M Milesi-Ferretti (2007), The external wealth of nations mark II: Revised and extended estimates of foreign assets and liabilities, 1970-2004, Journal of International Economics, 73(2), pp 223-250, and P R Lane and G M Milesi-Ferretti (2008), The drivers of financial globalisation, American Economic Review: Papers & Proceedings, 98(2), pp 327-332.

3 The extent to which the crisis on the international financial markets has affected the external assets of banks – for example, through the granting of additional cross-border loans or acceptance of assets or refinancing operations – cannot be explicitly identified in the highly aggregated IIP figures, especially as some of the distortions occurred only this year, ie after the cut-off date for the international investment position (31 December 2007). Furthermore, certain financial operations, such as the use of derivatives as risk collateral or the granting of standby credit, are not included (directly) in the international investment position. Instead, the international investment position shows a country's external assets and liabilities by cut-off date according to an internationally uniform template, regardless of whether certain positions can be offset at microeconomic level or hedging instruments have been used.

Germany's external assets by sector

Item	Assets				Liabilities			
	Beginning of 1999		End of 2007		Beginning of 1999		End of 2007	
	€ bn	Percent-age share	€ bn	Percent-age share	€ bn	Percent-age share	€ bn	Percent-age share
I Monetary financial institutions [1]	750.0	39.2	2,431.9	48.6	904.3	48.0	2,032.0	46.6
1 Direct investment	34.5	1.8	95.6	1.9	8.4	0.4	56.3	1.3
Equity capital	34.3	1.8	94.9	1.9	8.4	0.4	56.3	1.3
Real estate	0.2	0.0	0.8	0.0	–	–	–	–
2 Portfolio investment	148.5	7.8	734.9	14.7	245.5	13.0	927.0	21.3
Shares	6.6	0.3	23.8	0.5	26.7	1.4	70.6	1.6
Mutual fund shares	4.4	0.2	25.8	0.5	1.5	0.1	2.8	0.1
Bonds and notes	130.7	6.8	642.2	12.8	201.8	10.7	780.6	17.9
Money market instruments	6.8	0.4	43.0	0.9	15.5	0.8	73.0	1.7
3 Loans arising from financial relationships [2]	566.1	29.5	1,598.8	31.9	649.6	34.5	1,047.6	24.0
Short-term	322.2	16.8	1,001.1	20.0	407.7	21.7	826.8	19.0
Long-term	243.9	12.7	597.8	11.9	241.9	12.9	220.7	5.1
4 Other assets/other liabilities	0.9	0.0	2.6	0.1	0.8	0.0	1.2	0.0
II Enterprises and individuals	1,017.7	53.1	2,350.9	47.0	544.7	28.9	1,570.1	36.0
1 Direct investment	277.9	14.5	752.7	15.0	207.6	11.0	624.2	14.3
Equity capital	201.6	10.5	586.4	11.7	99.5	5.3	356.7	8.2
Direct investment loans (net)	42.6	2.2	27.9	0.6	102.7	5.5	249.8	5.7
Loans from direct investors	64.8	3.4	143.1	2.9	110.6	5.9	276.1	6.3
Loans to direct investors	22.2	1.2	115.2	2.3	7.9	0.4	26.3	0.6
Real estate	33.6	1.8	138.4	2.8	5.4	0.3	17.7	0.4
2 Portfolio investment	470.8	24.6	1,053.5	21.1	227.8	12.1	557.0	12.8
Shares	226.4	11.8	311.3	6.2	217.8	11.6	457.4	10.5
Mutual fund shares	79.5	4.2	305.0	6.1	2.1	0.1	38.2	0.9
Bonds and notes	161.3	8.4	429.1	8.6	6.3	0.3	33.7	0.8
Money market instruments	3.5	0.2	8.2	0.2	1.7	0.1	27.7	0.6
3 Loans arising from financial relationships [2]	175.4	9.2	391.3	7.8	72.1	3.8	289.3	6.6
Short-term	163.2	8.5	260.2	5.2	46.2	2.5	130.1	3.0
Long-term	12.2	0.6	131.2	2.6	25.9	1.4	159.2	3.7
4 Trade credits	72.9	3.8	112.4	2.2	35.8	1.9	96.1	2.2
5 Other assets/other liabilities	20.6	1.1	41.0	0.8	1.4	0.1	3.5	0.1
III General government	52.7	2.8	42.0	0.8	425.0	22.6	741.6	17.0
1 Participating interests in international organisations	14.1	0.7	16.5	0.3	–	–	–	–
2 Portfolio investment	–	–	2.9	0.1	401.9	21.4	720.3	16.5
Shares	–	–	0.2	0.0	–	–	–	–
Mutual fund shares	–	–	0.5	0.0	–	–	–	–
Bonds and notes	–	–	2.1	0.0	394.7	21.0	696.0	16.0
Money market instruments	–	–	0.1	0.0	7.2	0.4	24.3	0.6
3 Loans arising from financial relationships [2]	38.0	2.0	22.0	0.4	22.7	1.2	20.1	0.5
Short-term	16.0	0.8	13.6	0.3	7.3	0.4	5.5	0.1
Long-term	22.0	1.2	8.4	0.2	15.4	0.8	14.6	0.3
4 Other assets/other liabilities	0.6	0.0	0.7	0.0	0.4	0.0	1.2	0.0
IV Bundesbank	95.3	5.0	179.5	3.6	8.2	0.4	16.0	0.4
1 Reserve assets	93.9	4.9	92.5	1.8	–	–	–	–
of which Gold	29.3	1.5	62.4	1.2	–	–	–	–
2 Other assets/other liabilities	1.4	0.1	86.9	1.7	8.2	0.4	16.0	0.4
Total (I to IV)	1,915.8	100.0	5,004.3	100.0	1,882.1	100.0	4,359.7	100.0

1 Excluding the Bundesbank. — **2** Loans, loans against borrower's notes, bank deposits, assets acquired through assignment etc.

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... and liabilities

On the financing side, third countries have also become increasingly important for banks as a result of the increased acquisition of securities. At the end of 2007, foreign investors held German bank debt securities worth €854 billion. The percentage of bonds and money market paper issued by German banks and held by foreign investors has therefore quadrupled since the beginning of 1999. By comparison, the entire securitised liabilities of German banks rose only by around half their value in the same period, growing by just €516 billion, to €1,660 billion.

Minor role of direct investment

Compared with financial credits and securities, direct investment accounted for only a relatively small proportion of banks' external assets and liabilities (€96 billion and €56 billion, respectively). However, this is also due partly to the fact that, in the case of bank shareholdings, loans between affiliated companies are not shown under direct investments but, instead, under financial credits, and are therefore not included in these figures. In total, the net external position of monetary financial institutions amounted to €400 billion at the end of 2007.

Enterprises and individuals

Largest net creditor sector in Germany

At €781 billion, the net external assets of enterprises and individuals were almost twice those of banks. This sector therefore constituted the largest net creditor of third countries. Overall, enterprises and individuals held external assets of €2,351 billion and external liabilities of €1,570 billion at the end of 2007.

Focus on securities

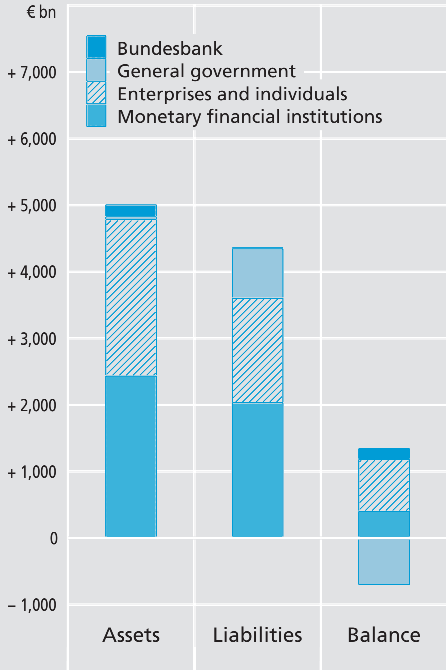
In terms of this sector's external assets, which also include investment funds (excluding money market funds) and insurance companies, securities accounted for the lion's share. At the end of 2007, the corresponding assets amounted to €1,053 billion, liabilities to €557 billion. German enterprises and individuals invested mainly in foreign bonds and notes (€429 billion) and foreign shares (€311 billion), although resident institutional investors played a significant role in both cases. The role of foreign mutual fund shares, which have almost quadrupled to €305 billion since January 1999, was not insignificant either. Moreover, individuals showed great demand for foreign fund products; such products are issued primarily by foreign affiliates of German financial institutions. With regard to the liabilities of enterprises and individuals, shares played an important role (€457 billion). They accounted for 80% of this sector's securitised paper liabilities. Non-resident investors now hold a substantial stake in many German stock companies – almost one-third in terms of market capitalisation (excluding direct investment). By contrast, the role of bonds and notes is insignificant since domestic firms traditionally raise funds through equity and loans. Furthermore, many enterprises active in the capital market have financial subsidiaries abroad which place their bonds in the international capital market. They are therefore not shown as domestic securities liabilities in the international investment position.

Brisk development of direct investment

Direct investment – the traditional form of cross-border integration – has soared in recent years, particularly in the corporate sector. At the end of 2007, enterprises and individuals held foreign direct investment worth €753 billion compared with €278 billion at the beginning of 1999. Foreign proprietors, in turn, invested €624 billion in Germany (January 1999: €208 billion). The main destinations and countries of origin of direct investment are other European Union countries and the USA. These regions account for more than four-fifths of all primary direct investment – both German direct investment abroad and foreign direct investment in Germany.[4] Direct investment also includes cross-border loans between affiliated companies as these are considered a substitute for equity capital. Direct investment credits to foreign affiliates on the asset side of the international investment position amount to €28 billion and are thus substantially lower than direct investment credits on the liability side (€250 billion). There are two reasons for this. First, credits to foreign affiliates (€143 billion) are offset by substantial loans from foreign affiliates to their German parent companies (€115 billion). Second, the loan financing of affiliates in Germany by their foreign parent companies traditionally accounts for a large percentage of foreign direct investment in Germany. In terms of value, real estate, which is also classified as direct investment, plays a major role, particularly in the case of assets. Germans hold real estate abroad worth around €138 billion, while foreigners have real estate worth only €18 billion in Germany. It should be noted that the volume of real estate abroad was subject to considerable value appreciation which was not experienced to the same extent by property in Germany. Furthermore, German residents' holdings

External assets by sector

End-2007



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abroad may be overstated as sales abroad to non-residents may not be fully recorded.

High percentage of short-term loans

The international financial and trade credits of enterprises and individuals amounted to €504 billion at the end of 2007. By contrast, this sector had credit liabilities of €385 billion on its accounts. Half of the assets and one-third of the liabilities were attributable to short-term financial credits at the end of 2007. This was nonetheless a slight decline. The same applies to trade credits, which accounted for almost one-quarter of cross-border credit positions. At the beginning of monetary union, these accounted for about 30%. Thus, loans to enterprises and individ-

4 As of end-2006. See Deutsche Bundesbank, Foreign direct investment stock statistics, Special Statistical Publication 10, April 2008.

uals have shown a slight shift towards longer-term interest fixation despite the continued dominance of short-term rates in the past ten years.

General government

Traditional net debtors

Public authorities in Germany are traditionally net debtors vis-à-vis third countries. At the end of 2007, their net debtor position was €700 billion. Debts had therefore almost doubled from their level at the beginning of 1999 (€372 billion). This is attributable mainly to strong international demand for Bunds, which, owing the high degree of security and liquidity offered by these instruments, has again risen sharply in the course of the financial crisis which began in the summer of 2007. Foreign investors held German government bonds totalling €720 billion at the end of 2007. In comparison, general government's external assets are relatively insignificant. They amounted to €42 billion and consisted mainly of participating interests in international organisations (€16 billion) and financial credits (including bank deposits) (€22 billion).

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Net external assets

Assets, by contrast, played a dominant role in the international investment position of the Bundesbank. At the end of 2007, external assets amounted to €179 billion. They were partly offset by liabilities of €16 billion, which consisted mainly of foreign central bank deposits. The Bundesbank's external assets include currency reserves (€93 billion) and other assets (€87 billion), which also contain asset balances arising in connection with the large-value payment system TARGET.[5] These are subject to significant fluctuation on specific dates and are ultimately of a purely transitional nature. The volume of currency reserves has barely changed since the beginning of monetary union as value increases resulting from revaluations, especially of gold, have offset decreases relating to exchange rates and transactions.

Euro area's influence on financial integration

Introduction of euro as turning point

The introduction of the euro in 1999 marked an important watershed for international players. This applies to both the real economy, where it stimulated foreign trade, and the financial sector. Here, the disappearance of exchange rate risks facilitated cross-border investment in the euro area. Furthermore, it is now possible for investors tied to the national currency to invest abroad to a far greater extent. Conversely, the financing basis of debtors also expanded as a result of the enlarged currency area. However, they have since faced tougher competition for investment capital. This has, in many instances, led to investor-friendly issue terms.

Effects a priori unclear

The benefits of the introduction of the euro in terms of cross-border financial transactions gave rise to the assumption that there would be greater financial integration between euro-area countries. From an investor's perspective, however, it should be noted that all

5 Since 19 November 2007, TARGET2-Bundesbank.

euro-area countries could also be exposed to stronger coincident shocks. Although this is not necessarily a deterrent for more foreign investment, it encourages greater risk diversification – particularly in relation to currency – and thus favours investment outside the euro area.[6] In the end, only empirical analyses can reveal the factors which shaped investment and financing decisions.

Realignment of financial assets ...

From a German perspective, two findings are particularly important.

(1) Financial asset and financing activities have become more international, as described above. In the period under review, external assets and liabilities increased at a much quicker pace than other comparable financial relationships in Germany. The home bias therefore decreased.

(2) The significance of euro-area countries within Germany's international investment position has grown considerably.[7] Other euro-area countries accounted for only around 39% of Germany's external assets and 36½% of external liabilities at the beginning of monetary union compared with 50% and 51½%, respectively, at the end of 2007.[8] Germany is therefore more financially integrated in the euro area than it is in a real economic sense. By way of comparison, the euro area accounted for 41½% of German trade in 2007 and 37% of cross-border services. This strong proportional shift has not, however, led to a regional regrouping of investments recorded in the IIP. Germany's assets and liabilities vis-à-vis countries inside and outside the euro area have increased in absolute terms, albeit at different speeds.

... especially securities

Regional realignment is particularly evident in portfolio investments, which have already expanded at a disproportionate rate owing to the growing trend towards securitising financial relationships. Around two-thirds of German securities claims vis-à-vis other countries and more than half of securities liabilities related to euro-area countries at the end of 2007. In both instances, debt securities played the most important role. From the perspective of German investors, yield considerations were the main incentive for taking part in other euro-area countries' euro issues once exchange rate risks had disappeared. The yields on these countries' government bonds have been consistently higher than those on Bunds in recent years.[9] As Bunds provide

6 The target country of an asset and the denomination currency are not always fully reconcilable. Particularly in the case of debt securities, many countries outside the euro area use the euro as the issue currency.
7 The regional classification of the international investment position always refers to the composition of country groups, and thus the euro area, as of the relevant reporting date. Regional analyses of Germany's external assets use, among other things, information from the IMF's Coordinated Portfolio Investment Survey, in which the Bundesbank also takes part. This allows a reliable regional classification of securities liabilities, even when the original purchaser and actual holder are residents of different countries (see explanations on pp 26-27).
8 Data for the beginning of monetary union date from the end of June 1999. No complete international investment position vis-à-vis euro-area countries is available as of 1 January 1999.
9 Relationships with other euro-area countries in the field of securities were also chiefly influenced by developments in mutual fund shares. German investors (including MFIs) increased their stocks of foreign mutual fund shares by €247 billion to €331 billion between 1999 and 2007 (€319 billion of which was attributable to the euro area). Affiliates of German financial institutions based in Luxembourg provided a large percentage of the underlying mutual funds. Part of the fund assets may have flowed back into the German securities markets. This theory is supported by the large share of German securities liabilities held by Luxembourg.

Evolution of home bias in portfolio investment

The regional diversification of the securities portfolio held by residents is a widely used measure of a country's financial integration into the world economy. If there are no transaction costs and market participants are perfectly informed, the international version of the Capital Asset Pricing Model (CAPM) put forward by Solnik (1974) assumes the regional structure of national securities portfolios to be identical in all countries and to correspond to the global portfolio.[1] In the real world, however, securities portfolios differ considerably from this ideal "benchmark" in nearly all countries and display a distinct bias towards domestic securities. This phenomenon, referred to in the literature as "home bias", is attributable largely to transactions costs in the broadest sense of the term and to imperfectly informed investors, especially with regard to securities issued by non-residents.[2]

The regional composition of the long-term securities (shares, mutual fund shares and debt securities with a maturity of more than one year) featuring in Germany's external assets position will be examined in depth below. The global portfolio is represented by the securities portfolios of the euro area (changing composition), the United Kingdom, Japan and the United States.[3]

Since the introduction of the euro, there has been a tendency towards a reduction in the home bias of German investors' securities portfolios.[4] The share of domestic instruments in German investors' securities portfolio has dropped from as much as 79% at the beginning of monetary union to 58% at the end of 2007. At both reference dates, German securities made up 6% of the global portfolio (see the chart on page 25). At the beginning of monetary union, the securities of other euro-area countries were slightly underrepresented in German portfolios at 11% compared with their share of the global market (12%). However, their share has been continuously rising and is now around 12 percentage points higher than the benchmark. The decline in domestic investors' home bias has therefore coincided with a growing preference for instruments from the rest of the euro area (euro-area bias).

The regional structure of securities liabilities can also be studied in a similar manner. It turns out that, in the past few years, the percentage of German securities held by non-residents has increased, too. Whereas around 95% of the securities outstanding worldwide have been in the portfolios of non-residents (from a German perspective) – with practically little change since the introduction of the euro – only 27% of German securities were held by non-residents at the beginning of 1999. By the end of 2007, this percentage had risen to 47%. The situation is somewhat different vis-à-vis the rest of the euro area. Investors in the euro area excluding Germany were already the holders of 16% of German securities at the end of 2001, 6 percentage points higher than their share of the global portfolio.[5] In subsequent years, the euro-area bias grew even more intensely on the liability side of Germany's external position (to 26% compared with the theoretical benchmark of 14%). What is particularly noteworthy is the high percentage of German debt securities outstanding held by investors who are resident in the rest of the euro area (31%) owing to the liquidity and security these instruments provide.

1 B Solnik (1974), An Equilibrium Model of the International Capital Markets, Journal of Economic Theory, 8, pp 500-524. — **2** Recent studies of the determinants behind the regional composition of securities portfolios include P R Lane (2005), Global Bond Portfolios and EMU, ECB Working Paper Series No 533 and P R Lane and G M Milesi-Ferretti (2004), International Investment Patterns, CEPR Discussion Paper No 4745. — **3** The international investment position, by contrast, shows claims on, and liabilities to, all countries. This leads to a slight understatement of the home bias as Germany's share of the global portfolio is somewhat overestimated. — **4** End-of-year levels are shown. The 1998 value corresponds here to the "opening balance sheet" on 1 January 1999. — **5** A comparable breakdown by region of German securities portfolios held by non-residents was not possible prior to 2001; see explanatory notes on pp 26-27.

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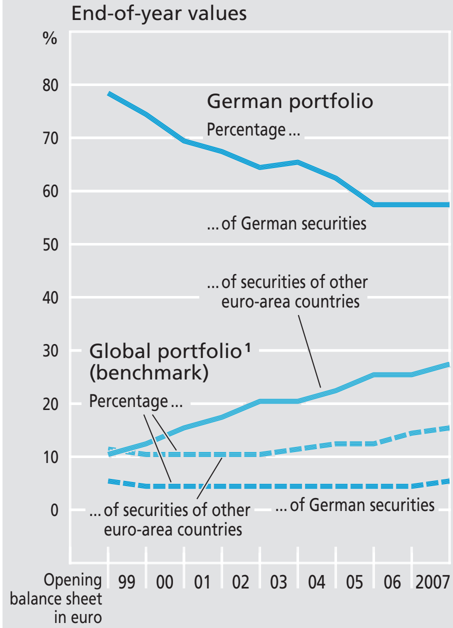
credit and liquidity advantages for investors, however, they appear to be an attractive "safe haven" for foreign investors, particularly in times of heightened market tension. A role was also played by supply-side influences such as the temporary increase in issues of public bonds in Germany as a result of higher budgetary deficits at the beginning of this decade and increased direct refinancing in the capital market. In addition, central and state government tried to make their issues appealing to national and particularly international investors, for example, by increasing issue volumes, publishing an issue calendar and jointly issuing jumbo bonds.[10] As mentioned above, banks increasingly sought refinancing in the international capital market.

From home bias to euro-area bias

More recent empirical studies also confirm the above trends from another perspective. They show that the share and bond portfolios of German investors did, in fact, become more international in the period under review, despite a persistently substantial deviation from the "theoretical benchmark" resulting from the international Capital Asset Pricing Model (CAPM). The same trend can be seen in foreign portfolio investment in Germany. Germany's financial relationships with other euro-area countries go – by contrast – well beyond the dimensions attributed to the euro area because of its economic weight (see explanations on p 24). Hence, the decreasing home bias seems to have been offset by an increased euro-area bias.

Preferences of German securities investors

End-of-year values



1 Sources: ECB, Eurostat, BIS and Bundesbank calculations.

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More broadly-based econometric studies, which take into account other determinants of portfolio investments, such as trade integration, information differentials and geographical distance, also support this hypothesis. Financial globalisation seems – at least in the case of bonds – not to be uniform, but rather to lead to strong mutual ties between euro-area countries.[11]

10 See Deutsche Bundesbank, Structural changes in the German capital market in the run-up to European monetary union, Monthly Report, April 1998, pp 55-69, and Deutsche Bundesbank, The market for federal state bonds, Monthly Report, June 2008, pp 31-46.
11 See P R Lane (2005), Global Bond Portfolios and EMU, ECB Working Paper Series No 533.

Regional breakdown of German securities liabilities according to the Coordinated Portfolio Investment Survey

The regional classification of a country's securities liabilities is generally fraught with difficulties. At a national level, usually only the direct purchaser can be recorded statistically and not the actual holder of a security.[1] This problem also occurs when drawing up the German international investment position. Thus, on account of the importance of the City of London, the United Kingdom plays a dominant role in the direct purchase of German securities. The Coordinated Portfolio Investment Survey (CPIS), a survey of portfolio stocks in individual countries, which the IMF has coordinated for several years and in which Germany also participates, now offers considerable additional information which can be used to create a more reliable picture of the foreign holders of German securities.[2]

A total of 74 countries currently take part in the survey. At the end of 2006 – the most recent year for which data are available – they recorded portfolio investments of around US$32,400 billion. The United States and the United Kingdom, the two countries with the largest securities markets, play the most important role in both the provision and absorption of funds. Furthermore, the mutual ties between them are exceptionally strong. At the end of 2006, German securities worth US$2,540 billion (or €1,929 billion) were reported to be in foreign hands. This largely corresponded to the German securities liabilities that were recorded at that time in the international investment position (€1,931 billion).[3]

The CPIS therefore essentially offers a useful database for analysing the breakdown of holders of German securities abroad. However, it must also be remembered that economically important countries, such as China, India or oil-producing countries in the Middle East, do not take part in the survey. Another disadvantage is that it takes more than a year for the data to become available. Therefore, at the current end, adjustments need to be made to the way the data are used.

The regional classification is based on the total stock of German securities held abroad. The total stock appearing in the international investment position will continue to be calculated this year using the cumulated net turnover in the balance of payments (see the annex on pp 28-32).[4] The stocks are valued at prevailing market prices using estimates which are made separately for the individual instruments. The total stock is allocated to the individual countries in two steps.

– For CPIS-participating countries, the shares calculated in this survey are used.[5]
– For the other countries, as before, the cumulated net transactions are used as a basis.

1 The purchaser and the holder are not one and the same if the original purchaser – often a bank – sells on the security. If the purchaser and the holder are domiciled in different countries, the regional breakdown of the securities liabilities can no longer be reliably ascertained on the basis of the transaction data. — **2** See IMF, Coordinated Portfolio Investment Survey – Guide, second edition, 2002. — **3** The two sets

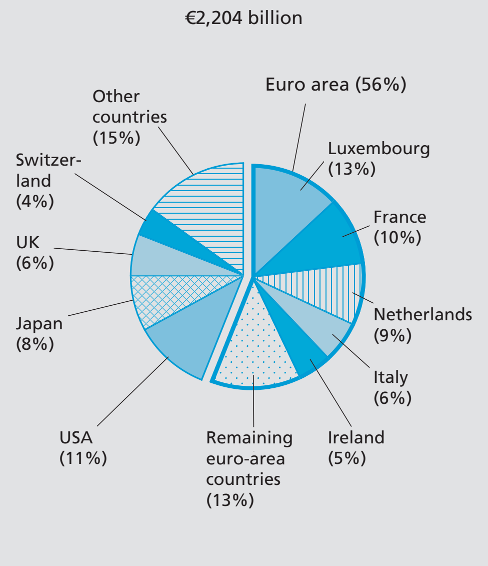
Deutsche Bundesbank

Overall, the following picture emerges of holders of German securities abroad at the end of 2007. Around 56% of German interest-bearing instruments and equities in foreign investors' portfolios were held by investors from other euro-area countries, with Luxembourg, an important fund location, accounting for 13% of this and France for 10%. This can be taken as evidence for the close interdependence of the capital markets in the euro area (see the adjacent chart). At 11% (USA) and 6% (UK), the Anglo-Saxon countries, which traditionally have a strong preference for capital-market-oriented financing, also invested heavily in German securities. Japan, the country with the highest level of net external assets, accounted for 8%. It is noteworthy that the foreign central banks of CPIS-participating countries held around 13% (€265 billion) of the German securities purchased by non-residents as currency reserves. It is likely that these were primarily Bunds, which are characterised by a high degree of liquidity and security.

A comparison of the percentage shares of the individual holding countries with those of the initial counterparties, as shown in the balance of payments, allows conclusions to be drawn on the importance of individual countries as trading centres for German securities. The UK, which, on account of the City of London, has a 55% share of the sales and purchases of German securities recorded in the balance of payments, is in first place in this respect. As already mentioned above, however, the UK accounts for only 6% of German securities held abroad. The vast majority of securities purchased are evidently sold on to investors in other countries. France also plays a more important role as a direct counterparty in German securities transactions than is shown in the regional breakdown of holders of securities.

Regional breakdown of German securities liabilities

End of 2007



of statistics differ with regard to the methodology used for both the collection and the valuation. — **4** From 2009, the total volume of German securities held by non-residents will be calculated for each type of security by deducting the portfolio investment of German residents from the market volume. — **5** As the 2007 CPIS data are not yet available, the 2006 shares were used.

Annex

Methodological notes on the international investment position

Definition

The international investment position (IIP) is a financial statement setting out a country's external financial assets and liabilities valued at market prices at a specific reference date. The holdings included in the IIP, or to be more precise changes in these holdings, reflect not only financial transactions, which are also included in the balance of payments, but also changes to market prices and exchange rates within a given period. The IIP is drawn up on the basis of the IMF's Balance of Payments Manual (fifth edition).[12]

Breakdown by sector

The asset and liability positions included in the IIP (external receivables and payables) are broken down by domestic sector. These sectors comprise monetary financial institutions (MFIs), enterprises and individuals, general government, and the Bundesbank as the monetary authority. On the asset side, data are broken down by the domestic sector holding the asset; the IIP reflects the market value of a sector's external financial assets. By contrast, items on the liability side are broken down by the domestic sector of issuance; the IIP therefore measures the market value of a sector's external liabilities.

MFIs

Monetary financial institutions include all institutions that accept deposits or near-deposits from non-MFIs and grant loans for their own account and/or invest in securities. The MFI sector therefore comprises all credit institutions resident in Germany and domestic money market funds. The Bundesbank, as the national central bank, is not included in this sector for the purposes of the IIP.

Enterprises and individuals

The enterprises and individuals sector includes all enterprises and individuals based or resident in Germany (both employed and self-employed persons and all other private individuals) as well as insurance and investment companies and their funds, with the exception of money market funds, which are classified as MFIs.

General government

Besides central, state and local government, the general government sector also includes the social security funds.

Bundesbank

The Bundesbank as the national central bank represents the fourth sector and provides information on reserve assets, other claims arising from securities as well as receivables and payables arising from loans and deposits.

Breakdown by instrument

In addition, the IIP includes a breakdown by underlying instrument. These are divided into the main categories direct investment, portfolio investment and other capital investments (mainly loans and deposits), and reserve assets, which are relevant only for the Bundesbank.

Direct investment

Direct investment comprises participating interests, for instance in the form of equities and other capital stakes, and also loans to affiliated enterprises abroad provided the stakeholding or the share of voting rights held is at least 10%. In addition, direct investment includes cross-border ownership of real estate.

Portfolio investment

Portfolio investment includes equities, where these are not counted as direct investment, as well as

12 Work is currently in progress on the sixth edition, which is scheduled to be published in 2009.

mutual fund shares, bonds and notes, as well as money market paper.

Loans and deposits

Loans are broken down into trade and financial loans and differentiated by maturity. In addition, this item includes the respective sector's (bank) deposits.

Reserve assets

The Bundesbank's reserve assets comprise gold holdings, claims on the IMF (Special Drawing Rights, or SDRs, and the IMF reserve position) and foreign currency reserves.

Data sources and data compilation

Publication and revision practices

The IIP is published quarterly, three months after the end of the reference quarter, and annually, nine months after the end of the reference year. The annual IIP differs from the quarterly IIP in that its data base is more exact. Once the annual IIP has been drawn up, the previously published quarterly data are adjusted and/or revised. The information for the quarterly IIP are frequently based on estimates. By contrast, when determining the year-end positions to be published in September, all IIP items are recalculated from scratch taking into consideration the primary statistical data that have since become available. The calculation is based not only on the current reporting year, but also includes the last four reporting years including the associated quarterly data. In geographical terms, the year-end levels are also broken down to the level of the individual countries specified in the country list. Consequently, any major methodological changes and/or revisions have in the past been carried out in September of the year concerned and then made public in a press release.

Data sources: stock data ...

The IIP should always be calculated using the available stock data. Here, the Bundesbank can draw on banking statistics in the form of banks' monthly balance sheet statistics and external status as well as enterprises' external status. Statistics on direct investment stocks are based on the annual reports on direct investment abroad submitted by enterprises[13] and individuals and the reports of foreign enterprises and individuals on their direct investment in Germany. This information is also used to establish the IIP. The statistics on investment funds are also included in the calculation of the IIP. An additional source of data – securities deposit statistics, which reflect domestic and foreign depositors' securities holdings with domestic custodian banks on a security-by-security basis every quarter – was added at the end of 2005. In addition, the Bundesbank's accounting division also provides monthly data with which to calculate its external position.

... transactions and estimates

Transactions (buying and selling) may result in changes in holdings, or their value may fluctuate as a result of stock price and market price movements. The IIP therefore includes not only stock data but also balance of payment transaction reports provided by resident MFIs and enterprises. The latter are used to establish estimates where no up-to-date stock data are available. In this case, turnover is aggregated, and individual holdings are determined using additional calculations and estimates.

Direct investment

The annual stock statistics on direct investment are the basis on which the appropriate IIP positions are calculated. All enterprises and individuals in Germany which hold stakes or voting rights of 10% or more in an enterprise abroad or in which foreign investors own a stake or voting rights of 10% or more are required to submit a report. Currently,

13 This includes credit institutions.

those with a balance sheet total of less than €3 million are exempt.

Equity capital

The sub-item equity capital is calculated from nominal capital data and the pro-rata reserves. Since the reporting year 2004, capital stakes in listed enterprises are valued at market prices based on stock prices as at the reference date. Equity capital in non-listed enterprises is valued at the respective book values as listed in the enterprises' balance sheets on the reporting date.

Direct investment loans

Direct investment loans may take the form of loans by direct investors to their affiliates or of reverse investment, ie loans extended by subsidiaries to their parent companies. Here, the "directional principle" applies for statistical purposes. Under this principle, all credit transactions that can be traced back to a German investment abroad, ie both parent companies' claims against their foreign subsidiaries and the parent companies' liabilities to their foreign affiliates, are booked on the asset side of the IIP. The German parent companies' credit liabilities to their foreign subsidiaries are deducted from their credit claims. The liability side, by contrast, depicts the financial ties between foreign parent companies and their domestic subsidiaries. Again, the foreign parent companies' credit liabilities to their German subsidiaries are deducted from their credit claims. Loans are reported at book value. Where an MFI is involved in the credit relationship between affiliated enterprises, either as a lender or borrower, the receivables or payables in question are counted not as direct investment but as financial loans.

Real estate

The item real estate comprises the domestic and foreign real estate holdings of banks, enterprises and individuals. It is classified as direct investment. As there are no stock statistics for this item, figures have to be estimated on the basis of aggregate balance of payments transactions and valued at prevailing market prices. The Federal Statistical Office provides a special price index for domestic real estate, while foreign property and real estate are valued with the aid of a price index drawn up by the Bank for International Settlements (BIS).

Special features

The annual direct investment stock statistics are not available until around 15 months after the end of the reference year. In order to be able to provide up-to-date information on equity capital despite this delay, the transactions as recorded in the balance of payments statistics, which have been conducted in the meantime, are added to the latest available stock statistics. Direct investment loans are also estimated for periods for which no balance sheet information is available.

Portfolio investment

With the publication of the IIP for year-end 2007, securities holdings were, for the first time, determined using real security-by-security stock statistics. However, this procedure is currently applied only to the asset side, ie to foreign securities held by German investors, and to reporting periods from the end of 2006.

Security-by-security compilation

Pursuant to an ECB guideline (2004/15), portfolio investment for the IIP should always be measured on a security-by-security basis. The percentage of holdings not determined on a security-by-security basis must not exceed 15% of total securities claims and liabilities on the reference date. To comply with ECB requirements, the Bundesbank's securities deposit statistics were extended accordingly at the end of 2005. Since then, German custodian banks report their own portfolio holdings and their clients' securities holdings on a security-by-security basis once a quarter. The Centralised Securities Database (CSDB) set up by the ESCB is used to calculate IIP positions based on the security-by-security data. The CSDB is a centralised securities database containing a range of statistically relevant information on every security. By merging information on both security-by-security holdings and securities master data in one database, various securities aggregates such as securities receivables and payables for the IIP can be determined comparatively flexibly.

Transaction data formerly aggregated

Securities claims for the reporting periods prior to the end of 2006 were determined by aggregating the securities sales and purchases listed in the balance of payments per type of security. To this end, the transaction values from the balance of payments statistics were converted into nominal values with the aid of average stock market prices and exchange rates or indices during a period and added to the nominal holdings of the preceding period. Holdings at market prices were based on nominal holdings valued at the stock market prices and exchange rates on the reference date. The Morgan Stanley Composite Index was used to determine the market value of nominal foreign share holdings, while information provided by JP Morgan and data from Merrill Lynch on interest rates and yields by type of bond and remaining time to maturity was used for bonds.

Exceptions

However, this calculation method was not applied to MFIs' securities claims, as these holdings were reported as part of the monthly balance sheet statistics, or to foreign money market paper, for which stock data had already been supplied in the past.

General government securities claims

To date, it had been assumed that general government holds no securitised external assets. Consequently, no holdings were reported on the asset side of the IIP for this sector. As the new securities deposit statistics show that general government does indeed invest in foreign securities, albeit at comparatively low levels, the appropriate information was included in the IIP for the reporting periods from the end of 2006 onwards when the procedure for collecting statistics was revamped.

Changeover planned on liability side

The collection procedure pursuant to ECB/2004/15 is scheduled to be introduced on the liability side in 2009. It is to be phased in gradually and concluded with the presentation of the annual IIP for 2008 in the autumn of 2009. German securities liabilities are currently still calculated merely by aggregating balance of payments transactions, ie much as securities claims were for the reporting periods prior to the end of 2006. Domestic shares are valued at market prices based on the DAX. Bonds issued by both the public and private sectors and reported on the liability side are valued at average prices as listed in the issuance statistics.

Subtraction method used to determine securities liabilities

By contrast, the future compilation of real stock data is intended to allow securities liabilities, too, to be measured more precisely than in the past. Unlike securities claims, however, holdings of German securities cannot be determined by questioning foreign investors directly, nor can this information be reliably gleaned from data provided by custodian banks. They are therefore determined indirectly using the subtraction method. Two stock measures are necessary to apply the subtraction method on a security-by-security basis: the total volume of the domestic security in circulation (ie the original issuance volume minus any redemptions) and the total volume of this security held by residents (resident holdings). The IIP securities liabilities, ie the volume of domestic securities owned by non-residents, are then calculated as the difference between total volume in circulation and resident holdings.

Loans and deposits

The data on loans and deposits are compiled on the basis of banks' external status as well as the external status of enterprises, individuals and general government. Loans are broken down by type of loan (trade loan, financial loan) and maturity (maturity of up to or more than one year).

Reserve assets

The Bundesbank's reserve assets comprise gold, claims against the IMF (reserve positions in the International Monetary Fund and Special Drawing Rights) and foreign currency reserves. Foreign currency reserves are liquid, secure and marketable receivables and deposits with non-resident MFIs and monetary authorities in a foreign currency as well as foreign currency investments in the form of securities issued by non-residents. The term "non-resident" is defined as all those not resident within the euro area.

Special features

Data on reserve asset holdings are compiled on the basis of information provided by the Bundesbank's accounting division. Gold is valued at the prices prevailing on the London Gold Exchange on the reference date, while foreign currency receivables are valued at the relevant exchange rates; SDR prices are applied to IMF reserve positions.