Financial markets

Financial market setting

Factors influencing financial markets change

Tensions on the financial markets eased on balance during the first few months of this year, although the mood dampened again noticeably of late. The exceptional easing of monetary policy on both sides of the Atlantic initially played a major part in calming the markets. In particular, the Eurosystem's three-year refinancing operations facilitated capital market access for many issuers – above all, for the public sector debtors of Spain and Italy, which saw their yields fall significantly. By contrast, in an environment of declining risk aversion and a largely positive underlying economic sentiment, the diminishing flight to safety led to a slight increase in Bund yields during that period.

Regained confidence boosted the financial markets across the board in the first quarter. In addition to the markets for debt securities and corporate credit default swaps, it also had a positive effect on the stock markets, sending prices up. European credit institutions, whose financing conditions picked up significantly for a while, were the main beneficiaries. Nevertheless, they remain extremely sensitive to market participants' reassessments of the solvency of sovereign debtors given their (growing) exposure to government bonds.

This became apparent from April onwards, when the optimism of the first three months gave way to considerable disillusionment. Concern about the future of Greece and the budgetary situation in Spain proved to be a negative factor, as did deteriorating economic signals. Renewed safe-haven flows resulted. In this setting the euro depreciated slightly on the whole, amid fluctuations, from the beginning of the year.

Exchange rates

Euro down against the US dollar on balance since beginning of the year

On the foreign exchange markets, the focus in the last few months was on the debt crisis in several euro-area countries and on changes in appraisals of monetary policy measures on both sides of the Atlantic. After the euro-dollar exchange rate – buoyed by the approval of the new aid package for Greece and the unexpectedly sharp rise in the Ifo business climate index – had stood at US$1.34 at the end of February, it fell again substantially. By mid-March it was down to US$1.31. The euro was depressed by the application of collective action clauses in Greece and growing concerns about the financial situation in Spain after the Spanish government announced it would not meet its budgetary objective for 2012. The Fed's assessment that the economic situation in the US had improved somewhat against the backdrop of an easing of the US labour market put the euro under additional pressure at that time.

In the second half of March, the euro temporarily regained much of the lost ground after Spain's successful bond auction and amid speculation that the Fed would be launching a new bond purchase programme. However, the euro again dropped below the US$1.31 mark in early April, when the publication of the minutes of a Federal Reserve meeting ended expectations of a new round of quantitative monetary policy easing in the United States. At the same time, the ECB signalled it would be continuing its non-standard monetary policy measures. On top of that, the situation on the Spanish and Italian bond markets deteriorated further.

Thereafter, the euro-dollar exchange rate largely moved sideways amid fluctuations. On the one hand, the euro was burdened by political uncertainties in several euro-area countries and concerns about the effectiveness of

Exchange rate of the euro

Daily data; log scale

1 Exchange rate at the start of monetary union on 4 January 1999. **2** As calculated by the ECB against the currencies of 20 countries.

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the fiscal compact. On the other hand, it was supported by the publication of a renewed increase of the Ifo Institute's business climate index as well as by US labour market and growth figures that had fallen short of financial market players' expectations. The downgrade of Spain's creditworthiness by one rating agency had no lasting effect on exchange rate developments. The euro fell markedly of late after attempts to form a government in Greece failed and following the announcement of new elections. As this report went to press, the euro stood at US$1.28, which is equivalent to an appreciation by 1½% since the beginning of the year.

Euro appreciates against the yen …

The euro was latterly 1% stronger against the yen compared with the start of 2012. For one thing, the yen was weakened by the expansion of quantitative easing of Japanese monetary policy. Moreover, the revelation of hidden forex market interventions by the Bank of Japan in the fourth quarter of 2011 led to speculation about further interventions in the event of a noticeable yen appreciation. As uncertainty grew about the ability to master the European debt crisis, jitters on the financial markets heightened again in recent weeks. This lent support to the yen, which is evidently considered a comparatively safe investment haven, and kept the rise of the euro-yen exchange rate within limits.

… and depreciates against the pound sterling

The euro fell against the pound sterling during the period under review. After one rating agency downgraded the outlook for Great Britain's creditworthiness, the euro-pound sterling exchange rate made slight gains in the second half of March. However, the mood reversed again to the detriment of the euro in April, after the risks that existed in several euro-area countries in connection with the debt crisis again received more attention. As this report went to press, the euro stood at £0.81, which was 3½% below its value at the beginning of the year.

Effective euro exchange rate

The euro's average value vis-à-vis the currencies of 20 major trading partners depreciated by about 1½% from the beginning of the year. Whereas the euro posted the above-mentioned slight exchange rate gains against the yen, it depreciated against most of the others of these currencies. The price competitiveness of euro-area suppliers compared with important trading partners improved somewhat as the euro depreciated, but is still slightly unfavourable as measured by the long-term average.

Securities markets and portfolio transactions

International bond markets

Yields on US, German and Japanese government bonds with a maturity of ten years rose slightly in the opening months of this year in line with the easing on the money markets, the decline in market players' risk aversion and the – on the whole – positive underlying cyclical trend.[1] In April and May the re-emergence of uncertainty about the sustainability of public finances and the robustness of the banking sector in several euro-area countries again led to falling long-term interest rates in the above-mentioned economies, which investors consider to be safe havens. As a result, the yield on German Bunds in particular fell by just over ½ percentage point compared with the beginning of the year; at mid-May it stood at a historically low level of just below 1.3%. Yield changes were less marked on balance in the USA and Japan, where ten-year government bonds of late yielded 23 and 13 basis points less than their respective levels at the beginning of 2012. The yield gap between US and German government paper widened to 41 basis points as a result. This is likely attributable to increasing safe-haven flows, which were probably stronger in the case of Bunds than of US Treasuries.

German yield curve flatter

The larger inflows to Bunds, which are considered to be particularly liquid and safe, were reflected in a flattening of the German yield curve, which is estimated on the basis of Federal securities. Whereas the near-money market one-year interest rates changed only slightly on balance, yields decreased particularly in the medium and long-term maturity segment. The flattening of the yield curve was especially noticeable in the maturity segment up to five years. Liquidity effects may have played a part in this – a supposition which is supported by

1 The implied volatility, which is derived from options on the euro Bund future and is a measure of investor uncertainty, hovered around its multi-year average of 6.6% in the spring months after rising to levels of more than 10% in November. It stood at 6.4% at last report. In the USA, the comparable option value for Treasuries was, at 4.7%, even close to its pre-crisis level of late.

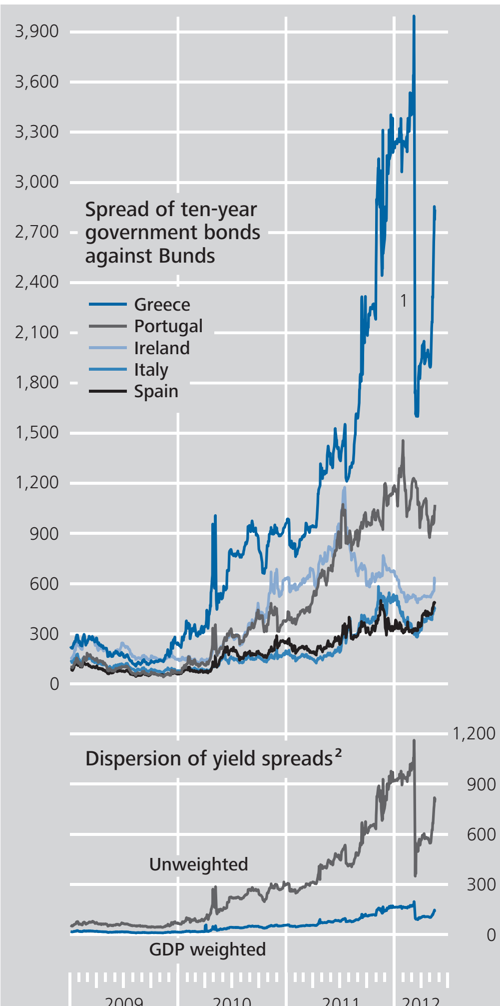
Liquidity measure: spread of KfW bonds over Bunds

Basis points, weekly averages

Sources: Bloomberg and Bundesbank calculations.
Deutsche Bundesbank

Yield spreads in the euro area

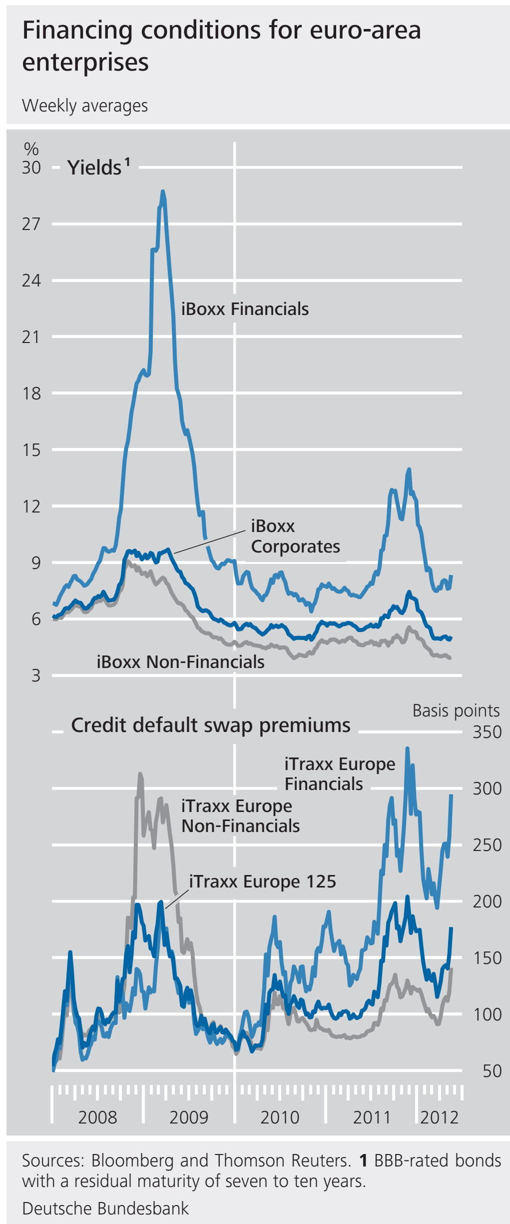
Basis points, daily data



Sources: Thomson Reuters and Bundesbank calculations. **1** Debt haircut on 9 March 2012. **2** Standard deviation of yield spreads of euro-area government bonds.
Deutsche Bundesbank

Financing conditions for euro-area enterprises

Weekly averages



Sources: Bloomberg and Thomson Reuters. **1** BBB-rated bonds with a residual maturity of seven to ten years.
Deutsche Bundesbank

the fact that the yield differential between bonds issued by the KfW, which are equally safe but differ in terms of liquidity, on the one hand and Bunds on the other widened considerably. Investors evidently did not restrict their liquidity-driven demand to long-dated issues, however, but also had an appetite for medium maturities in particular.

The decline in nominal yields was also due in part to falling real interest rates, which, up to and including the ten-year segment, have in the meantime entered negative territory in Germany. By contrast, the inflation expectations for the European index of consumer prices, which are derived by comparing inflation-indexed and nominal bonds, remained unchanged for the next ten years, whereas they fell on balance in the five-year segment. Thus, the forward inflation rate from five years up to ten years increased by some 10 basis points to 2.10%. However, the above-mentioned safe-haven and liquidity inflows, which are usually first seen in nominal bonds, currently make it more difficult to interpret the break-even inflation rates owing to time-varying and maturity-dependent liquidity premiums.

Euro-area yield spreads at level of early 2012

The yield spreads between same-maturity bonds of different euro-area countries narrowed at first compared with the end of 2011. Interest rate dispersion and the GDP-weighted yield spread of long-term government bonds of the other euro-area countries over comparable Bunds contracted after posting highs between the end of 2011 and March. The primary factors behind this included the Eurosystem's second three-year tender and the exchange – with considerable private sector involvement – of old Greek sovereign bonds for new Greek bonds with maturities running up to 30 years and shorter-dated EFSF bonds. In April and in early May, however, unfavourable economic data and market perceptions that consolidation efforts in several euro-area countries were flagging caused ten-year interest rates to rise and led to disappointing primary market issuance. With yields on Bunds decreasing at the same time, this led to a renewed widening of spreads. The GDP-weighted yield spread currently stands at 402 basis points, compared with 412 basis points at the beginning of the year.

Financing conditions for enterprises improved

During the reporting period, yields on BBB-rated European corporate bonds fell – amid fluctuations – to 5.2%; they are therefore around 125 basis points below their five-year average.[2] The interest rate spread over Bunds contracted to 391 basis points.

2 Yields on BBB-rated corporate bonds in the iBoxx bond index serve as a basis. This index covers bonds issued by banks and non-banks.

Net sales in the bond market up

The changing financing conditions on the bond markets were partly reflected in the buying and selling figures on the German bond market where, overall, gross issuance totalled €396 billion in the first quarter of 2012. It was therefore higher than the level in the previous quarter (€339½ billion). After deducting redemptions, which also increased, and taking account of changes in issuers' holdings of their own bonds, debt securities totalling €22 billion were sold on balance. In addition, foreign borrowers sold paper worth €38 billion in Germany. Thus, funds totalling €60 billion were raised on the German bond market in the reporting period.

Public sector borrowing

In the first three-month period of 2012, the public sector raised €63½ billion in the bond market, compared with net redemptions of €10½ billion in the previous quarter. These figures include issues by resolution agencies of German banks which for statistical purposes are classified as belonging to the public sector. Central government issued mainly Federal notes (€13½ billion), and to a lesser extent 10 and 30-year bonds (€3½ billion and €2½ billion respectively). By contrast, the German Federal government redeemed Federal Treasury discount paper (Bubills) and two-year Federal Treasury notes (Schätze) totalling €6 billion and €3½ billion net respectively. On balance, the German Länder tapped the capital market in the amount of €12 billion in the quarter under review.

Net redemptions of corporate bonds

Domestic enterprises redeemed debt securities worth €6 billion net in the first quarter of 2012. These were mainly bonds with a maturity of less than one year. Notably financial corporations, which do not count as belonging to the banking sector, have been scaling back their capital market debt for some time now, whereas the enterprises of the real economy have used the domestic capital market as a source of finance.[3]

Net redemptions by credit institutions

Domestic credit institutions, which have posted strong growth in deposits and inflows of funds from abroad during the financial crisis, reduced their capital market debt further (by €35½ billion) in the first quarter of 2012. In particular, they redeemed other bank debt securities, which can be structured flexibly (€19 billion), as well as public Pfandbriefe (€14 billion) and mortgage Pfandbriefe (€5½ billion). Specialised credit institutions, meanwhile, issued debt securities totalling €3 billion net.

Investment activity in the German securities markets

€ billion

Item	2011 Q1	2011 Q4	2012 Q1
Debt securities			
Residents	26.4	– 9.4	47.9
Credit institutions	– 11.4	– 31.9	1.9
of which			
Foreign debt securities	0.5	– 22.7	– 0.2
Deutsche Bundesbank	0.9	13.8	0.5
Other sectors	36.8	8.6	45.5
of which			
Domestic debt securities	15.8	– 0.2	8.6
Non-residents	40.2	– 35.8	12.2
Shares			
Residents	8.3	15.2	7.1
Credit institutions	5.8	7.2	5.5
of which			
Domestic shares	7.6	2.5	10.2
Non-banks	2.6	8.0	1.6
of which			
Domestic shares	4.2	5.2	– 0.1
Non-residents	– 10.5	– 5.6	– 8.7
Mutual fund shares			
Investment in specialised funds	14.2	22.6	21.6
Investment in funds open to the general public	0.6	– 2.7	– 0.5
of which			
Share-based funds	0.2	0.8	– 0.9

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Purchases of debt securities

In the first quarter of 2012, domestic non-banks were the main buyers on the domestic bond market; they added paper worth €45½ billion to their portfolios. The focus of investor interest here was on foreign paper. A large part of the buying by non-banks was accounted for by mutual funds, which posted strong inflows of funds at the beginning of the year and invested heavily in foreign bonds. Non-resident investors bought German debt securities for

3 Moreover, German enterprises issued a significant volume of debt securities at foreign financial centres through their financing enterprises. These issues are not included in the national figures analysed here.

Equity market

Weekly averages

Sources: Thomson Reuters and Bundesbank calculations. **1** End-of-month levels; derived from a three-stage dividend discount model using three to five-year IBES earnings growth expectations. **2** Expected future volatility, calculated from prices of options on the Euro Stoxx.
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€12 billion. On balance, these were solely bonds issued by the public sector. German credit institutions and the Deutsche Bundesbank also purchased interest-bearing paper for €2 billion and €½ billion respectively.

International stock markets supported by liquidity effect and economic hopes

During the winter months the international stock markets initially underwent a period of rallying stock prices which was fuelled to a very great extent by the Eurosystem's three-year refinancing operations. As the yields on Spanish and Italian government bonds dropped, the stock prices primarily of banks with large exposure in those countries rose. Moreover, a more optimistic worldwide economic outlook sent prices soaring at that time.

Stock market losses due to greater uncertainty about effectiveness of fiscal compact

However, these drivers of the stock price rally began to falter in April. For instance, when the Spanish budget deficit proved to be higher than expected, doubts arose regarding the sustainability of Spain's public finances. In addition, concerns about the country's banks came to the fore. This made capital market access more difficult and led to Spain – and, of late, to several Spanish and Italian banks – being downgraded. On top of that, slackening reform efforts and upcoming elections in various euro-area countries are likely to have unsettled market participants. Finally, leading indicators deteriorated in part, causing economic prospects to diminish. This led to the onset of falling prices on equity markets throughout the euro area, particularly in the peripheral countries.

As this report went to press the Euro Stoxx index was 4.5% lower on balance than at the end of 2011. Since then, the corresponding bank index has fallen by as much as 19.4%. In fact, since reaching a high in March, it has declined by 32.7%. In this context, the above-average drop in European banks' stock prices is closely related to their exposure to peripheral government bonds. This has again brought the risks stemming from the interconnectedness of governments and banks back to the fore. German stocks fared somewhat better on the whole. At the time of going to press they were 3.9% above the level at the turn of the year.

Risk premiums down since end-2011, but rising again of late

The risk indicators for the stock market mirrored stock price movements. The implied volatility of options on the Euro Stoxx, which reflects the uncertainty regarding the further trend of stock prices, declined markedly up to March before rising again somewhat. Similarly, the risk premium on the European stock market, which can be derived for the Euro Stoxx using a three-stage dividend discount model, rose in April against the previous month. It was thus back at its end-of-year level at the time of

going to press. The risk compensation investors demand for investing in bank shares has increased by ½ percentage point on balance since December amid, on the whole, improved earnings growth expectations following a temporary decline.

Contrasting with the euro area, the development of stock prices of US enterprises – and of US banks in particular – was less volatile in the past months. Since the beginning of the year, the broad S&P 500 index has risen by 3.0% on balance, with US bank shares advancing by as much as 11.4%. US bank shares performed better, first, due to the fact that the euro-area sovereign debt crisis is of less significance to US banks because they are less exposed to the euro area. Second, the Fed's announcement that it will maintain its highly accommodating monetary policy is likely to have driven prices up.

Stock market funding and stock purchases

Issuance activity in the German stock market was still relatively subdued in the first three months of 2012. Domestic enterprises issued €1½ billion worth of new shares; these were listed and unlisted equities in almost equal measure. The volume of foreign equities outstanding on the German market fell by €3 billion. Equities were purchased primarily by German credit institutions (€5½ billion), which invested solely in domestic paper on balance (€10 billion). Resident non-banks bought shares for €1½ billion, with the main focus on foreign paper. By contrast, foreign investors sold German shares totalling €8½ billion, as they had frequently done in the past in the run-up to dividend payment dates.

Sales and purchases of mutual fund shares

During the reporting period, domestic investment companies recorded inflows of €21 billion, after raising funds totalling €20 billion in the previous three months. The fresh funds benefited mainly specialised funds reserved for institutional investors (€21½ billion). Of the funds open to the general public, almost only open-end real estate funds sold new shares for €1½ billion. By contrast, share-based funds in

Major items of the balance of payments

€ billion

Item	2011 Q1	2011 Q4	2012 Q1
I Current account[1, 2]	+ 40.5	+ 47.7	+ 40.9
Foreign trade[1, 3]	+ 40.8	+ 40.1	+ 45.5
Services[1]	+ 1.9	+ 0.8	− 0.5
Income[1]	+ 13.2	+ 18.7	+ 15.5
Current transfers[1]	− 13.5	− 5.7	− 15.1
II Capital transfers[1, 4]	+ 1.0	− 0.2	+ 0.2
III Financial account[1] (Net capital exports: –)	− 63.2	− 36.4	− 60.7
1 Direct investment	− 23.4	+ 5.2	− 23.4
German investment abroad	− 26.3	− 6.3	− 26.8
Foreign investment in Germany	+ 3.0	+ 11.5	+ 3.4
2 Portfolio investment	+ 14.7	− 43.7	− 36.0
German investment abroad	− 21.2	− 3.3	− 38.6
Shares	+ 5.3	− 5.7	+ 5.8
Mutual fund shares	− 3.7	+ 1.7	− 6.3
Debt securities	− 22.8	+ 0.7	− 38.1
Bonds and notes[5]	− 19.6	− 9.4	− 35.5
of which Euro-denominated bonds and notes	− 18.5	− 11.5	− 37.9
Money market instruments	− 3.1	+ 10.0	− 2.6
Foreign investment in Germany	+ 35.9	− 40.4	+ 2.5
Shares	− 6.3	− 5.5	− 8.6
Mutual fund shares	+ 2.0	+ 0.9	− 1.0
Debt securities	+ 40.2	− 35.8	+ 12.2
Bonds and notes[5]	+ 33.5	− 22.1	+ 12.7
of which Public bonds and notes	+ 23.7	+ 5.2	+ 28.9
Money market instruments	+ 6.7	− 13.7	− 0.5
3 Financial derivatives[6]	− 10.4	− 5.1	− 4.0
4 Other investment[7]	− 42.8	+ 7.6	+ 3.6
Monetary financial institutions[8]	− 4.8	− 50.4	+ 232.9
of which short-term	− 6.3	− 34.0	+ 215.5
Enterprises and households	− 31.2	+ 40.9	− 23.3
of which short-term	− 15.7	+ 24.2	− 20.6
General government	− 8.1	− 1.7	− 24.6
of which short-term	− 11.0	− 2.8	− 25.8
Bundesbank	+ 1.3	+ 18.7	− 181.3
5 Change in reserve assets at transaction values (increase: –)[9]	− 1.4	− 0.4	− 1.0
IV Errors and omissions	+ 21.7	− 11.1	+ 19.5

1 Balance. 2 Including supplementary trade items. 3 Special trade according to the official foreign trade statistics (source: Federal Statistical Office). 4 Including the acquisition/disposal of non-produced non-financial assets. 5 Original maturity of more than one year. 6 Securitised and non-securitised options as well as financial futures contracts. 7 Includes financial and trade credits, bank deposits and other assets. 8 Excluding the Bundesbank. 9 Excluding allocation of SDRs and excluding changes due to value adjustments.

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particular (€1 billion), but also money market funds and bond-based funds redeemed their own shares (€½ billion in each case). Foreign funds traded in the German market acquired new resources totalling €6½ billion net in the first quarter of 2012. Domestic non-banks were the main buyers, adding mutual fund shares worth €31½ billion to their portfolios. By contrast, domestic credit institutions and foreign investors disposed of mutual fund shares worth €3 billion and €1 billion net respectively.

Direct investment

Net capital exports through direct investment

As in cross-border portfolio investment, which closed the first quarter of 2012 with net capital exports of €36 billion, the direct investment account likewise recorded capital outflows in the reporting period (€23½ billion). With that, the phase of moderate direct investment inflows seen over the previous three quarters came to an end.

Strong increase in German direct investment abroad

The most recent developments were fuelled above all by buoyant direct investment activities of German enterprises abroad (€27 billion). On the one hand, German parent companies provided their foreign subsidiaries and branches with equity capital (€12½ billion); on the other, they reinvested earnings generated by their non-resident branches (€9 billion). In addition, they supplied funds via intra-group loans (€5½ billion). The bulk of German direct investment in the reporting period was concentrated on European countries, notably the Netherlands (€11½ billion) and Great Britain (€4 billion). China, too, was a major investment country for German enterprises (€4 billion).

Non-resident enterprises trim direct investment in Germany

Non-resident enterprises increased their direct investment stocks in Germany slightly in the first three months of the current year (+€3½ billion). This took the form, almost exclusively, of reinvested earnings at German-based branches of European parent companies.