German balance of payments in 2014

The German economy's current account surplus expanded very strongly in 2014 to reach a new post-war-high of 7½% of GDP. This was driven by a significantly increased surplus in the trade account. The average net surplus from cross-border investment income over the past two years was below the high amounts recorded in 2011 and 2012. Although Germany's net external position continued to rise, the positive effect of this on the investment income sub-account was more than offset by the further decline in the average interest rate and the narrowing yield spread on the assets side.

Following a stagnant outcome in 2013, export sales by German enterprises picked up noticeably again in 2014. Given the relatively subdued level of global economic activity, this can be attributed to regional and product range effects. Countries experiencing comparatively strong economic growth such as the United States, the United Kingdom and China displayed a markedly higher demand for German-made automobile products as well as for pharmaceuticals and, to a degree, machinery and equipment. The trade surplus was additionally boosted by substantial terms-of-trade effects. These resulted during the period under review from the lower cost of imported commodities, especially the plummeting crude oil price towards the end of the year. In real terms, the volume of imported goods increased faster than exports on the back of buoyant domestic economic activity. When making a macroeconomic assessment, it is important to bear in mind that the higher German current account surplus in 2014 was largely generated by exogenous developments in the external setting.

The increase in the current account surplus was accompanied by a marked rise in Germany's financial account surplus, thanks largely to higher net capital exports from direct investment. These outflows were chiefly fuelled by German firms' higher direct investment abroad, whereas foreign enterprises only marginally expanded their presence in Germany. Portfolio investment was heavily influenced in 2014 by the abundant liquidity provided by the Eurosystem and expectations of large-scale asset purchases for monetary policy purposes (quantitative easing). This constellation was reflected by sharply declining yields in Germany, continued high demand from domestic investors for foreign securities, and comparatively weak demand from abroad for German debt securities. In the other investment sub-account, cross-border flows of capital broadly offset one another. In this context, the Bundesbank's TARGET2 claims decreased slightly on balance last year. Cross-border cash transactions were recorded in the balance of payments for the first time; recent estimates make it possible to gauge figures retrospectively for the period since 2002, when euro banknotes and coins were introduced.

Current account

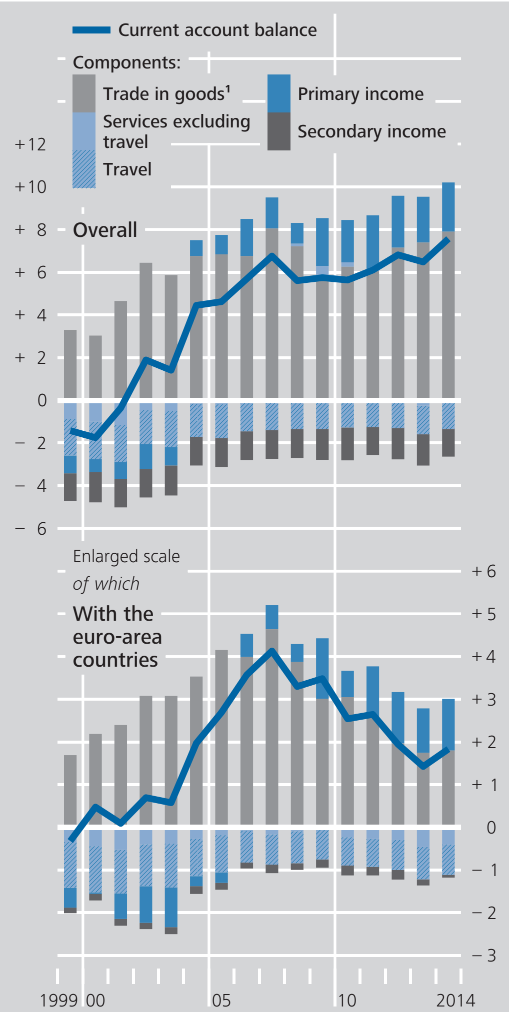
Underlying trends in the current account

Current account surplus rises to 7½% of GDP

In 2014, Germany's current account balance climbed strongly by €37½ billion to almost €220 billion. At 7½% of gross domestic product (GDP), this figure represents a new record post-war high for Germany both in absolute and percentage terms, topping the previous peak of 2012 by ¾ percentage point. Statistically, more than half of this increase in the current account surplus was accounted for by the further marked increase in the trade surplus.

Germany's current account

As a percentage of GDP



1 Special trade according to the official foreign trade statistics, including supplementary trade items, which also contain freight and insurance costs as a deduction from imports.

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According to provisional information, net revenue from cross-border investment income – which has developed into an additional strong current account earner over the past decade – again lifted the overall surplus during the reporting period after having contracted discernibly in 2013. However, the two-year investment income total over 2013 and 2014 fell short of the high figure achieved in 2011 and 2012. The traditionally large deficits on services (including travel) and in the secondary income balance narrowed perceptibly.[1]

EU macroeconomic imbalance procedure tightened

In 2014, the current account surplus again clearly exceeded the stipulated upper threshold of 6% of GDP up to which positive balances are generally deemed unproblematic under the EU macroeconomic imbalances procedure (MIP), after coming close to the defined ceiling in 2013 (6½%). The European Commission considers Germany's persistently high current account surplus, along with the low level of investment spending, to be the main indications of a macroeconomic imbalance in Germany. Having found the economic policy response to be inadequate, the Commission sharpened its overall criticism in its 2015 appraisal, stating that there was a need for intensified monitoring and decisive policy action to address Germany's macroeconomic imbalances (see also the box on page 75).

External environment generating strong expansionary effect

The very steep rise in the current account surplus in 2014 highlights the major impact that substantial changes in the global environment have on Germany's external account. German exports are currently being boosted not so much by the broad dynamics of global economic activity as by regional and product-

1 The Bundesbank updated its balance of payments methodology in July 2014 in line with the updated Balance of Payments and International Investment Position Manual (BPM6) of the International Monetary Fund (IMF). In addition to more detailed breakdowns and the inclusion of transactions that were not previously recorded, this resulted in new sub-account classifications and changes in terminology. See Deutsche Bundesbank, Changes in the methodology and classifications of the balance of payments and the international investment position, Monthly Report, June 2014, pp 57-68.

European Commission steps up the macroeconomic imbalance procedure for Germany

The European Commission has stepped up the macroeconomic imbalance procedure for Germany. On 26 February 2015, the Commission published an assessment[1] stating that there has been no tangible improvement in the trends of imbalances identified previously and that the policy response has been insufficient so far. Germany is now no longer in the second but in the third of the six macroeconomic imbalance procedure categories. The German economy is thus considered to have macroeconomic imbalances which require monitoring and decisive policy action.

In its 2015 in-depth review,[2] the Commission believes that the German economy's current account surplus, which it projects to increase to 8% of gross domestic product in 2015, is still the main indication that macroeconomic imbalances exist in Germany. In addition to the currently substantial terms-of-trade gains, this surplus is thought to be a result of the domestic export industry's strong competitiveness and of high revenues from investment abroad but also to reflect the fact that this has not been offset by increased domestic demand. While private consumption has increased, investment is still considered to be disappointingly low. This is the second point that the Commission identifies as being a key indicator of macroeconomic imbalances. It cites consistently weak investment in machinery and equipment, a loss of momentum in residential investment and insufficient public investment as specific factors dragging on growth.

The Commission believes that Germany's macroeconomic imbalances harbour systemic risks for the euro area. While euro-area partners benefit from Germany's success in trade, the weak domestic investment, falling potential growth and dependence on external conditions pose risks to both Germany and the euro area. At the same time, the Commission acknowledges that Germany's current account surplus in relation to its euro-area partners has fallen to less than a quarter of the total surplus, indicating an on-going rebalancing process in the euro area. The Commission believes that Germany can make a key contribution to reducing imbalances in the euro area by using its considerable total savings overhang for much-needed investment in modernising and developing its infrastructure.

A further reason for the Commission to step up the macroeconomic imbalance procedure is that it believes Germany, overall, has not sufficiently addressed the 2014 country-specific recommendations. Germany has made limited progress in pursuing growth-friendly fiscal policy whilst preserving a sound fiscal position, in reducing disincentives in the labour market (especially with regard to second earners) and in improving competition in the services sector. On the other hand, the Commission acknowledges that Germany has made some progress in keeping the overall costs of transforming the energy sector to a minimum.

1 See European Commission, 2015 European Semester: Assessment of growth challenges, prevention and correction of macroeconomic imbalances, and results of in-depth reviews under Regulation (EU) No 1176/2011.
2 See European Commission, Country Report Germany 2015 Including an In-Depth Review on the prevention and correction of macroeconomic imbalances.

Germany's foreign trade within and outside the euro area

€ billion

Source of unadjusted figures: Federal Statistical Office.
Deutsche Bundesbank

specific demand trends. In tandem with plummeting oil prices, this caused the foreign trade balance to surge and *inter alia* obscured the fact that domestic demand in Germany picked up perceptibly in 2014. This, coupled with a similar surge in German industry's demand for intermediate goods, generated strong real import growth. Indeed, the European Commission itself expects domestic demand to continue to climb both in 2015 and 2016. This is another reason why there is currently no need to implement short-term stimulus measures in Germany. Instead, the emphasis should be on improving the longer-term growth outlook. This should include reviewing whether the prevailing institutional framework has contributed to Germany's aggregate savings overhang and to what extent remedial measures may be required.

No narrowing of trade surplus vis-à-vis euro-area countries in 2014 …

For some years now, the very high overall surpluses recorded in the German trade and current balances have obscured the fact that the surpluses on trade in goods and services with other euro-area countries have narrowed considerably compared with their peak level of 2007. During the reporting period, both balances widened somewhat compared with 2013. However, this is not surprising given that economic output in several of the countries worst hit by the crisis is now improving from a low base level. German enterprises remain well positioned in European markets. The slightly elevated wage and price trend evident in Germany has thus far only resulted in a moderate adjustment of the country's price competitiveness. The adjustment processes usual within a currency union are still ongoing. Nevertheless, the share of the current account balance that is statistically attributable to transactions within the euro area (1¾% of GDP) already no longer signals a major imbalance.

… but gap vis-à-vis non-euro-area countries much wider

By contrast, at 5¾% of GDP, Germany's current account surplus vis-à-vis non-euro-area countries has now reached a sizeable level. The figure has more than doubled compared with 2007. Expanding foreign trade surpluses in the years that followed the great recession were instrumental in building up the high surplus position. In the context of a strongly rebounding global economy, exports played a key role in this build-up between 2010 and 2012. In the past two years, given the comparatively modest pace of growth in the world economy it was primarily the substantial terms-of-trade gains that further boosted the foreign trade balance. The recent depreciation of the euro is unlikely to have had much impact on exports during the period under review. The euro's lower external value, as a factor tending to foster export opportunities to non-euro-area countries, should be viewed *per se* as an upside risk for the foreign trade surplus, not least in the near future.

Goods flows and balance of trade

Higher foreign trade balance again chiefly due to terms-of-trade effects

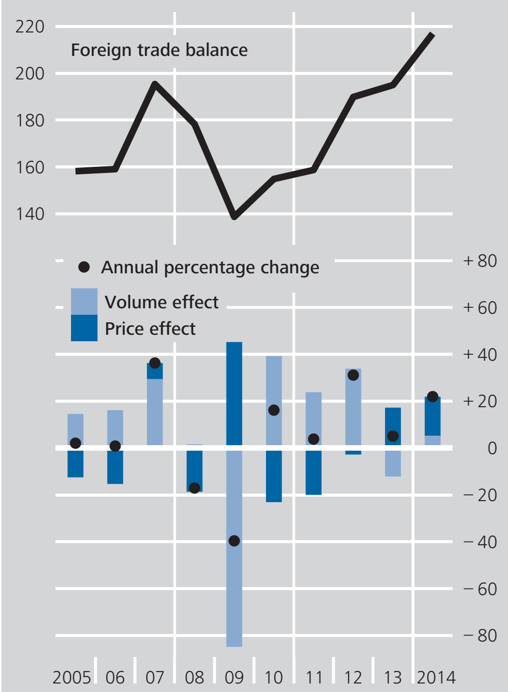
German foreign trade picked up noticeably in 2014. On an annual average, nominal exports of goods were 3¾% up on 2013, when they declined slightly (-¼%). Although goods imports recorded a nominal rise of just 2% following a ¾% drop in 2013, price effects had a strong dampening impact due to the in some cases substantial falls in global commodity prices. In real terms the volume of goods imported by Germany went up by an estimated 4¼%. The upshot was that the foreign trade surplus expanded by €22 billion to reach a new record high of €217 billion. This lies well above the previous peak figure of €195 billion which was reached in 2007. Statistically, more than three-quarters of the increase during the reporting period arose from the marked improvement in the terms of trade, whereas less than one-quarter was generated by the higher net export volume. Terms-of-trade effects therefore played a significant role for a second consecutive year.

Growth in exports to EU states driven mainly by higher sales to UK and central and east European countries

EU member states made a comparatively large contribution to German export growth in 2014, with sales of goods to non-euro-area EU countries recording a particularly sharp increase. Thus exports to the United Kingdom as well as to central and east European EU countries outside the euro area rose by more than one-tenth. Exports to the euro area also rebounded considerably (+2¾%). After two years of declining exports, this reflects the incipient economic recovery in the countries hardest hit by the crisis. In addition, the demand for German-made goods also picked up in France and Italy after slackening in 2013. Exports to the Netherlands went up again during the reporting period. By contrast, the value of goods imported from Germany by other neighbouring countries such as Austria and Belgium once

Price and volume effects on the German foreign trade balance*

€ billion



Source of unadjusted figures: Federal Statistical Office. * Decomposed using the Shapley-Siegel index.
Deutsche Bundesbank

again fell short of the level recorded in 2011, which was the peak year in the current business cycle.

Particularly big rise in exports to USA and China

Exports to countries outside the EU saw a moderate increase in 2014 (1½%). The result was certainly influenced by the fact that exports to Russia contracted by almost one-fifth on account of the perceptible economic downturn in that country and externally imposed sanctions. On the other hand, exports to the United States and China, which along with the United Kingdom[2] are the main partners in German industry's business dealings with non-euro-area countries, increased by one-tenth on average. Furthermore, strong stimuli were imparted by the newly industrialised economies in Asia and the OPEC member countries, while exports to the south and east Asian emerging market

2 These three countries account for more than one-fifth of all German goods exports and for one-third of its exports to countries outside the euro area.

Foreign trade by region

%

Country/ group of countries	Percentage share 2014	Annual percentage change 2012	2013	2014
Exports				
Euro area (18)	36.6	– 3.4	– 1.0	2.8
Other EU countries	21.4	3.3	2.3	10.2
of which				
United Kingdom	7.4	11.8	3.0	11.4
Central and east European EU countries (7)[1]	10.6	0.0	2.0	11.0
Switzerland	4.1	2.2	– 4.1	– 1.4
Russia	2.6	10.6	– 6.0	– 18.1
USA	8.5	17.9	2.7	7.5
Japan	1.5	13.4	– 0.4	– 0.9
Newly industrialised economies in Asia[2]	3.1	4.5	1.8	7.6
China	6.6	2.9	0.2	11.3
South and east Asian emerging market economies[3]	2.2	11.7	– 6.6	0.3
OPEC	3.0	18.3	3.0	9.0
All countries	100.0	3.3	– 0.2	3.7
Imports				
Euro area (18)	38.3	0.0	1.0	2.6
Other EU countries	19.9	– 1.1	3.4	6.5
of which				
United Kingdom	4.6	– 4.3	– 0.7	– 0.5
Central and east European EU countries (7)[1]	12.4	1.3	5.7	10.6
Switzerland	4.3	2.1	1.4	2.6
Russia	4.2	4.6	– 3.6	– 6.9
USA	5.3	5.2	– 4.9	0.0
Japan	2.1	– 7.1	– 11.0	– 2.2
Newly industrialised economies in Asia[2]	2.4	– 6.0	– 3.4	3.4
China	8.7	– 1.3	– 5.1	6.4
South and east Asian emerging market economies[3]	3.3	– 0.5	1.5	6.2
OPEC	1.4	28.5	– 5.8	– 25.1
All countries	100.0	0.4	– 0.9	2.1

1 Bulgaria, Croatia, Czech Republic, Hungary, Lithuania, Poland, Romania. **2** Hong Kong, Singapore, South Korea, Taiwan. **3** India, Indonesia, Malaysia, Philippines, Thailand, Vietnam.
Deutsche Bundesbank

economies remained broadly unchanged in 2014. For the second year in a row, exports to Japan struggled to match the greatly elevated volume achieved in 2012. Similarly, German foreign trade once again received no positive impetus from Switzerland.

Higher export earnings across product range

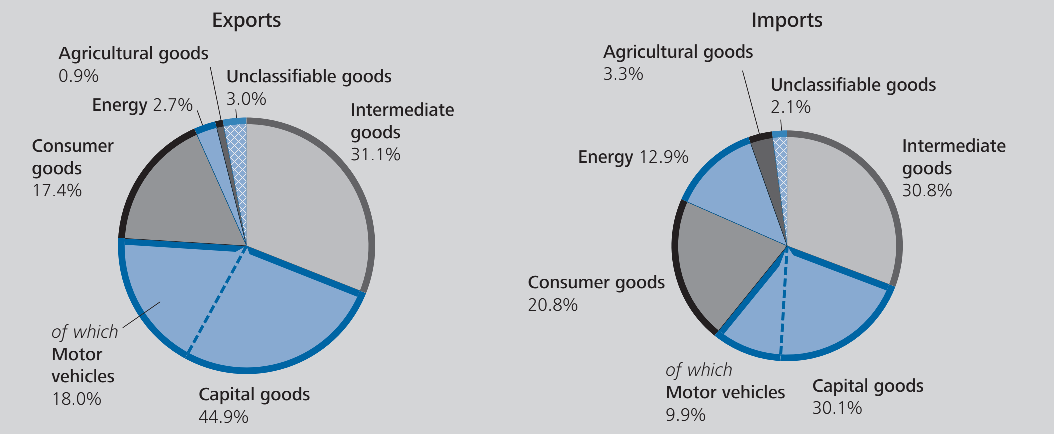
In 2014, export earnings were up on the year in all the major categories of goods. There was an especially pronounced increase in exports of consumer goods, sales of which by German exporters had already risen robustly in previous years. Pharmaceutical products played a key role in this. After dipping in 2013, exports of capital goods likewise jumped by a significant margin, with particularly marked growth in sales of motor vehicles to important markets such as China and the United Kingdom. Exports of motor vehicles to other euro-area countries also expanded for the first time since 2011. This was accompanied by a perceptible increase in sales of computer, electronic and optical products. By contrast, the rise in exports of machinery was below average, although US business grew considerably.

Robust real growth in imports …

The perceptible broad-based expansion in German output was reflected in a pronounced increase in real imports of goods. Imports of consumer goods grew considerably in a buoyant consumer environment, with domestic demand for pharmaceutical products being especially prominent. Given the German economy's close integration into the international division of labour[3], rising output, particularly in the industrial sector, served to push up imports of intermediate goods. After stalling in 2013, imports of motor vehicles recorded very sharp growth in 2014. This was accompanied by a less marked but still discernible increase in imports of machinery; this is consistent with the fact that investment in machinery and equipment during the reporting period was up from its depressed level in 2012 and 2013. Energy imports

3 See Deutsche Bundesbank, The German economy in the international division of labour: a look at value added flows, Monthly Report, October 2014, pp 27-42.

Foreign trade by selected categories of goods in 2014



Source of unadjusted figures: Federal Statistical Office. Deviations from 100% due to rounding.
Deutsche Bundesbank

fell sharply in nominal and also in real terms. One reason for this was the reduced demand for heating fuel on account of the very mild winter weather at the beginning of the year.

… benefited exporters inside and outside the euro area equally

Countries within and outside the euro area benefited similarly from the German economy's upturn in import demand in real terms. The nominally smaller increase in imports from non-euro-area countries was due *inter alia* to the higher share of energy imports attributable to this group of countries. The fall in energy prices clearly affected the trade result with major energy exporters such as Russia and the OPEC member countries, whose deliveries to Germany shrank by 7% and as much as one-quarter respectively in nominal terms. German imports from the United States, the United Kingdom and Japan remained sluggish. By contrast, imports from the newly industrialised Asian countries and the south and east Asian emerging market economies rose considerably following two rather lacklustre years. In 2014, Chinese suppliers likewise largely recouped the losses in sales to the German market they had sustained over the preceding two years. The upturn in industrial activity, spearheaded by car production, boosted imports from central and east European countries in connection with the established component supply chain.

Trade figures in current account larger than foreign trade data for various reasons; …

The foreign trade sub-account does not, however, directly reflect the overall contribution to the current account made by trade in goods. This is because the foreign trade methodology captures goods flows once they physically cross a border and measures their value at Germany's border, whereas trade in goods as recorded in the balance of payments is essentially based on change in ownership.[4] As the supplier's border is uniformly taken as the place of performance for exports and imports alike, goods imports give rise to a valuation difference compared with the foreign trade figures. Statistically, import cif costs[5] accounted for €22 billion of the difference between the figures for trade in goods and foreign trade during the reporting period. These costs have no bearing on the current account balance, however, if transportation is performed by foreign freight carriers, in which case they are recorded as expenses under the services account. In 2014, these amounted to €17 billion.

The difference between the trade in goods and foreign trade figures is also due partly to the

4 See also Deutsche Bundesbank, Change in the methodology and classifications of the balance of payments and the international investment position, Monthly Report, June 2014, pp 57-68.
5 In international trade, the abbreviation "cif" (cost, insurance and freight) stands for the freight clause that includes transport and insurance costs.

… with rising net income from merchanting being of particular economic significance

net merchanting earnings that are generated whenever domestic enterprises buy goods abroad and resell these without importing them to Germany. The volume of such transactions has increased sharply in recent years, with the automotive industry showing a particular preference for this form of international division of labour. In 2014, this generated a net positive contribution of €20½ billion to trade in goods. After factoring in other additions and subtractions such as goods flows related to cross-border commission processing, the 2014 balance from trade in goods shows a surplus of €229½ billion, compared with €207½ billion one year earlier.

Breakdown of invisibles

Overall services deficit somewhat smaller …

The deficit on cross-border services totalled €39 billion in 2014, which was €5½ billion less than in 2013. This improvement was caused mainly by a jump in receipts from services related to the production and distribution of goods, while expenditure on such services rendered by non-residents contracted.

… chiefly due to commercial and enterprise-related trade in services

In recent years, the transport services sub-account has increasingly posted a deficit; in the year under review, this deficit grew by €1 billion to €13 billion. International trade in computer, telecommunications and information services, which have ballooned over the past decade, posted a surplus of €2½ billion in 2014, whereas in the past receipts from and expenditure on such services largely cancelled out. A significantly lower deficit was posted by professional and management consultancy services, which include commercial services that traditionally show a deficit. The negative balance of maintenance and repair services narrowed in 2014 as a combined result of higher revenue and lower expenditure. Such expenditure, which was reported mainly by German car manufacturers – presumably in connection with warranties – fell by more than €2 billion[6] in 2014. Foreign firms spent more on the cross-border licensing of intellectual property than did their German counterparts (€+4½ billion). While one-third of revenue in this sector now comes from emerging market economies and developing countries, up to now German firms have resorted almost exclusively to using intellectual property products registered in industrialised countries. Cross-border research and development services generate a stable surplus for Germany; in 2014, this amounted to +€3½ billion, the bulk of which was again attributable to the United States.

Only moderate rise in foreign travel spending

German residents' expenditure on foreign travel in 2014 amounted to €69½ billion, up by more than 1% on 2013. In keeping with the strong consumer demand, spending on private travel increased further by 1¼%, after already recording marked growth between 2011 and 2013. Conversely, foreign travel for business purposes fell well below the previous year's figure (-2%). The travel sub-account recorded receipts of €32½ billion, up by 5%, while the overall deficit shrank by €1 billion in 2014 to €37 billion.

Investment income balance strongly affected by yield effects

Germany accumulated a surplus of €67 billion from cross-border primary income in 2014. The year-on-year increase of €6½ billion fully offset the decline seen in 2013. Since provisional data are prone to revision, the sharp rise at the current end should not be overinterpreted. That said, one finding that should prove statistically robust is that the surplus for the past two years is significantly smaller than that reported for the previous two-year period. The primary income balance is largely determined by the volume of income flowing to residents from their investments abroad and the amount German debtors transfer to other countries. In recent years the investment income account has made a major positive contribution to the current account balance. This was due in part to the

6 The intertemporal comparison of data up to 2012 is limited, not least with respect to expenditure, as it is virtually impossible to retrospectively calculate this newly defined item in the services account on the basis of the data collected using the old reporting templates. In view of their nature, these services are likely to have been listed up to 2012 under the item "other business services".

Effects on the cross-border investment income balance: asset accumulation, portfolio shifts and changes in yields

The balance of cross-border investment income stood at €65 billion (or 2¼% of GDP) in 2014, making it the second-largest asset item in the German current account after the goods trade surplus. Just ten years ago, investment income and spending were roughly equal. Germany's investment income flows to and from the rest of the world result from the amount and composition of external assets and liabilities as well as the income yields paid on assets and liabilities. The growth in Germany's investment income surplus is primarily thought to be linked to the considerable rise in net external assets. However, an analysis that disaggregates asset classes additionally reveals many different effects which vary in strength across subperiods.

The starting point of the analysis is a breakdown of the change in the investment income balance into accumulation and yield effects. The accumulation effect measures the isolated influence of changes in net external assets (eg through net capital exports associated with current account surpluses, but also through valuation effects) on the investment income balance. Yield effects generally result from the interplay between the fluctuations in income yields on the asset and liability sides of the external assets account. From an analytical perspective, subdivision into a yield level effect and a differential effect is worthwhile. The yield level effect captures the effects of changes in the international yield level, reflecting the precise impact they have on the average rate of interest on German foreign investments. If the average rate of interest on liabilities to non-resident investors does not run parallel to this, this ultimately results in differential effects.

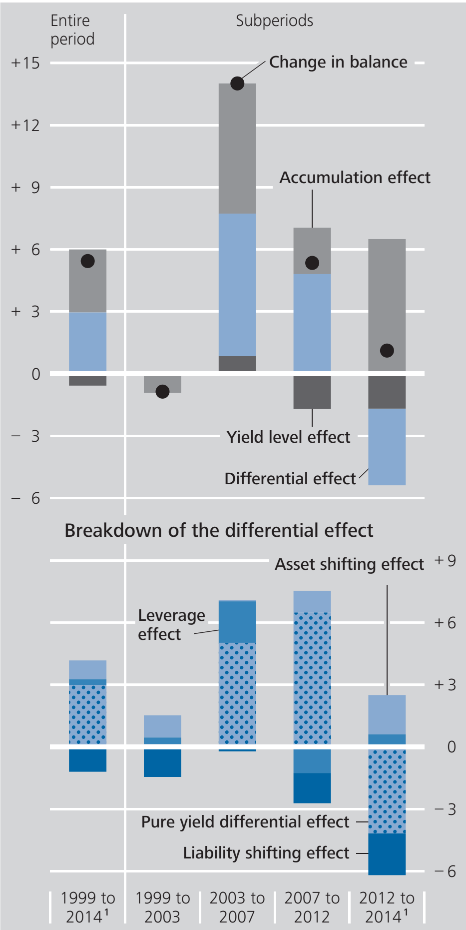
Furthermore, it must be noted that individual asset classes usually generate different yields. Portfolio shifts can therefore change the average yields on assets and liabilities. This phenomenon is accommodated through shift effects for both the yield level and differential effect. The latter does not, however, solely comprise the effects of changes in the yield differential in individual asset classes (pure yield differential effect). A contribution to the aggregated differential effect is also made when – against the background of a differing composition of external assets and liabilities – the yield levels of individual asset classes develop in different ways (leverage effect).

The breakdown of the change in the investment income balance into the effects described above is based on the income and spending flows as well as the asset and liability holdings of 11 yield-bearing asset classes in the German balance of payments and the international investment position.[1] For the entire period from 1999 to 2014,[2] the main finding is that, in mathematical

1 Specifically, the following asset classes are considered: 1) direct investment: a) equity capital, b) loans; 2) securities: a) equities, b) investment fund shares, c) short-term debt securities, d) long-term debt securities; 3) other investment: a) monetary financial institutions, b) enterprises and individuals, c) general government excluding the Bundesbank, d) Bundesbank excluding TARGET2, e) TARGET2. The remaining components of net external assets are not considered in this analysis, as they either do not generate any income as defined in the balance of payments statistics (financial derivatives and cash) or the relevant income data are not available over the entire analysis period (reserve assets). The breakdown in discrete time is implemented using the Shapley-Siegel index. See L Shapley (1953), A value for n-person games, in: H W Kuhn and A W Tucker (eds), Contributions to the Theory of Games, Vol 2, Princeton University, pp 307-317; and I H Siegel (1945), The generalized "ideal" index-number formula, Journal of the American Statistical Association, 40, pp 520-523.
2 For 2014, the period from 2013 Q4 to 2014 Q3 is used provisionally for the investment income, since information on amounts outstanding for the international investment position is currently available until 2014 Q3 only.

Breakdown of the change in the German investment income balance

€ billion, average annual amounts



1 Final figures for the international investment position as at 2014 Q3.
Deutsche Bundesbank

terms, the accumulation of net external assets accounted for just over half of the improvement in the investment income balance. The rest was attributable to yield effects.[3] The swing in the yield differential in favour of German foreign assets had a strong positive impact. Although the decline in the general yield level counteracted the improvement in the investment income balance, the effect of this was relatively minor over the entire period.

In the period between 1999 and 2014, four periods that each display characteristic trends can be identified. The first subperiod (1999 to 2003) covers the final phase and bursting of the dotcom bubble, which resulted in a significant decline in cross-border direct investment, in particular. The global economic slowdown after the turn of the millennium led to persistent economic stagnation in Germany given the structural weaknesses at the time. The second subperiod (2003 to 2007) was – in a global sense – dominated by a fairly strong upturn. During this time, structural reforms were implemented in Germany, culminating in more employment-intensive growth. In addition, domestic enterprises' activities abroad increased considerably in this period. The effects of the financial crisis on the investment income balance are related, on the one hand, to the pronounced cyclical volatility between 2008 and 2010 and, on the other hand, to international investors' changed investment behaviour owing to new assessments of risk/return profiles. The European sovereign debt crisis escalated until mid-2012, after which tensions eased. Against this backdrop, the phase from 2007 to 2012 is separated from the

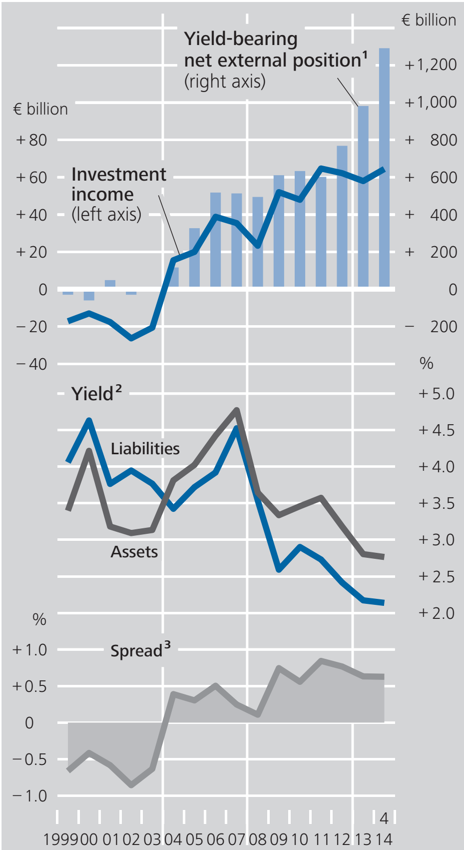
3 In the yield calculation undertaken here, investment income is based on average annual amounts outstanding (ie the arithmetical mean of the outstanding value at the end of the reporting year and at the end of the previous year). The amounts outstanding are valued at the market prices and exchange rates at the end of the reporting period, meaning that changes in amounts outstanding essentially also incorporate valuation effects. The influence of exchange rate fluctuations is likely to be of minor significance for the yield calculation, since income payments are normally made in the currency in which the investment is denominated, and are posted to the investment income balance sheet during the year on an accrual basis. Theoretically speaking, the yield calculation remains undistorted by market price effects under the assumption that market valuations of the investments match expected future income. Since this cannot be assumed in every case and for all periods, investment income flows are based on amounts outstanding adjusted for market price effects in an alternative calculation which, however, only extends back to 2005 for reasons of data availability. In qualitative terms, this procedure does not change the plus or minus sign or the relative significance of the accumulation and yield effects. In quantitative terms, the accumulation effect would have to be somewhat greater and the differential effect slightly smaller in the period from 2007 to 2012.

subsequent years. This delineation also appears necessary from a statistical perspective because the figures for 2013 and 2014 still contain a comparatively high proportion of estimates.

The investment income balance sheet recorded an average annual deficit of €19 billion between 1999 and 2003. This deficit arose because, on average, a higher yield was paid on liabilities to non-residents than German investors received for their practically equivalent holdings of foreign assets. The relatively minor change in the investment income balance of -€3½ billion was almost exclusively attributable to a slightly negative accumulation effect. Yield changes had no notable effect on the balance.

Between 2003 and 2007, German investment income rose on balance by a significant €56 billion to +€35½ billion in 2007. The accumulation effect as well as both yield effects made a positive contribution to this. The biggest contribution, of +€27½ billion, was provided by the improvement in the yield differential. A crucial factor here was that the profitability of both direct investment and of investment fund shares and long-term loans held by German investors improved distinctly compared with those of non-residents in Germany. Also of significance was the fact that the yield level for asset classes in which the German economy as a whole had entered into a net creditor position (such as equity capital for direct investment) tended to rise more sharply than others (+€8 billion). As the climbing German current account surpluses since 2002 were also reflected in constantly growing net external assets (a rise of €502 billion between 2003 and 2007), the accumulation effect played a significant role in the increase in German investment income, adding €25 billion. The slightly higher yield level was of little consequence compared with the other determining factors, contributing +€3½ billion.

Key indicators for the German investment income balance



1 Direct investment, securities and other investment excluding cash, financial derivatives and reserve assets. **2** Yield corresponding to the ratio of investment income to the annual average international investment position. **3** Yield on assets less yield on liabilities. **4** Final figures for international investment position as at 2014 Q3.

Deutsche Bundesbank

German net investment income again increased clearly between 2007 and 2012, rising by €26½ billion to +€62 billion in 2012 despite a temporary slump in 2008. To some extent, there were countervailing contributions from accumulation and yield effects. The accumulation effect made a distinctly positive contribution of +€11 billion. In spite of the larger current account surpluses as against the 2003 to 2007 period, this contribution was no longer as high, since Germany's net external assets did not grow to the same extent as the cumulative financial account balances between 2007 and 2012 owing to valuation effects, other adjustments and changes to statistical conventions.[4] The yield level effect continued to have a clear braking effect on the increase in investment income, reducing the figure by €8½ billion, as the international interest rate level declined considerably following the expansionary monetary policy measures implemented in response to the global recession. A crucial factor here was that all asset classes, but particularly other investment by monetary financial institutions (MFIs), generated distinctly lower income than before.

By contrast, the differential effect boosted Germany's investment income balance after the onset of the crisis (+€24 billion), primarily on account of safe haven flows as part of investors' altered risk perception. The largest item originates from the price effect of safe haven flows, which were expressed in the increase in the pure yield differential (+€32½ billion). This was chiefly attributable to yield changes in the bond market, in which the effective interest rate decreased from 3¾% to 2¼% on the liability side between 2007 and 2012, while the reduction on the asset side was significantly smaller, going from 4¾% down to 4¼%. The yield differential was adversely affected, however, because the interest rate on German net creditor positions, such as other investment by MFIs and investment fund shares, was lower than in the previous period (-€6½ billion).

The significant portfolio shifts after the onset of the crisis had no negative influence on the investment income balance. On the asset side, the items that primarily gained in importance were TARGET2 claims, other investment by public sector entities excluding the Bundesbank, long-term debt securities and direct investment, especially at the expense of other investment by MFIs and of equities. One reason for this can be found in a structural shift away from bank financing resulting, amongst other things, from new capital requirements under Basel III. First and foremost, however, institutional mechanisms within the euro area and the process of combating the crisis ensured that the private sector's share in external assets shifted in favour of public sector entities – particularly the Bundesbank's TARGET2 claims. However, the effect on the total balance of the rise in TARGET2 claims was more than offset in mathematical terms by the reduction in low-interest-bearing asset classes, such as other investment by MFIs, in favour of more profitable ones, such as direct investment and long-term loans.[5]

From 2012 to 2014, the German investment income balance improved only slightly, by €2 billion, according to current figures. Against the background of the German net external position recording clear increases (+€523 billion) owing to valuation effects amongst other factors, the accumulation effect was again considerable in this period (+€13 billion). However, dampening effects were felt from the continued drop in the yield level (-€3½ billion) and the deterioration in the yield differential (-€7½ billion). The latter was primarily attributable to a partial reversal of the crisis-related develop-

4 See also Deutsche Bundesbank, Discrepancy between changes in foreign assets and the cumulative financial account balance: unsuitable indicator of wealth losses, Monthly Report, May 2014, pp 48-50.
5 In the first step, TARGET2 claims are remunerated at the Eurosystem reference rate and generate investment income as defined in the balance of payments, which is recognised as Bundesbank income. This aspect is considered exclusively in this calculation. Since TARGET2 balances even out across all euro-area countries, they do not ultimately generate any monetary income for the Eurosystem as a whole and hence also for the Bundesbank. All of the Eurosystem's monetary income is netted and allocated at the end of the year only. The compensatory amount is recorded in secondary income for statistical purposes.

ment in the bond markets, which was reflected in a negative pure yield differential effect (-€8½ billion). By contrast, the effects of portfolio shifts from assets (+€4 billion) and liabilities (-€4 billion) towards equities and, on the asset side, towards long-term debt securities as well offset each other in terms of the investment income balance.

To explain the increase in the investment income surplus in the past ten years, it is not enough to look solely at the accumulation process for net external assets. The improvement in the yield differential between external assets and liabilities – especially with regard to equity capital for direct investment and long-term debt securities – had the effect of additionally boosting the surplus, at least until 2012. The shifts within German external assets and liabilities after the onset of the financial and sovereign debt crisis offset each other for the most part in terms of their overall effect on the investment income balance. Given the size of Germany's net external assets, cross-border investment income streams can be expected, on balance, to continue making clearly positive contributions to the current account in the coming years.

accumulation of a large pool of net foreign assets. But it also owed much to the improved yield spread, which worked in favour of German external assets, whereas the general decline in the yield level since the start of the financial crisis has had a dampening effect on investment income (see also the box on pages 81 to 85). In 2011 and 2012, the yield spread on the assets side proved particularly high as foreign investment had still been profitable on balance. This contrasted with markedly reduced spending by domestic debtors in the wake of declining interest rates and low risk premiums. Over the past two years, the overall yield on the assets side contracted much more than on the liabilities side, not least because of the easing of tensions in the international financial markets. This meant that, although net external assets were still growing, much less investment income was being generated on balance.

Smaller deficit from secondary income

The secondary income balance, which captures current transfers between Germany and the rest of the world, closed in 2014 with a deficit of €37½ billion. This was €3½ billion less than in 2013. Expenditure for the reporting period went down by 4% to €95 billion. This was preceded, however, by a four-year increase in outward current transfers amounting to a cumulated rise of two-fifths. At €56 billion, private-sector transfers in 2014 remained broadly unchanged[7] compared with the previous year, while public sector transfers declined by just over €4 billion to €39 billion in the wake of smaller transfers to the EU budget. Overall, current transfers received from the rest of the world in 2014 were on a par with the 2013 level.

7 Owing to the changeover to a new system of classification for the balance of payments, private receipts and expenditure are now much larger in the secondary income account. The reason for this balance sheet increase is that the figures now include net premiums (excluding insurance services provided) and payments on claims made by insurers, notably reinsurers.

Financial transactions

Underlying trends in financial transactions

Higher net capital exports

Mirroring the current account surplus, Germany again recorded high net capital exports in 2014. These amounted to €244 billion (compared with €208 billion in 2013). Over 50% of this amount was attributable to portfolio investment. The current low-interest-rate environment was reflected by domestic investors' greater interest in higher-yielding foreign securities. In return, German government bonds, which are considered particularly safe, remained in demand abroad, although their yields have fallen steadily across all maturity segments owing to the generous volumes of liquidity being provided by the Eurosystem and expectations of large-scale purchases of securities for monetary policy purposes (quantitative easing). The impact of direct investment on the financial account was significantly higher in 2014. Over the course of the year, direct investment accounted for around a third of net capital exports. Other investment also recorded capital outflows, but this figure was comparatively small. German financial corporations, in particular, supplied their foreign branches with additional funds. By contrast, the Bundesbank's TARGET2 claims decreased again over the year as a whole. Against the background of increasing uncertainty in the financial markets, however, they have recently been rising again.

Portfolio investment

Lower capital exports from portfolio investment

In portfolio investment, which often clearly reflects developments in the international financial markets, net capital exports amounted to €127½ billion in 2014, compared to €164½ billion in 2013. This decline is mainly attributable to a turnaround in foreign demand for German securities. While foreign investors sold German securities in 2013 on balance, they became purchasers again last year. Foreign investors increased their holdings of German securities by a total of €21½ billion in 2014, primarily through purchases of longer-dated debt securities and equities.

Net capital imports from public bonds, …

Cross-border turnover in German bonds fell further in 2014. This owed much to structural factors such as the decline in the outstanding volume of bank debt securities. This may also be a sign of greater demand from buy-and-hold investors for debt securities than before. Overall, foreign investors purchased €21½ billion worth of German bonds on balance last year. They continued to expand their holdings of public debt securities. Purchases of public-sector bonds exceeded sales by €30 billion last year. This is higher than the 2013 figure, but lower than the net inflows of funds recorded between 2010 and 2012 (€75 billion a year on average). This means that Germany is still considered a safe haven by international investors; however, given that Bund yields are falling, the safe-haven factor seems to have diminished compared with the acute crisis years from 2010 to 2012.

… but domestic private bonds show net capital exports

The trend towards high redemption rates for private-sector bonds seen in previous years continued. Foreign investors' holdings of these long-term debt securities fell by €8½ billion in 2014. A major contributory factor in this is that that the outstanding volume of bank debt securities issued in Germany has been declining for years. The net capital exports therefore probably primarily reflect the shrinking supply offered by domestic issuers.

No significant changes in domestic money market paper

Holdings of domestic money market paper in foreign investors' portfolios fell by €2½ billion in 2014. Net outflows of capital from trade in public-sector issues (€13½ billion) were broadly offset by net inflows of capital from private-sector short-dated debt securities (€11 billion). Non-residents' sales and redemptions of public short-dated bonds were probably driven by the low (and sometimes negative) yields and a dwindling supply.

Countervailing trends in domestic equities and mutual fund shares

Demand for German shares continued to rise in 2014, leading to a net capital import of €8½ billion. In 2014, the German equity market probably benefited from the pick-up in economic activity towards the end of the year and the relatively favourable share price developments. By contrast, foreign investors sold German mutual fund shares on balance in the context of higher cross-border turnover, which resulted in a net capital export of €5½ billion.

Growing net demand for foreign debt securities …

In inward transactions, German investors acquired foreign securities to the tune of €149½ billion net in 2014, which roughly matched the net outflows in 2013 (€143 billion). Long-term debt securities are traditionally the most popular form of investment in this context. Via such purchases, German investors invested €99 billion net abroad. The balance vis-à-vis the rest of the euro area remained largely unchanged. Domestic non-banks, which include insurance and investment firms, appeared to view the outlook for the countries most affected by the crisis somewhat more positively and expanded their stocks of corporate bonds issued by these countries, whereas German banks kept their holdings constant. In the second half of the year, in particular, German investors also bought larger volumes of fixed-income securities from the United States and the United Kingdom. Differences in the monetary policy stance may have been a factor in this. While the Federal Reserve wound down its quantitative easing programme in the fourth quarter, further expansionary monetary policy measures were adopted in the euro area. In the foreign exchange markets, this resulted in exchange rate shifts to the detriment of the euro. In contrast to US securities, bonds and notes issued by Japan, which further accelerated the expansion of the monetary base in 2014, were sold by domestic investors in the reporting year. All in all, net purchases of foreign currency bonds last year amounted to €17 billion (2013: €23½ billion). Bonds denominated in US dollars and Danish krone were in especially high demand.

Major items of the balance of payments

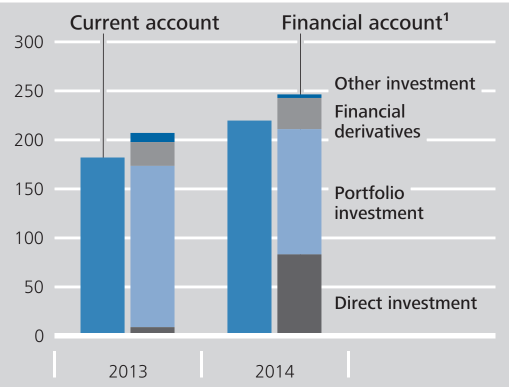
€ billion

Item	2012r	2013r	2014r
I Current account (balance)	+ 187.3	+ 182.0	+ 219.7
1 Goods[1]	+ 196.6	+ 207.6	+ 229.3
Exports (fob)	1,074.1	1,083.5	1,123.8
Imports (fob)	877.5	875.9	894.5
Memo item			
Foreign trade[2]	+ 189.8	+ 195.0	+ 216.9
Exports (fob)	1,095.8	1,093.1	1,133.5
Imports (cif)	905.9	898.2	916.6
2 Services (balance)[3]	− 35.9	− 44.8	− 39.1
of which			
Travel (balance)	− 35.4	− 37.7	− 36.8
3 Primary income (balance)	+ 66.8	+ 60.2	+ 66.9
of which			
Investment income (balance)	+ 62.2	+ 58.0	+ 65.0
4 Secondary income (balance)	− 40.1	− 41.1	− 37.4
II Balance on capital account	+ 1.4	+ 1.1	+ 2.8
III Balance on financial account[4]	+ 157.5	+ 207.9	+ 243.8
1 Direct investment	+ 35.6	+ 9.0	+ 83.2
2 Portfolio investment	+ 54.8	+ 164.5	+ 127.7
3 Financial derivatives[5]	+ 24.4	+ 24.3	+ 31.8
4 Other investment[6]	+ 41.4	+ 9.3	+ 3.7
5 Reserve assets[7]	+ 1.3	+ 0.8	− 2.6
IV Errors and omissions[8]	− 31.3	+ 24.8	+ 21.3

1 Excluding freight and insurance costs of foreign trade. **2** Special trade according to the official foreign trade statistics (source: Federal Statistical Office). **3** Including freight and insurance costs of foreign trade. **4** Increase in net external position: + / decrease in net external position: -. **5** Balance of transactions arising from options and financial futures contracts as well as employee stock options. **6** Includes in particular loans and trade credits as well as currency and deposits. **7** Excluding allocation of special drawing rights and excluding changes due to value adjustments. **8** Statistical errors and omissions, resulting from the difference between the balance on the financial account and the balances on the current and the capital account.
Deutsche Bundesbank

Major items of the German balance of payments

Balances in € billion



1 Excluding transaction-related change in reserve assets; net capital exports: +.

Deutsche Bundesbank

… counterbalanced by falling demand for foreign equities

At €10½ billion, the volume of foreign equities purchased by domestic investors was somewhat smaller in 2014 than in 2013 (€19 billion). Demand eased off noticeably in the second half of the year, in particular. This is likely to have been due to the deterioration of the global economic outlook in late summer and resurging uncertainty in the euro area towards the end of the year about Greece's economic policy course. However, a shift from equities into debt securities may also have played a role in respect of some countries. Portfolio shifts of this kind may have occurred with regard to investment in the USA and the UK where, as mentioned, demand for fixed-income securities rose in the second half of the year. Moreover, German shares significantly outperformed those of many other equity markets last year.

Higher net capital exports from investment fund shares …

In 2014, German investors increased their level of indirect securities investment through foreign investment funds. Net outflows amounted to €38½ billion in the reporting year (€32 billion in 2013). German investors continued to expand their holdings of mutual fund shares from the rest of the euro area, in particular. Capital exports to the rest of the euro area in this securities segment rose by 35% year on year.

… and financial derivatives

Financial derivatives (which are aggregated to form a single item in the balance of payments) showed a rise in net capital exports to €32 billion in 2014. This represents an increase of more than 30% on the previous year. Forward and futures contracts accounted for just under three-quarters of the net capital exports, while the remaining quarter was mainly attributable to options. Financial derivatives were primarily acquired by credit institutions (€21 billion) and financial corporations (€6½ billion). Forward and futures contracts relating to electricity and gas, which are now included in this item following the changeover to the new Balance of Payments Manual (BPM6), accounted for a transaction volume of €2½ billion.

Direct investment

Decline in global direct investment …

Given the fairly long-term nature of direct investment, the tense geopolitical situation led to slightly more subdued investment by enterprises in global terms. Thus the United Nations Conference on Trade and Development (UNCTAD) estimated that global direct investment declined by 8% to less than US$1½ trillion.[8] However, there were marked regional disparities. Developing countries and emerging market economies, which were the most popular investment destinations in previous years, increased their volume of inward investment last year, too. This increase amounted to 4%, bringing their share of global investment inflows to 56%. In the transition countries, by contrast, direct investment was halved to US$45 billion owing, *inter alia*, to the Russia-Ukraine conflict and economic problems in a number of other countries. The group of industrial countries, too, recorded a significant decline of 14% (to around US$700 billion). This affected the United States, in particular, as a foreign enterprise reduced its participating interest in a major American telecommunications company. Given the considerable volume of the transaction, it had an impact on foreign direct investment in the USA as a whole. By

8 See UNCTAD, Global Investment Trends Monitor, No 18, 29 January 2015.

contrast, the EU's volume of inward direct investment went up by 13%.

… but increase in Germany

For Germany, direct investment in 2014 resulted in net capital exports of €83 billion, a nine-fold increase on 2013. On the one hand, this was due to the fact that foreign firms transferred less capital to Germany than at any time since 2004. However, this was due partly to an enterprise-specific development in intragroup credit transactions. Nonetheless, Germany remains an attractive location for foreign investors, which is evident from the strong inflows of foreign equity capital. On the other hand, German enterprises stepped up their investment abroad.

German direct investment abroad returns to high level

At €88½ billion, outbound foreign direct investment by German enterprises significantly exceeded the 2013 figure (€53½ billion). German firms mainly provided their foreign affiliates with more equity capital (€70½ billion), €22 billion of which was used to reinvest earnings generated abroad.[9] In addition, domestic enterprises' cross-border credit transactions resulted in outflows of €18½ billion. For one thing, German proprietors provided their affiliates abroad with loans, in particular. For another, foreign subsidiaries based in Germany provided credit to their parent companies abroad.

Strategic objectives for German direct investment abroad

German enterprises mostly pursue strategic objectives in terms of their direct investment abroad. According to a survey by the German Chambers of Commerce and Industry (DIHK),[10] 83% of enterprises said they focused on expanding production capacity and boosting sales or customer services. A quarter of the enterprises surveyed reported that trade barriers were a further motivating factor for expanding their investment abroad. This applied particu-

9 In 2014, large M&A transactions were also announced, but these were not recorded in the balance of payments in the reporting year.
10 See DIHK Survey, Auslandsinvestitionen in der Industrie, spring 2014.

Financial account

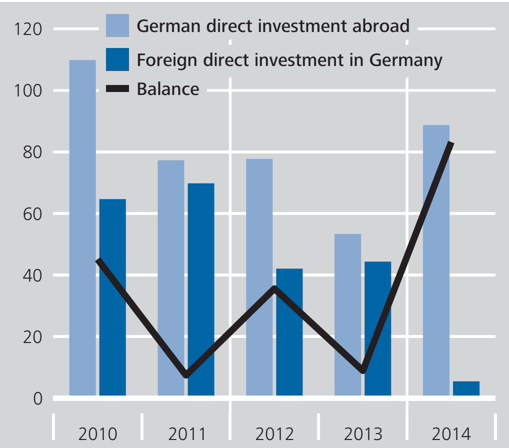
€ billion

Item	2012r	2013r	2014r
Financial account balance[1]	+ 157.5	+ 207.9	+ 243.8
1 Direct investment	+ 35.6	+ 9.0	+ 83.2
Domestic investment abroad[2]	+ 77.7	+ 53.4	+ 88.7
Foreign investment in the reporting country[2]	+ 42.1	+ 44.4	+ 5.5
2 Portfolio investment	+ 54.8	+ 164.5	+ 127.7
Domestic investment in foreign securities[2]	+ 109.7	+ 143.2	+ 149.4
Shares[3]	+ 11.7	+ 19.0	+ 10.6
Investment fund shares[4]	+ 21.7	+ 31.9	+ 38.3
Long-term debt securities[5]	+ 75.9	+ 87.8	+ 99.1
Short-term debt securities[6]	+ 0.5	+ 4.5	+ 1.4
Foreign investment in domestic securities[2]	+ 55.0	− 21.3	+ 21.7
Shares[3]	+ 2.3	+ 5.0	+ 8.3
Investment fund shares	− 3.4	+ 6.1	− 5.6
Long-term debt securities[5]	+ 56.2	− 9.5	+ 21.4
Short-term debt securities[6]	− 0.1	− 22.9	− 2.4
3 Financial derivatives[7]	+ 24.4	+ 24.3	+ 31.8
4 Other investment[8]	+ 41.4	+ 9.3	+ 3.7
Monetary financial institutions[9]	− 117.6	+ 101.6	+ 43.8
Long-term	− 37.7	− 33.8	+ 35.7
Short-term	− 79.9	+ 135.4	+ 8.1
Enterprises and households[10]	− 22.1	+ 18.6	− 18.8
Long-term	+ 0.4	+ 14.7	+ 6.2
Short-term	− 22.5	+ 3.9	− 25.0
General government	+ 80.8	+ 9.0	+ 19.6
Long-term	+ 13.9	+ 5.8	− 1.5
Short-term	+ 67.0	+ 3.2	+ 21.1
Bundesbank	+ 100.2	− 119.9	− 41.0
5 Reserve assets[11]	+ 1.3	+ 0.8	− 2.6

1 Increase in net external position: + / decrease in net external position: -. 2 Increase: +. 3 Including participation certificates. 4 Including reinvestment of earnings. 5 Long-term: original maturity of more than one year or unlimited. 6 Short-term: original maturity of up to one year. 7 Balance of transactions arising from options and financial futures contracts as well as employee stock options. 8 Includes in particular loans and trade credits as well as currency and deposits. 9 Excluding the Bundesbank. 10 Includes the following sectors: financial corporations (excluding monetary financial institutions) as well as non-financial corporations, households and non-profit institutions serving households. 11 Excluding allocation of special drawing rights and excluding changes due to value adjustments.
Deutsche Bundesbank

Direct investment

€ billion



Deutsche Bundesbank

larly to sales markets in South America, Russia or south-east Europe. Cost considerations – first and foremost the potential to lower wage and energy costs – played a role for 21% of the enterprises. According to the study, these cost motives became more important in the context of Germany's current energy and labour market policy.

Europe major destination for German direct investment

The regional distribution of German direct investment largely reflects these motives. In 2014 the lion's share of direct investment, at €71½ billion, was targeted at other EU countries, which are also the main consumers of German products. According to the DIHK study, the EU has replaced China, which had ranked above it as a target for foreign expansion for four years, in the list of enterprises' preferred locations. German firms perceived an improvement in the competitiveness of their EU partner countries, making them a more attractive investment location. Furthermore, German enterprises increased their investment in China and South America in 2014. There was no major new investment in the United States owing to large losses sustained at a number of foreign enterprises, reflected by negative reinvested profits. Holding companies and manufacturing firms, especially in the automotive industry, were the main investors. By contrast, German credit institutions scaled back their foreign investment last year.

Decline in foreign investment in Germany

Non-resident investors only expanded their investment in Germany by a marginal €5½ billion in 2014. In 2013 foreign direct investment in Germany had amounted to €44½ billion. Intragroup credit transactions were responsible for this decline. While foreign enterprises had provided German firms with loans amounting to €37 billion net in 2013, they withdrew €17 billion from Germany last year. The decline was heavily influenced by the transactions made by a single foreign enterprise. This turnaround in cross-border lending was counterbalanced by a relatively sharp rise in equity capital, which led to inflows to Germany of €22½ billion on balance (2013: €7½ billion). This indicates that Germany remains an attractive corporate investment location for foreign investors.

Foreign holding companies active in Germany

Companies from Europe, in particular, reduced their investment in German affiliated enterprises, while investors from North America and Asia expanded their foreign equity investments. The decline in direct investment from the rest of Europe was largely due to the repayment of intra-group loans at a Dutch parent company. Holding companies were very active in terms of expanding equity capital in Germany, whereas foreign investors from the financial sector withdrew capital.

Other investment

Other investment showing net capital exports

Other investment, which comprises loans and trade credits (where these are not allocatable to direct investment) as well as bank deposits and other assets, again showed net capital exports amounting to €3½ billion in 2014. Both non-banks and the banking system recorded limited outflows of funds.

Small capital outflows from non-banks …

Over the year, countervailing transactions by non-banks roughly balanced each other out in net terms (net capital exports of €1 billion). In this context, government transactions resulted in net capital exports (€19½ billion). Government entities increased their short-term foreign bank deposits abroad (€12 billion) while simul-

Recording euro currency in the balance of payments and the international investment position

Up until now, shortcomings in statistical capabilities have prevented cross-border cash transactions and their offsetting entries from being recorded in the balance of payments (and in the international investment position, or IIP). These transactions include cash taken by seasonal and foreign workers to their home countries and capital transactions settled in cash. Cash travel expenditure by German residents and shipments of euro banknotes abroad by the Bundesbank or German credit institutions used to be given special treatment. Although statistical data were available for both these variables, only one accounting entry used to be made, either in the services sub-account or in the "Other investment" item under external assets held by the domestic banking system.[1] A matching offsetting entry on the liabilities side of the Bundesbank's balance sheet (to depict the corresponding outflows of banknotes) was not recorded because these outflows would have provided a distorted picture of the overall impact of aggregate cross-border cash transactions over a longer-term horizon. Instead, they were recorded under the "Net errors and omissions" item.

However, cash outflows attributable to travel and shipments of euro banknotes have been exceptionally strong since the introduction of the euro, with an aggregate of €357½ billion, or just over 70% of the Bundesbank's total net issuance, having since migrated abroad. The cumulative net effect of travel-related cross-border cash transactions is estimated at €201 billion. On top of that, euro banknote shipments have amounted to a cumulative €156 billion since January 2002. The bulk of this figure – just under 75% – is likely to have made its way directly to countries outside the European monetary union, while just over a quarter ended up in other euro-area countries.

The scale and persistence of cash outflows were thus one of the factors behind the systemically positive "errors and omissions" which have been evident hitherto in Germany's balance of payments. These amounted to an aggregate €247½ billion (prior to the recording of euro currency) between January 2002 and year-end 2014.

There are several reasons why the statistical records are now being adapted. The primary objective is to enhance the comparability of the statistical results provided by the different macrostatistical accounts at both the national and international level. As a case in point, Germany's financial accounts already take account of these transactions, as do some of the balance of payments statistics recorded by other euro-area countries, either because it was an ECB requirement or because it appeared worthwhile from a national perspective. Another contributory factor from a German vantage point is the fact that the systematically positive "errors and omissions" were making it increasingly difficult to interpret the statistical output. Additionally, it became increasingly clear in the meantime that the above sources of information could be used to implement a process that was suited to producing statistical data and which was also capable of painting a robust picture of foreign demand for euro currency[2] over a longer-term horizon, too.[3]

1 Cash (and aggregate) travel expenditure abroad by residents is captured for both the rest of the euro area and for countries outside the European monetary union (EMU) by a household survey which the Bundesbank conducts as part of its balance of payments statistics. Furthermore, there are statistical sources that record shipments of euro banknotes by domestic credit institutions or by the Bundesbank to foreign banks. See also Deutsche Bundesbank, Recording cross-border cash transactions in the balance of payments, Monthly Report, March 2005, p 37.
2 Total cash outflows would comprise both banknotes and coins. However, foreign demand for German-issued euro coins cannot be captured statistically, and its value is negligible relative to that of the banknotes in circulation. Hence, any external liabilities the German government may have in its capacity as an issuer of euro coins are not recorded as a separate item.
3 See also Deutsche Bundesbank, Foreign demand for euro banknotes issued in Germany, Monthly Report, January 2011, pp 29-41. It should be noted, by way of explanation, that the term "foreign demand" means the net issues which have migrated abroad; these issues are not, however, necessarily still in circulation abroad because other euro-area central banks may have taken them out of circulation in the meantime.

Euro currency in the balance of payments and the international investment position

€ billion

1 Includes external liabilities resulting from cash issuance.
Deutsche Bundesbank

The starting point for estimating cross-border cash transactions is the aforementioned set of statistics on travel and banknote shipments. The travel survey conducted on the Bundesbank's behalf also provides data on cash expenditure abroad by German business and holiday travellers in euro currency. By applying the share of cash transactions observed for residents (which can be extracted from these data) to German travel receipts as well, it is possible to estimate a net outflow of cash from the travel account. A figure for net banknote shipments, meanwhile, can be obtained directly from the Bundesbank's surveys. Both components amount, on aggregate, to a net outflow of cash, which is captured for the respective reporting period in the balance of payments.[4] By adding up these flows over time, it is possible to calculate the total value of euro currency that has migrated abroad, on balance, since the beginning of 2002. This is the figure of €357½ billion mentioned earlier in this box, which is recorded as additional external liabilities of the Bundesbank in the IIP.[5]

The statistical recording of cross-border cash transactions is also closely related to the treatment of the items concerning banknotes in circulation in the Bundesbank's balance sheet, which takes account of the particular features of the European monetary union in terms of the issuance of banknotes within the Eurosystem.[6]

A distinction is made in the balance sheet between the banknotes in circulation[7] – as per the banknote allocation key – and the liabilities resulting from the distribution of the euro banknotes in circulation within the Eurosystem.[8] Hence, the external statistics for Germany need to record the following items.

– In Germany, the (estimated) volume of banknotes in circulation domestically is lower than the volume of banknotes in circulation as per the allocation key (€240½ billion).[9] At year-end 2014, the difference thus represents foreign demand for banknotes issued in Germany (€89½ billion), which the Bundesbank

4 Specifically, it is captured under "Other investment" liabilities of the Bundesbank, in the currency and deposits item.
5 This item was first recognised in the IIP at the end of March 2015, when the statistical data as at the end of the fourth quarter of 2014 were published.
6 As a general rule, banknotes represent a liability for the central bank that issues them. In the European monetary union, euro banknotes are brought into circulation by the Eurosystem, that is, jointly by the ECB and the national central banks. The resulting liabilities are apportioned to the ECB and the national central banks of the Eurosystem in line with the banknote allocation key.
7 The national liabilities resulting from the banknotes in circulation are calculated for each national central bank by multiplying the banknote allocation key by the total circulation in the euro area. The banknotes in circulation are a variable that is defined by law but is nonetheless designed to reflect realistic economic circumstances.
8 Euro-area countries whose actual net issuance is lower than the volume in circulation as per the allocation key carry a corresponding item on the assets side of their balance sheet. By definition, the offsetting items of all the euro-area countries (including the ECB) balance each other out on aggregate.
9 Domestic circulation is estimated as the difference between net banknote issuance by the Bundesbank and foreign demand calculated as outlined above.

carries in its balance sheet as external liabilities from banknote issuance.

– Overissuance of banknotes: This is calculated as the actual German issuance of banknotes (€508½ billion at year-end 2014), less banknote issuance as per the allocation key. Calculated thus, overissuance amounted to €268 billion. This figure is recognised in the external statistics as external liabilities from deposits by other national central banks with the Bundesbank.

All in all, the aforementioned foreign demand for German banknote issuance at year-end 2014 therefore amounted to €357½ billion (2013: €329 billion). A net capital import of €28 billion is recognised in the balance of payments to reflect the year-on-year increase recorded in 2014.

On the whole, it can be said that incorporating cross-border cash transactions into the statistics has a major impact on the balance of payments and on Germany's external liabilities. It results in additional net capital imports being captured, reduces "errors and omissions" and boosts the analytical value of the balance of payments, besides significantly shrinking Germany's net external position.

There is no doubt that recording cross-border cash transactions in the statistics improves the consistency and international comparability of external statistics. That being said, it is also evident that external statistics are being stretched to their limits in the context of the European monetary union. Economically, the liabilities arising from banknote issuance ought to be allocated to the Eurosystem as a whole; in actual fact, they are apportioned among the individual euro-area countries according to uniform accounting rules, which statisticians are now looking to replicate as closely as possible.

taneously reducing, in particular, their short-term liabilities to foreign creditors (€6 billion). Moreover, the outflows of funds from the cross-sectoral item "other equity" (€6 billion) are mainly attributable to government transactions; this position contains the German government's capital increase in the European Stability Mechanism (ESM). By contrast, transactions by enterprises and households resulted in capital inflows of €19 billion. On the one hand, they reduced their balances with foreign banks (€11½ billion). The reduction in short-term deposits, notably by non-financial corporations, was partly counterbalanced by a smaller expansion in long-term deposits by other financial corporations, in particular. On the other hand, firms and households reduced their long-term loans abroad (€6 billion).

… and the banking system

In the banking system as a whole, the net outflow of funds amounted to €3 billion. Unsecuritised foreign operations of German credit institutions led to significant net capital exports of €44 billion. For the first time since the collapse of Lehman Brothers in 2008, they especially expanded their interbank loans to the rest of the world (€84 billion). However, this did not involve an increase in loans to other banks, but rather the provision of funds to their own foreign affiliates in financial centres. Conversely, higher deposits from non-residents at German institutions resulted in an inflow of funds to the banking system (€32½ billion). The capital outflows from credit institutions contrasted with inflows resulting from the decline in the Bundesbank's external position (€41 billion). This was chiefly due to a reduction in claims in the large-value payment system TARGET2 (€49½ billion). This position had already recorded a significant decrease in 2013 (€145½ billion); before this, it had risen for six consecutive years, mainly as a result of the crisis. The change in the TARGET2 position last year reflected the fact that the markets considered the situation in most of the countries strongly affected by the crisis to have improved further;

these countries have evidently become more attractive in the context of investors' increased search for yield.

The Bundesbank's external liabilities also decreased, resulting in a net capital outflow (€9 billion). This was chiefly due to a large withdrawal of deposits from accounts held at the Bundesbank by a non-euro-area central bank. However, this contrasted with inflows of €28 billion arising from cross-border transactions involving euro banknotes. Owing to a lack of reliable data sources, these transactions were not previously recorded in the balance of payments; more recent estimates now make it possible for figures to be recorded retroactively for the period since the introduction of euro banknotes and coins in 2002.[11]

Reserve assets

Transaction-related changes in the reserve assets are shown as a separate item in the balance of payments. In 2014, they fell by €2½ billion owing to a decrease in the reserve position with the IMF and in the foreign reserves.

Transactions cause decline in reserve assets

The international reserve holdings were also influenced by balance sheet adjustments which, in line with internationally agreed accounting standards, are not recognised in the balance of payments. The end-of-year revaluation of the reserve assets at market prices resulted in a rise of €17½ billion in 2014, primarily as the result of valuation gains arising from the appreciation of the US dollar. These were reflected not only by exchange rate-related gains in the foreign reserves, but also by a clear upward valuation of the gold holdings. All in all, Germany's reserve assets rose by €15 billion in balance sheet terms in 2014; at the cut-off date of 31 December 2014, they amounted to €158½ billion.

However, balance-sheet adjustments had a positive impact on reserve assets

11 See box on pp 91-93.