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We mourn the death of the following members of our staff

Karl-Wilhelm Rosendahl	18 March 2012
Rico Backhauss	18 March 2012
Dr Thomas August Vogel	23 May 2012
Gebhard Greimel	26 May 2012
Andreas Beuchert	5 July 2012
Adam Thomas Gussmann	25 July 2012
Franz Griesser	8 August 2012
Wolfgang Germann	25 August 2012
Wolfgang Scherz	3 September 2012
Klaus Heinz August Wenzel	30 October 2012
Andrea Ingeborg Brust	31 October 2012
Renate Schmitt	10 November 2012
Hartmut Ziesse	27 November 2012

We also remember the retired staff members
of the bank who died in 2012.

We will honour their memory.

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Abbreviations and symbols

p Provisional
r Revised
e Estimated
pe Partly estimated
… Figure available at a later date
. Figure unknown, not to be published or not meaningful
0 Less than 0.5 but more than nil
– Nil

Discrepancies in the totals are due to rounding.

Foreword by the President of the Deutsche Bundesbank

Foreword

The past year – which marked the fifth year of the financial crisis and the third year of the sovereign debt crisis – posed a renewed challenge both to European economic and monetary union and to the Deutsche Bundesbank and its staff. In its practical work as in its public pronouncements, the Bundesbank steadfastly sought to ensure that the measures taken by policymakers and central banks remain consistent with the objective of safeguarding and strengthening the euro area as a stability union.

Given that the sovereign debt crisis is essentially a crisis of confidence, it can only be overcome by lastingly regaining the necessary confidence both in the soundness of public finances and in the single currency. Considerable efforts still need to be made to achieve this, not only at the level of the member states but also in terms of the overall regulatory framework of European economic and monetary union. Under no circumstances should the easing of tensions in the financial markets be taken as a cue to relax the necessary reform efforts.

On the one hand, the trouble-stricken member states need to put their banking systems in order and consolidate both their public finances and the high debt levels in the private sector. At the same time, they need to regain lost competitiveness.

On the other hand, the framework of monetary union needs to be enhanced with a view to eliminating the weaknesses revealed by the crisis. The task of permanently ensuring the structural soundness of European economic and monetary union notably necessitates restoring a proper and harmonious balance between control and liability, ie between sovereign decision-making and bearing due responsibility for the consequences of such decisions. This applies not only between the European and national level but also within the financial system.

From the outset of the crisis, the central banks of the Eurosystem, ie the ECB and the national central banks of the member states, have played a significant role in seeking to contain it. However, the Bundesbank takes a critical view of some of the measures taken as they severely blur the line of responsibility between monetary policy and fiscal policy. Central banks cannot rectify the root causes of the crisis. Rather, the primary duty of European monetary policymakers, as hitherto, is to maintain price stability. This is an important economic and also a profoundly social task. Nothing, not even the crisis management measures, must cast any doubt on central banks' determination to fulfil this primary duty.

The crisis in the euro area was not the only negative factor that caused the global economy to expand only moderately in 2012. Among other things, the significant rise in crude oil prices last winter also had a dampening effect. In the advanced economic areas real gross domestic product (GDP) stagnated or showed only modest growth, while the emerging market economies saw only sub-par expansion by historical standards. Global economic momentum can be expected to improve again in the current year, though without yet generating a dynamic upswing.

Against the backdrop of the sluggishly expanding global economy, German economic growth likewise lost steam in 2012, which was particularly reflected by a decline in industrial output. Exports increased again, albeit less dynamically than before. On the labour market, however, employment continued to grow while registered unemployment diminished further. The German economy's underlying dynamics remain strong, and cyclical momentum may be expected to pick up as the year progresses.

A key prerequisite for continuous stable and strong growth is achieving greater resilience throughout the financial system. Some progress was made in this area last year.

At the international level, the reform of the regulatory framework for the international financial markets initiated by the G20 countries made further headway. While some conceptual work still needs to be done regarding the treatment of international systemically important non-banks and the shadow banking system, the new capital rules and the OTC derivatives reforms are gradually being implemented. Additionally, the Financial Stability Board (FSB), which coordinates the work on the regulatory framework, was institutionalised at the beginning of 2013; it now has a legal personality of its own as well as greater financial autonomy thanks to an agreement with the Bank for International Settlements.

The Bundesbank is actively involved in the ongoing joint elaboration of regulatory and prudential supervisory standards, especially within the Basel Committee on Banking Supervision and the European Banking Authority (EBA). A key milestone in this respect was the revision of the Basel Core Principles for Effective Banking Supervision. Practical microprudential supervision has now rightly been refocused more strongly on systemically important banks. In addition, systemically important banks were called upon to develop recovery and resolution plans.

Furthermore, the International Monetary Fund's financial resources were increased in 2012 against the backdrop of the continued tension in the financial and monetary system. A total of 38 member countries or their central banks pledged temporary bilateral lines of credit to the Fund; the Bundesbank extended a bilateral credit line of €41.5 billion so as to ensure that the IMF can adequately perform the role defined in its mandate.

The most far-reaching adjustment to the financial architecture, however, is the project to set up a European banking union that was agreed in 2012. This is to comprise a single supervisory mechanism (SSM) operating on the basis of harmonised rules and stringent standards. However, a banking union also necessitates a recovery and resolution mechanism. If properly designed, the banking union will strengthen financial stability in the euro area. It will close a vulnerable gap in monetary union and thus help to safeguard its function as a stability union. The Bundesbank therefore expressly supports the banking union project and will continue to provide conceptual and staffing support in establishing an effective single supervisory mechanism. But setting up a banking union is a large-scale institutional project and a highly complex undertaking. Hence the timeframe and the due diligence exercised in implementing the project need to be commensurate with the complexity of the task.

The decision taken by the EU finance ministers in December 2012 mandates the ECB, in cooperation with the national supervisory authorities, to set up a single supervisory mechanism that will begin its work twelve months after the relevant regulation comes into force. The specific structure chosen for the SSM is designed to obviate any changes to the EU treaties. This does, however, give rise to complicated decision-making processes. The creation of the mediation panel alongside the actual Supervisory Board blurs the lines of responsibility, as it does not make it clear that the Governing Council of the ECB continues to have the final say on prudential supervisory matters. The associated danger of conflicts of interest with monetary policy decisions must now be curbed as comprehensively as possible in everyday practice.

Over and above the measures mentioned above, the establishment of an ongoing macroprudential oversight function is another key element in strengthening the stability of the financial system. In Germany, the Act to

Strengthen German Financial Supervision (Financial Stability Act) – *(Gesetz zur Stärkung der Finanzaufsicht,* or *Finanzstabilitätsgesetz)* entered into force on 1 January 2013. This Act establishes the legal basis for macroprudential oversight in Germany and assigns important tasks to the Bundesbank. It will be responsible for analysing issues that are key to financial stability, identifying dangers, proposing warnings and recommendations, and assessing their implementation. The new German Financial Stability Committee *(Ausschuss für Finanzstabilität),* whose members are drawn from the Federal Finance Ministry, the Federal Financial Supervisory Authority (BaFin) and the Bundesbank, will begin its work during the current year. The Committee's task is to strengthen cooperation in the field of financial stability and, in particular, to issue warnings and recommendations should financial stability be at risk.

A stable currency that enjoys the confidence of the general public must also pass the test of day-to-day use. Two more of the Bundesbank's core business areas are therefore dedicated to ensuring dependable cash and cashless payment operations.

Cash remains the most commonly used payment instrument in Germany. This was the finding of the Bundesbank's second study on "Payment Behaviour in Germany", published in October 2012. To ensure that cash continues to have the highest possible protection against counterfeiting, the Eurosystem continued its work in 2012 on the new series of euro banknotes with enhanced security features. The introduction of the €5 banknote will begin on 2 May 2013 followed, in ascending order, by the remaining denominations over the coming years.

In the core business area of cashless payments, the Eurosystem TARGET2-Securities (T2S) project made significant headway during the year under review. The Bundesbank, as one of the central banks that developed this system, played a key role in this regard. T2S is designed to be a single European settlement platform for securities transactions. By the end of June 2012, virtually all the central securities depositories (CSDs) in the euro area as well as a further five CSDs from non-euro-area countries had signed the T2S Framework Agreement with the Eurosystem and thus undertaken to participate in T2S. Having established this sound contractual foundation, the focus is now on successfully putting T2S into practice.

T2S is not the only project that is making major strides: the Single Euro Payments Area (SEPA) is also becoming a reality. The SEPA Regulation came into force on 31 March 2012. Uniform standards and rules for euro-denominated domestic and cross-border credit transfers and direct debits are to replace the national procedures from 1 February 2014. At present, users in Germany are taking their time to migrate to the SEPA Credit Transfer and Direct Debit Schemes. Bearing this in mind, all the parties involved in payment transactions still need to make considerable efforts if the migration is to be successfully concluded within the legally prescribed timeframe.

A vibrant stability culture within a monetary union not only calls for appropriate action by policymakers and central banks – it also needs to be understood by the public at large and firmly anchored in their consciousness. That is why the Bundesbank has defined economic education as another of its strategic objectives. The aim is to inform the general public about fundamental monetary policy matters and provide background information on the ongoing financial and sovereign debt crisis.

The Bundesbank's principled endeavours across a wide range of fields aimed at safeguarding the stability of the single currency would not be possible without the intense dedication and motivation of its employees. I would therefore like to take this opportunity to thank all members of staff, both on behalf of the Executive Board and also personally, for their input in

2012. Without them, the Bundesbank would not have been able to cope as it did with the challenges it faced last year. My thanks also go to the staff representation committees for their invariably constructive cooperation.

Frankfurt am Main, March 2013

Dr Jens Weidmann
President of the Deutsche Bundesbank

Monetary policy and economic developments

Despite favourable signals at the beginning of 2012, growth in the global economy remained muted as the year progressed. This owed something to developments in the euro area, which escalated dramatically on several occasions and remained in the focus of public attention throughout the year, as well as their spillover effects on other countries. Global economic activity looks set to improve slightly this year as the retarding effects in the advanced economies ease and momentum gradually builds up in the emerging market economies.

Developments in the capital and foreign exchange markets during the past year were likewise shaped by the sovereign debt crisis in the euro area and the monetary policy initiatives taken by the major central banks in a subdued economic environment.

Against the backdrop of the deteriorating economic outlook, the Governing Council of the ECB decided at the beginning of July 2012 to lower each of its three key interest rates by ¼ percentage point. Following these cuts, the main refinancing rate is now at the record low of 0.75% while the rate for using the deposit facility has dropped to 0%. Additionally, the Governing Council agreed further non-standard monetary policy measures, which notably included the launch of a new outright monetary transactions (OMT) programme for purchasing euro-area government bonds on the secondary markets. Under this programme, unlimited quantities of government bonds of a euro-area member state can be purchased for an unlimited time, but subject to the requirement that this member state is undergoing an adjustment programme and fully complies with the associated conditionality. To date, no government bonds have been purchased under this programme.

In Germany, too, macroeconomic momentum weakened in 2012. Real gross domestic product (GDP) rose by only a moderate 0.7% in the reporting period, after expanding very strongly by 4¼% and 3% in 2010 and 2011 respectively. Consequently, actual output trailed potential output growth, which is currently estimated at 1¼%. Nevertheless, overall economic activity has remained within the corridor of normal capacity utilisation, and enterprises largely reported a positive or at least satisfactory business situation. The rise in consumer prices, which continued to be chiefly driven by energy and food, tailed off somewhat to 2.0% according to the national Consumer Price Index (CPI) and 2.1% according to the Harmonised Index of Consumer Prices (HICP).

The economic slowdown did not impact on Germany's public finances, however, since their key component – wage and labour market developments – remained stable on an annual average. The general government budget recorded a small surplus of 0.2% of GDP in 2012, with a still marked deficit at government level being masked by a surplus run up by the social security funds.

I International setting

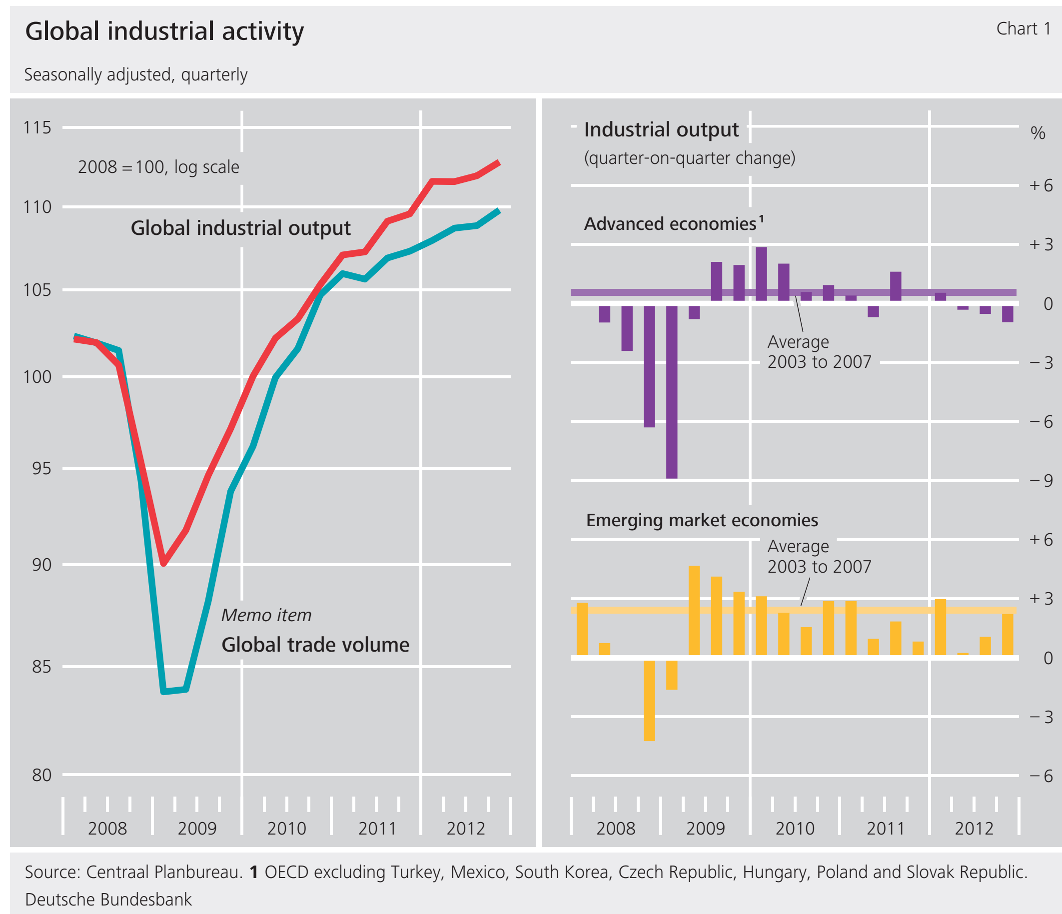
1 World economy lacking momentum

Specific problems dampen growth

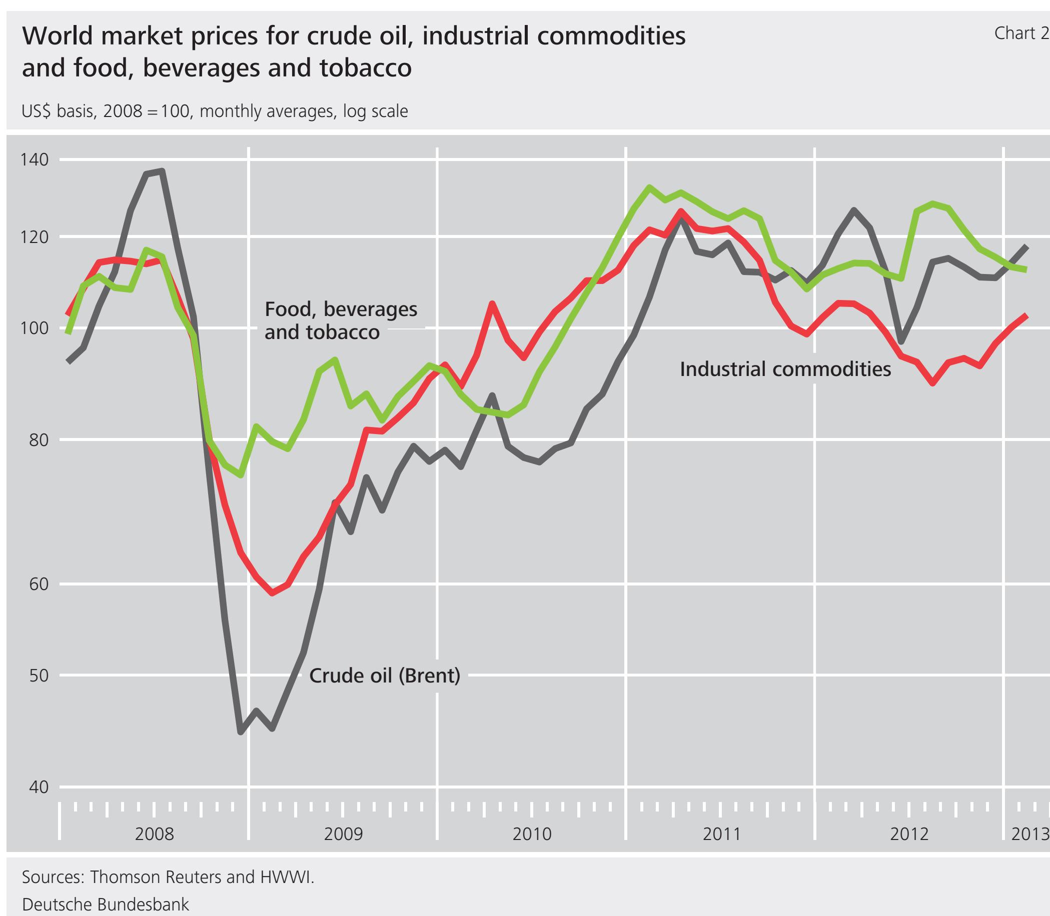
Despite initially favourable signals at the start of 2012, global economic expansion remained subdued for the rest of the year. This was probably partly attributable to developments in the euro area, which assumed crisis-like proportions on a number of occasions and were in the focus of public interest throughout the year, as well as to spillover effects into other countries. The economies of the United Kingdom and Japan were likewise unable to escape recessionary tendencies, though country-specific problems also played a major part. One important – and global – growth-inhibiting factor was the renewed considerable increase in crude oil prices in the winter of 2012. Notwithstanding the global economic slowdown, the US dollar price of Brent on an annual average was even slightly higher than its 2011 record level. In contrast, the US economy remained on its moderate growth path despite the uncertainties caused by intense debate about public finances. Retarding effects stemming from fiscal policy were counteracted, *inter alia,* by a new upswing in housing construction. The pace of economic activity in the emerging market economies (EMEs) proved to be remarkably low by historical standards. After a phase of rapid expansion which – following the global economic crisis – was driven by normalisation and catching-up processes as well as by economic policy stimuli, not only was there a cyclical slowdown: growth in several EMEs also appears to have reached its structural limits.

Slight cyclical improvement expected this year

Given that the retarding effects in the advanced economies are slowly receding and the EMEs' intrinsic momentum is gradually picking up,



Source: Centraal Planbureau. **1** OECD excluding Turkey, Mexico, South Korea, Czech Republic, Hungary, Poland and Slovak Republic.
Deutsche Bundesbank



World market prices for crude oil, industrial commodities and food, beverages and tobacco

US$ basis, 2008 = 100, monthly averages, log scale

Sources: Thomson Reuters and HWWI.
Deutsche Bundesbank

global economic activity is expected to improve slightly this year. In its latest forecast from January, the IMF estimates 3½% real GDP growth for the world. This would put the growth rate ¼ percentage point higher than in 2012.

Pronounced slowdown in global industry and world trade

Last year's economic slowdown was particularly pronounced in the manufacturing sector, which is usually subject to sharper cyclical swings than the economy as a whole. In the winter months of 2012, global industrial output at first expanded quite briskly, although this was probably due to temporary factors such as the recovery following the floods in Thailand in the autumn of 2011; thus the impetus soon weakened again. On average for the year, global industrial output rose by only 3½%, which was 1¾ percentage points less than the mean growth rate posted in the 2003-07 expansionary phase. The EMEs saw their output increase quite substantially (+6%), while production in the industrial countries hardly rose at all (+½%); however, the extent to which the expansion rate lagged behind its previous trend in the EMEs was markedly greater. This is further proof that the slowdown in growth in that group of countries cannot be explained solely by weak demand from the advanced economies, and from the euro area in particular. At the end of 2012, based on the Asian EMEs, signs were increasing, however, that the global manufacturing industry was gradually gaining momentum. A faster pace of growth in this sector is likely to lead to somewhat more robust expansion in the volume of world trade in goods as well, which grew by only 2¼% in the reporting year.

Diverging price developments on the international commodities markets

Industrial commodity prices again proved to be a barometer of global economic conditions. The general weakness in demand caused the HWWI index for industrial countries in US dollars to slump by 15¾% on average for the reporting year. Similarly, a marked recovery got underway at the turn of the year 2012-13 in response to the more favourable assessment of

Macroeconomic benchmark figures of selected economies

Table 1

Countries or economic areas	Real GDP		Consumer prices[1]		Current account balance		Unemployment rate[2]	
	2011	2012	2011	2012	2011	2012pe	2011	2012pe
	Annual percentage change				As a percentage of GDP		As a percentage	
Euro area	1.4	– 0.6	2.7	2.5	0.1	1.2	10.2	11.4
United Kingdom	0.9	0.0	4.5	2.8	– 1.4	[3] – 3.3	8.0	[3] 8.3
United States	1.8	2.2	3.2	2.1	– 3.1	[3] – 3.1	8.9	8.1
Japan	– 0.6	1.9	– 0.3	0.0	2.0	[3] 1.6	4.6	4.4
China	9.3	7.8	5.4	2.6	2.8	2.6	.	.
India	7.5	4.1	9.6	9.7	– 3.4	[3] – 3.8	.	.
Brazil	2.7	0.9	6.6	5.4	– 2.1	– 2.4	6.0	5.5
Russia	4.3	3.4	8.4	5.1	5.2	4.1	6.6	5.7

Sources: IMF, ECB, Eurostat, national statistics. **1** HICP for the euro area and the United Kingdom. **2** Unemployment rate based on national definition; for the euro area and the United Kingdom standardised rate. **3** IMF forecasts (World Economic Outlook, October 2012).

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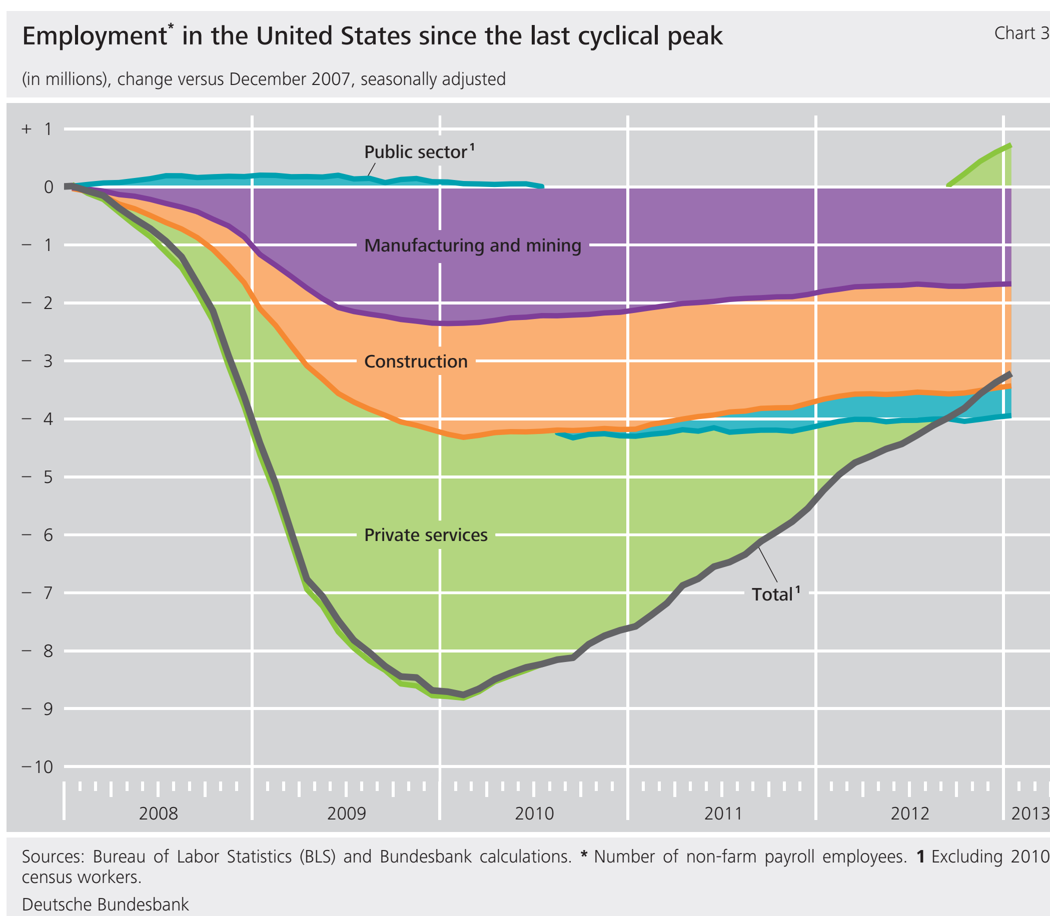
the current situation in manufacturing. In contrast, the developments on the international markets for other commodity classes also reflect specific influences which mostly stem from the respective supply side. For example, prices for food, beverages and tobacco dropped by only 5% in 2012, above all because a severe drought in the United States considerably dampened crop prospects in the summer and triggered a temporary price hike. The price of Brent crude oil even edged up slightly; in 2012 one barrel cost more on an annual average (US$111½) than ever before. In particular, restrictions on Iranian oil exports under the EU embargo and additional US sanctions, combined with the risk of serious oil supply cuts if the situation in the Persian Gulf were to escalate further, probably played a major part in what were at times considerable price rises. During the last four months of the year, prices stabilised at an elevated level. This was probably owing, above all, to production cutbacks by Saudi Arabia.

Easing of consumer price inflation in industrial countries

From 2.7% in 2011, consumer price inflation in industrial countries fell to 2.0% in the reporting year. Energy prices rose by only 3.6% compared with 2011, when they surged by 12.3%. At least households' real disposable income in the advanced economies was no longer as restricted as it had previously been, thanks to the easing of the price climate. Excluding the volatile components energy and food prices, the rise in the price of the basket of consumer goods in 2012 was almost as moderate as one year before (+1.6%).

US economy remains on growth path

In contrast to other industrial countries, the US economy was able to sustain its moderate expansionary course in 2012. Up by 2¼%, real GDP posted an even clearer growth rate than in the previous year when, not least, the effects of the severe earthquake in Japan on the automobile industry and the sharp oil price hikes pushed the growth rate down to 1¾%. The continuing improvement in the macroeconomic environment was owed, above all, to the robust expansion in private consumption; the latter, in turn, was driven by real increases in income. The fact that, with nominal wage increases remaining moderate, inflation (as measured by the Consumer Price Index) fell from 3.2% in 2011 to 2.1% in the reporting year contributed to that. A more important factor, however, was probably the continued labour market recovery. In 2012, new non-farm payroll employment was created for 2¼ million workers in net terms. By far the largest share of new jobs arose with private service providers which, apart from mining – that also includes the currently booming oil and gas production segment – is the only large economic sector to



Employment* in the United States since the last cyclical peak

Sources: Bureau of Labor Statistics (BLS) and Bundesbank calculations. * Number of non-farm payroll employees. **1** Excluding 2010 census workers.
Deutsche Bundesbank

see its workforce return to pre-crisis levels. The highly globalised manufacturing sector was unable to escape the effects of the global slowdown in demand last year. Both investment growth and job creation in this sector stalled for a time as a result. Furthermore, employment in the construction sector did not yet benefit from the beginnings of the housing market recovery. And finally, the necessary fiscal consolidation led to further job cuts in the public sector. Up to January 2013, the unemployment rate slipped to 7.9%. This is just over 2 percentage points below its high of October 2009. Nevertheless, the still rather high underemployment level in 2012 led the Federal Reserve to continue its monetary policy stimulus measures and to refine its communication strategy to steer expectations in the direction of a prolonged phase of expansionary policy.

Recovery in Japan falters

Aggregate output in Japan posted a substantial gain on average for 2012 (+2%) compared with the previous year. However, this was solely attributable to very strong growth in the second half of 2011 and early in the reporting year, which mainly resulted from the normalisation process following the slump that was induced by the natural disasters of March 2011. Further contributory factors were the incipient reconstruction work as well as additional fiscal stimuli – notably government incentives to buy new cars. By the second quarter of 2012, however, these measures ceased to bring fresh impetus to economic activity, and when they finally expired in the second half of 2012, they played a part in the sharp quarter-on-quarter contraction of real GDP. However, the cyclical setback in the third quarter was mainly attributable to foreign trade, which suffered above all from weak demand from China. The labour market was largely unaffected by the faltering economy: in January 2013, unemployment was ¼ percentage point lower year on year at 4.2%. Notwithstanding the signs of stabilisation in economic activity, at the beginning of 2013 the new government decided to imple-

ment further temporary support measures. Acting under strong political pressure, the central bank announced an inflation target of 2%, after it had already expanded its bond purchase programme several times. After falling in previous years, consumer prices remained unchanged in 2012, due primarily to energy price rises.

Recessionary trends in UK economy

The UK economy started 2012 in mild recession. The slight decline in aggregate output resulted mainly from a sharp correction in the construction sector, which probably reflected, not least, the contractionary effects of fiscal consolidation. Other factors which dampened economic activity were the global weakness in manufacturing and the steep downward trend in oil and gas production. In the summer of 2012, the aggregate output losses of the previous nine months were then reversed in just one quarter. However, this was mainly on account of special factors, notably the Olympic Games, as well as calendar effects. After a renewed decline in real GDP in the fourth quarter from the elevated level in the third quarter, a picture now emerges of a cyclical sideways movement. Annual average aggregate output in 2012 was unchanged year-on-year. Robust labour market developments are likely to have played a major part in stabilising the economy. The harmonised unemployment rate began trending downwards as far back as October 2011; within 13 months it decreased by 0.7 percentage point to 7.7% of late. In addition, the inflation rate, which is measured by the Harmonised Index of Consumer Prices (HICP), fell to 2.8% on average for the year, compared with 4.5% in 2011. The target of 2% was therefore still not achieved, however.

Recovery in EU-7 starts to falter

The macroeconomic recovery in the new EU member states as a whole (EU-7)[1] started to falter in 2012. On an annual average for the reporting year, real GDP grew by ¾% – owing primarily to the substantial growth overhang from the end of 2011 – compared with +3¼% the year before. Poland, the largest EU-7 economy, generated growth of +2%, which was only half the rate measured in 2011. This downturn was due, not least, to deceleration in construction activity, which had previously been boosted by the preparations for the UEFA European Football Championship. In contrast, the Czech Republic and Hungary slipped into recession as a result, above all, of their vulnerable external position and close economic links with the euro area. Bucking the regional trend, the macroeconomic recovery in Lithuania and Latvia continued at a strong pace. Consumer price inflation (as measured by the HICP) in the EU-7 states decreased slightly to 3.7%. Weaker inflationary pressure allowed a number of central banks to ease their monetary policy stance.

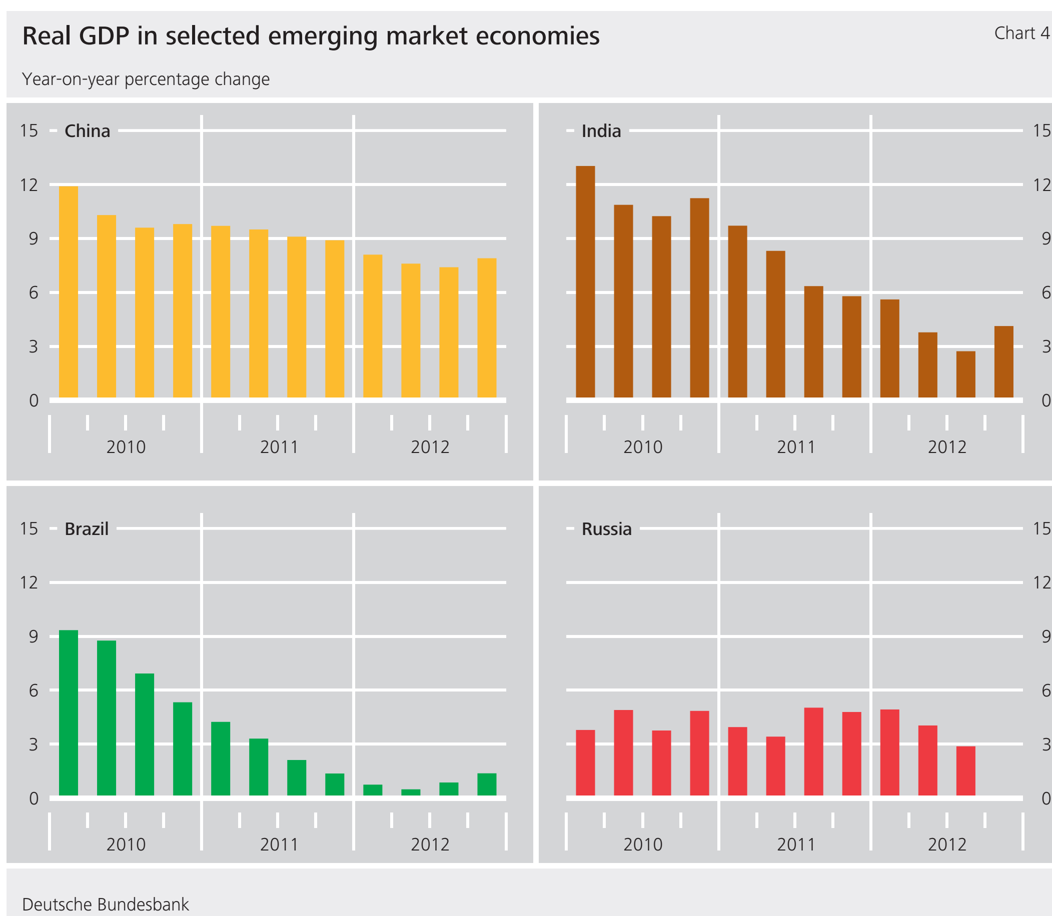
Pace of macroeconomic growth in Russia declines markedly

Last year saw the Russian economy reduce its pace of expansion markedly compared with 2011. The estimated 3½% increase in real GDP was fuelled primarily by buoyant growth in domestic demand, whilst exports – consisting for the most part of crude oil and natural gas – rose only moderately in price-adjusted terms. Russia became a full member of the World Trade Organization (WTO) in August 2012, after drawn-out negotiations with the partner countries lasting 18 years. Membership could improve Russia's export opportunities for industrial goods in the medium term and help the country push through much-needed economic diversification away from gas and oil production. The inflation rate, which averaged 8.4% in 2011, last year dropped to an all-time low of 5.1%. This was due primarily to the smaller increase in food prices.

Growth moderation in China

Aggregate growth in China at first weakened markedly in the reporting year. A flatter upward trend in exports owing to weak economic activity in major sales markets, especially in the euro area, was one of the reasons. An even more important factor was that Chinese domestic demand likewise slowed down. In particular, investment growth declined, largely on account of the cooling on the Chinese real es-

1 This group comprises the non-euro-area countries that joined the European Union in 2004 and 2007.



tate market. Against this background the Chinese authorities embarked on a number of economic support programmes in the summer months of 2012. For one thing, additional government infrastructure projects were adopted. For another, the regulated lending rates for commercial banks were lowered in two stages. Economic growth picked up again somewhat towards the end of the year. The Chinese government's average growth target for the year of 7½% was exceeded slightly (+7¾%); nevertheless, it was the slowest increase since 1999. Consumer price inflation weakened considerably over the year, primarily because food prices were very stable. The inflation rate for 2012 as a whole was 2.6%, compared with 5.4% in the previous year.

Expansion curbed considerably in India

The Indian economy saw its growth rate curbed again last year. Real GDP was 4% up on 2011, when growth of 7½% was generated. Investment demand in particular was sluggish. One reason for this may have been that the high government budgetary deficit and the small amount of progress made in overdue structural reforms undermined the confidence of domestic and foreign investors alike. However, to strengthen the flagging forces of growth, the Indian government at the end of 2012 rolled out a number of reform measures such as opening individual sectors to foreign direct investment. The Indian central bank cut its key interest rate in the second quarter of 2012, but faced with a stubbornly high inflation rate which, in terms of the CPI for India, averaged 9.7% for the year, the easier monetary policy stance was not continued until the beginning of 2013.

Slight growth in Brazil

The pace of macroeconomic growth in Brazil slowed down again significantly in the year under review. Real GDP was only 1% up on 2011, when growth of 2¾% was measured. Industrial output even slackened noticeably. The world economic slowdown is only one explanation for this; the significant deterioration in

price competitiveness seen over the last few years on the back of high wage increases and the marked appreciation of the Brazilian real was probably a more important factor. Moreover, structural impediments – in particular an overburdened infrastructure – are likewise curbing macroeconomic growth in Brazil. To tackle the economic slowdown, between mid-2011 and October 2012 the Brazilian central bank cut its policy rate by a total of 525 basis points to an all-time low of 7.25%. At 5.4%, the average inflation rate for the reporting year was just over 1 percentage point lower than in 2011, yet was still relatively high.

2 Exchange rates under the influence of the crisis and of measures to alleviate it

US dollar somewhat weaker on balance

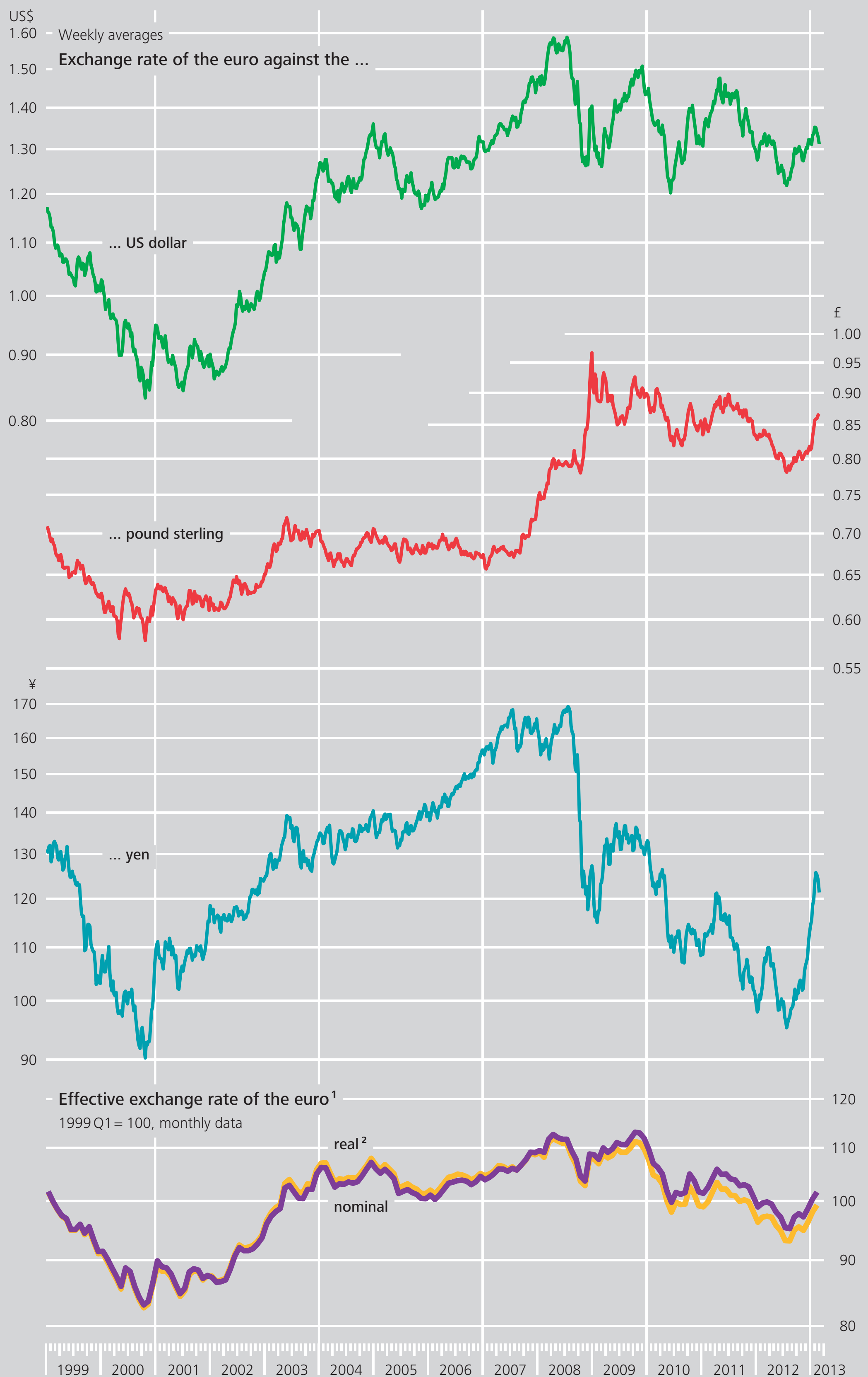
In 2012, shifting exchange rates between the main currencies were driven by differences in macroeconomic performance in the fifth year since the onset of the crisis, and by economic policy measures – monetary policy measures in particular – aimed at lending support to economic recovery. In this context, short-lived upside and downside movements often had no lasting influence on the value of the currencies concerned. For instance, at the beginning of the year, the US dollar came under pressure temporarily after the US central bank's Federal Open Market Committee announced in January that it expected to keep its policy rates at close to zero until 2014. In May, however, the US dollar regained noticeably in value, as investors withdrew funds from some of the euro-area peripheral countries in particular. But then this upward phase came to an abrupt halt, too, when markedly weak labour market figures at the beginning of June cast doubt on ongoing economic recovery in the United States. In late summer, the US dollar progressively relinquished its previous gains, particularly after the minutes from the Federal Reserve's August meeting indicated that market participants could probably expect further monetary easing measures. In mid-September, the Federal Reserve did in fact decide that it would implement a third round of asset purchases, amongst other things. Subsequently, the value of the US currency remained relatively stable. Over the year as a whole, the US dollar depreciated by 1½% as measured by the broad dollar index published by the Federal Reserve.

Euro gained against the US dollar …

The above factors also shaped the euro-US dollar exchange rate. Until the end of February, the euro initially appreciated against the US currency. From the end of April onwards, however, it experienced a marked decline when investors became less confident about some of the euro-area peripheral countries, owing, amongst other things, to increasing anxiety about the stability of the Spanish banking sector. In late summer, the expectations of monetary easing in the US referred to above – which then came about in mid-September – gave an appreciable lift to the euro. The currency's value rose again from November after the US presidential elections, when minutes from the Federal Reserve gave rise to renewed expectations of a further expansion in its asset purchases and when market participants' attention turned to the looming "fiscal cliff", which would have led to drastic cuts in US government expenditure at the start of the new year without a budget compromise. At year-end, the euro stood at US$1.32; this was equivalent to an appreciation of 2% over the course of the year. In its average value over the year, however, the euro was worth US$1.28 in 2012, which was 7½% below its value in the previous year.

… and the yen …

The euro's exchange rate against the yen was subject to greater fluctuation in 2012 than its rate against the US dollar, for instance. In the winter months at the beginning of the year, non-standard monetary easing undertaken by the Bank of Japan put the yen under pressure. In the spring, the euro then lost significant value against the yen, when the worsening of the crisis in Europe referred to above prompted capital flows into Japan. This trend was bolstered by surprisingly strong growth figures in



1 According to ECB calculations against the currencies of 20 countries. 2 Based on consumer price indices.
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Japan. However, from mid-summer onwards there were growing signs of renewed economic weakness in Japan. In autumn, the Japanese central bank expanded its asset purchase programme in several steps and, towards the end of the year, came under huge pressure from the new government to initiate further easing measures. As a result, the euro gained appreciably against the yen in the second half of the year. At the end of the year, it stood at ¥114, which was 13½% stronger than a year earlier.

… while falling against the pound sterling

The exchange rate between the euro and the pound sterling was heavily influenced in 2012 by news from the single currency area. For instance, from March to July, the euro lost value against the pound when tension on euro-area financial markets was heightened. The euro then recovered somewhat as the year progressed against the backdrop of the measures taken to alleviate the crisis. However, with a value of £0.82 at the end of the year, the euro was 2½% weaker than at the same time the previous year.

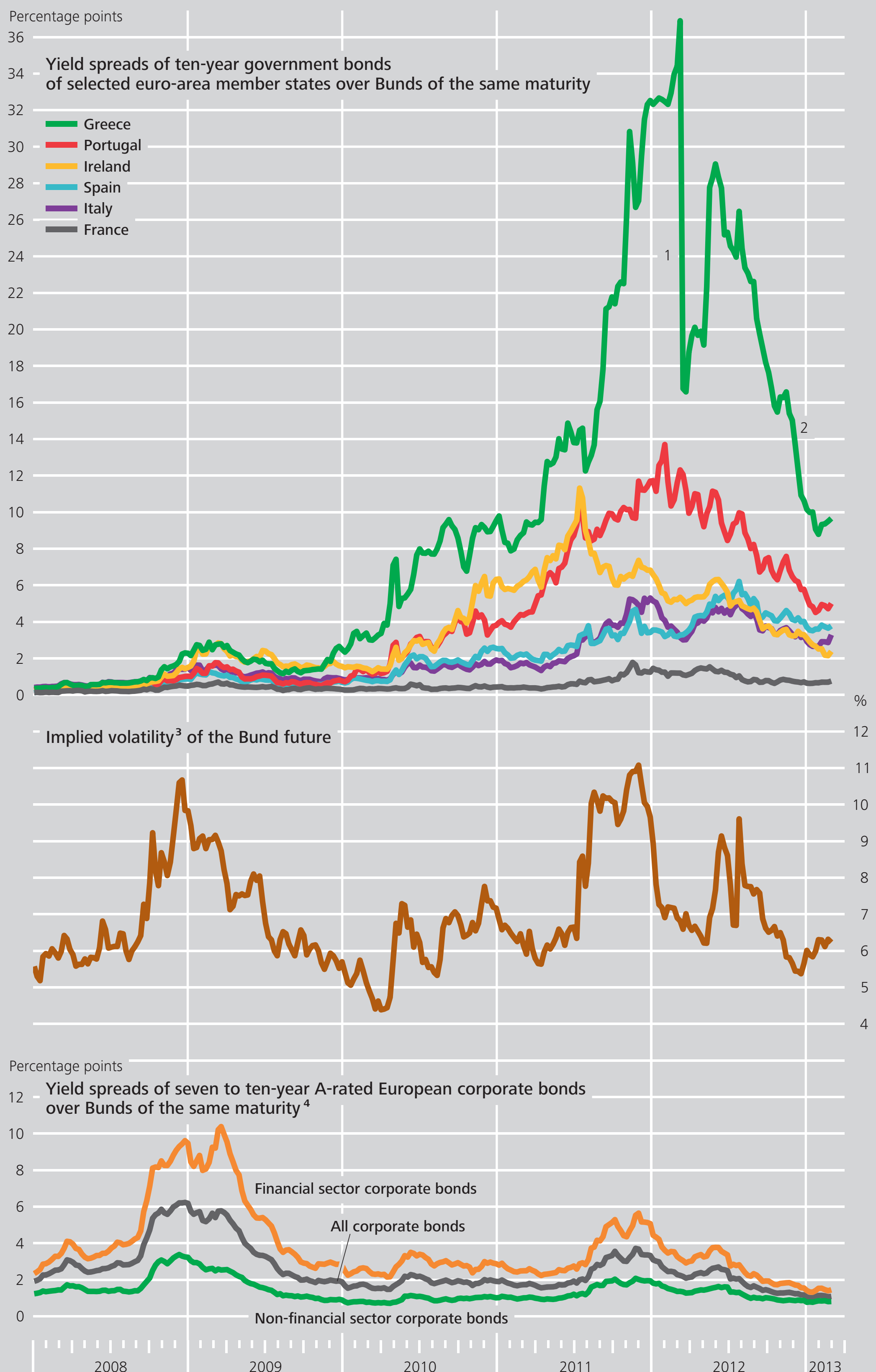
Euro more or less unchanged in effective terms

In terms of its weighted average against 20 trading partners, the euro lost ½% in value on balance in 2012. It recorded a moderate decline against the currencies of countries with the highest bond ratings (Australia, Canada, Norway and Sweden), amongst others. The Swiss franc stuck to a very constant level just above the minimum rate of CHF 1.20 to the euro set by the Swiss central bank, despite, at times, considerable net capital inflows into Switzerland. The Swiss National Bank prevented the franc from appreciating by selling it in the context of extensive foreign exchange market intervention. The euro exchange rate against emerging market currencies in 2012 was noticeably affected by the sentiment on the global financial markets. For instance, in the winter the euro was still depreciating against these currencies as a rule, at a time when a slight improvement in the world economy had brought a more relaxed mood to the financial markets. In the spring, however, financial market sentiment soured noticeably and the euro gained against many of these currencies. As the year progressed, it then depreciated again in many cases. The euro exchange rates of the currencies of the central European EU countries Poland, the Czech Republic and Hungary, as well as the euro/rouble rate, also followed the pattern described above. All these currencies were stronger against the euro at the end of 2012 than at the end of 2011. By contrast, the currencies of the major EMEs Brazil, India, China and South Africa (which, together with Russia, constitute a group of countries termed "BRICS"), lost value against the euro in 2012 on balance. The Chinese renminbi continued to track the US dollar relatively closely. The global holdings of foreign exchange reserves grew by 7% last year, a somewhat slower rate of growth than in 2011, and totalled US$10,922 billion at the end of 2012.

3 Capital markets caught between sovereign debt crisis and central bank measures

Financial market trends shaped by sovereign debt crisis and central bank measures

In 2012, trends on the capital markets were shaped principally by the sovereign debt crisis in the euro area on the one hand and by monetary policy measures undertaken by the major central banks on the other. In addition, concerns about the economy increased in the course of the year. The prospect of another three-year Eurosystem refinancing operation brought calm to the capital markets at the beginning of the year. This had an effect on government bond yields in euro-area peripheral countries in particular, which fell appreciably in expectation of easier access to the capital market. However, the two programme countries Portugal and Greece did not benefit from this trend. With regard to Portugal, there were increasing doubts as to whether the expansion in public debt was sustainable. As for Greece, market participants were unsettled by the fact that the country looked as if it would not meet primary objectives of the agreed assistance



1 Haircut of 9 March 2012. **2** Announcement of the terms of the Greek debt buyback programme on 11 December 2012. **3** Expected future volatility calculated from options prices. **4** Sources: iBoxx and Bundesbank calculations.

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Greek bond exchange brings no lasting relief to the markets

programme. In addition, Greece's negotiations with private creditors about taking a voluntary haircut on their claims were proving difficult. However, in March 2012, under pressure to meet the requirements for the second assistance package which had become necessary, an agreement was finally reached whereby the Greek government would exchange Greek bonds currently in circulation for new Greek bonds with maturities of up to 30 years and shorter-dated EFSF bonds. However, the reduction in Greek public debt achieved by this measure did not bring lasting relief to the markets, as market participants remained doubtful as to whether the move would be sufficient. Uncertainty was heightened by a general election in May and the failure to achieve a workable majority, making fresh elections necessary in June. In addition, attention became focused on concerns about the Spanish banking system and the country's public finances, with the result that financing terms subsequently worsened appreciably for all peripheral countries. Because of the growing uncertainty, investors increasingly preferred liquid, top-class assets, and safe haven flows drove down yields in Germany, the US and Japan. For instance, at the beginning of June the yield on ten-year Bunds reached a new all-time low of just over 1.0%. Accordingly, the bond yield spreads in the euro area widened further at this stage. Excluding reduced Greek yields resulting from the bond exchange, the GDP-weighted yield spread reached a new high at mid-year (see chart on page 29).

Safe haven flows drive down Bund yields to all-time low

Trend turnaround at the end of July

At the end of July 2012, the trend on the bond markets turned. This was prompted by ECB President Mario Draghi's pledge to do whatever it takes within the central bank's monetary policy mandate to preserve the euro. In the period following this, in which the details of the planned Eurosystem bond buying programme (Outright Monetary Transactions, OMT) were worked out, and the US and Japanese central banks also announced bond purchase programmes, bond yields in peripheral countries fell significantly. At the same time, nervousness on the bond markets abated, bringing implied volatility in Bund future options back below its five-year average (see chart on page 29). Market participants' concerns about the sustainability of government finances in some countries and about the interconnectedness of sovereign and bank risk faded into the background to an extent in this period. Yields in European core countries and the United States rose again slightly by the year-end, but remained below the levels seen at the beginning of the year. Yields on ten-year Bunds and corresponding US paper fell overall during the course of the year by just over 60 and close to 20 basis points to 1.2% and 1.8% respectively. Weaker economic prospects as the year progressed are also likely to have dampened yields. According to the consensus forecast, expectations for real GDP growth in Germany for 2013 fell by 0.8 percentage point, whilst they declined by 1 percentage point for the euro area. There were revisions of a comparable size for the US and Japan.

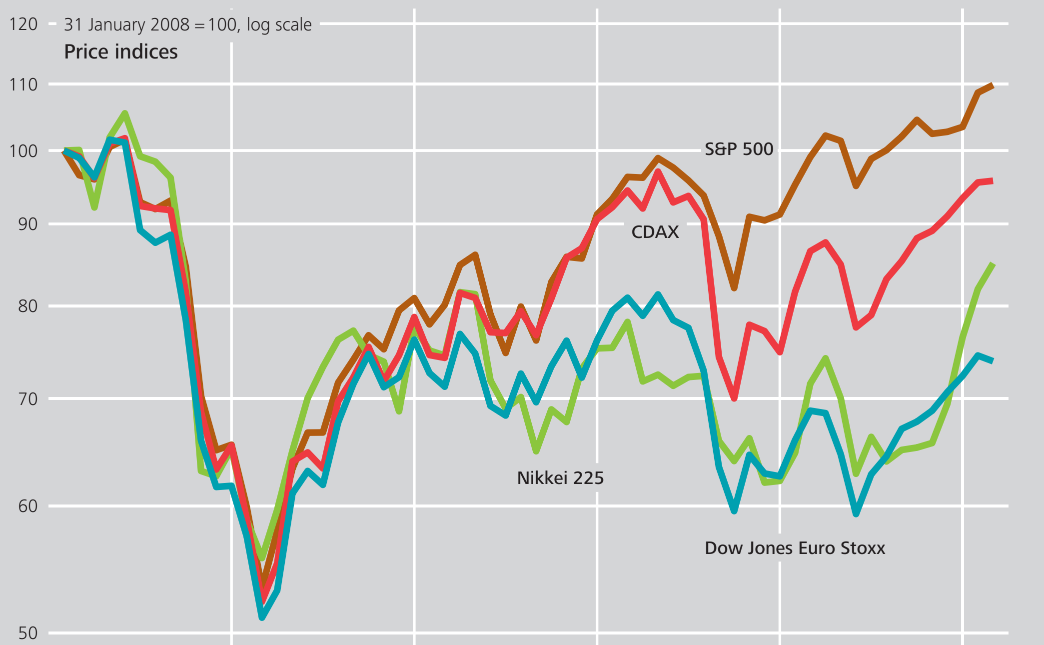
Improved funding terms for corporations on capital markets

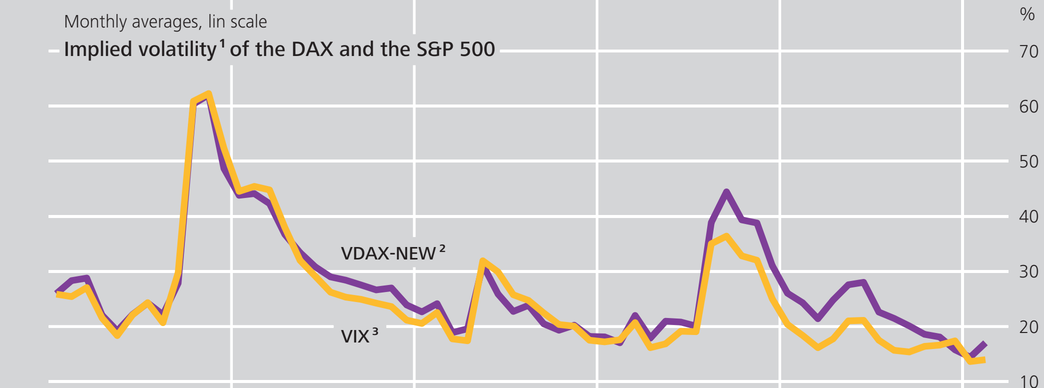
With central bank interest rates continuing low and increased investor risk appetite in the second half of the year, corporate funding terms on the capital market eased significantly, reaching all-time lows at the end of the year. For example, yields on European corporate bonds with an investment grade rating of A and a residual maturity of seven to ten years fell on balance by just under 270 basis points on the year to 2.4% as measured by the iBoxx bond indices. The drop in yields for enterprises operating exclusively in the financial sector was more than double that for non-financial enterprises, with the result that the bond yield differential between the financial and non-financial sectors narrowed significantly, from an average of 310 basis points at the end of 2011 to less than 70 basis points at the end of 2012 (see chart on page 29). The main reasons for this are likely to have been market participants' sense of the debt crisis easing and the recapitalisation of struggling credit institutions. Previously, it was precisely the exposure to risky euro-area government bonds that had engen-

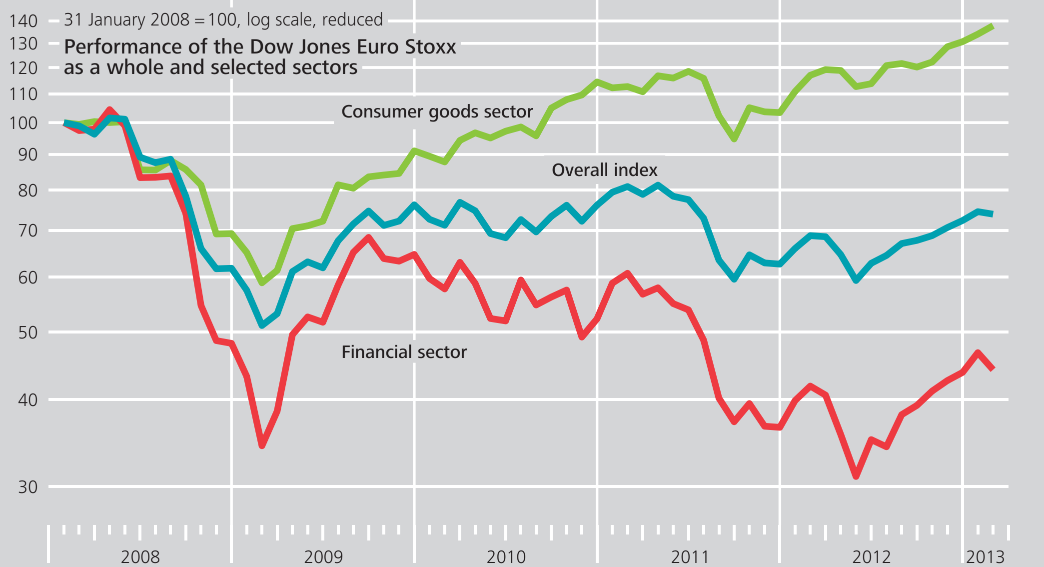
Equity market

Chart 7

End-of-month levels







Sources: Thomson Reuters and Bundesbank calculations. **1** Expected future volatility calculated from options prices. **2** Based on options on the DAX 30. **3** Based on options on the S&P 500.

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dered significantly less favourable funding terms for banks and other financial enterprises. Non-financial enterprises in the euro area made use of the improved terms and increased the total value of their net issues appreciably compared to the previous year. In euro-area peripheral countries, too, particularly in Italy, corporate funding terms eased significantly against those prevailing in the previous year.

Marked price gains on international equity markets

In 2012, the key international equity markets recorded sharp price gains overall against the backdrop of accommodative monetary policy. For instance, Japan's Nikkei share index and the S&P 500 in the US registered gains over the course of the year of 23% and 13% respectively. The euro area also experienced gains, despite the sovereign debt crisis, with share prices for enterprises listed in the Dow Jones Euro Stoxx rising by just under 16% on average overall. German shares did significantly better, climbing 25% on average, as measured by the broadly based CDAX equity index (see chart on page 31). German share prices are likely to have benefited principally from the export strength of domestic firms in high-growth regions. This strength is reflected in increased earnings expectations for the next 12 months. There are not the same expectations for Euro Stoxx-listed enterprises. Valuations for German stocks as measured by the price/earnings ratio had risen to 11.0 at the year-end, which was slightly above the five-year average, though this average was very much influenced by the financial crisis in the euro area. Compared with the longer-term average over the period since the beginning of the European monetary union (13.9), current valuations appear moderate.

As with the bond markets, trends on the international equity markets over the course of 2012 were driven principally by the sovereign debt crisis and by the monetary policy measures of the major central banks. For instance, the prospect of another three-year ECB tender at the beginning of the year led to a positive assessment for financial stocks in particular. In the second quarter, less favourable economic prospects and the exacerbation of the debt crisis referred to above brought sharp price reversals. Market participants' attention focused in particular on the Spanish banks, which came under pressure from plummeting prices on the Spanish property market and doubts about the sustainability of the country's public finances. Then, at the end of the first half a turnaround on the equity markets set in, prompted initially by the expectation that beleaguered Spanish banks would be recapitalised. In addition, share prices were bolstered by the formation of a government in Greece, hopes of an easing in US monetary policy and the mooted assistance measures from the Eurosystem. As a consequence, uncertainty on the equity markets steadily abated, as reflected in the reduction in implied volatilities in equity options (see chart on page 31). It was only in the US that uncertainty returned to its mid-year level for a short time at the end of the year as a result of the looming "fiscal cliff" and concerns about the weakening effect this would have on the economy.

II Economic and monetary developments in the euro area

1 Continuing economic weakness and further deterioration in the situation on the labour market

Continuing recessionary tendencies in 2012

The economic slowdown in the euro area persisted throughout 2012, having begun in the final quarter of 2011 after a period of no more than subdued growth lasting only two years; in the final quarter of 2012, growth became markedly weaker still. This negative development was due to the European sovereign debt and banking crisis as well as the cooling of the global economy. On an annual average, overall output in the euro area fell by ½%, having expanded by 1½% in 2011. The decline on the – admittedly cyclically heightened – pre-crisis level widened to 3%. Furthermore, the underutilisation of aggregate capacity increased again on an annual average in 2012.

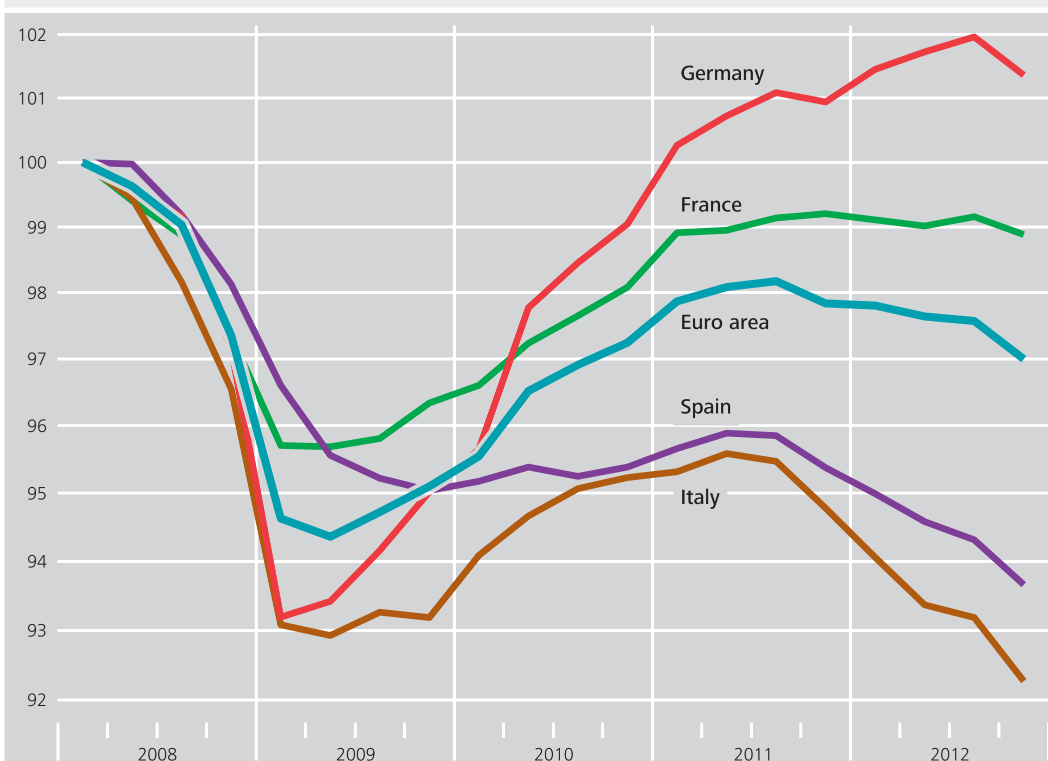
Most sectors and demand components affected

The decline in GDP was broadly based in sectoral terms. In 2012, gross value added in the construction sector was 3½% down on the year; the corresponding figure in the production sector (excluding construction) was 1½%. Several branches of the services sector were also affected, although the decline was not as strong in this case. Business-related services, at any event, maintained the previous year's level. On the output side, the recessionary development was due to the ongoing contraction of domestic demand (-2¼% on an annual average). The largest contraction was in gross fixed capital formation, with an even steeper decline

Real GDP in the euro area and in selected member countries

Chart 8

Last pre-crisis peak in GDP (2008 Q1) = 100, seasonally adjusted



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Economic performance in the euro area

Table 2

Group of countries/country	Real GDP		Consumer prices[1]		Unemployment rate[2]	
	2011	2012	2011	2012	2011	2012
	Year-on-year percentage change				As a percentage	
Euro area	1.4	– 0.6	2.7	2.5	10.2	11.4
Belgium	1.8	[3] – 0.2	3.5	2.6	7.2	7.3
Germany	3.0	0.7	2.5	2.1	5.9	5.5
Estonia	8.3	[3] 3.6	5.1	4.2	12.5	10.1
Ireland	1.4	[4] 0.7	1.2	1.9	14.7	14.8
Greece	– 7.1	– 6.4	3.1	1.0	17.7	[5] 24.1
Spain	0.4	– 1.4	3.1	2.4	21.7	25.0
France	1.7	– 0.1	2.3	2.2	9.6	10.2
Italy	0.4	[3] – 2.2	2.9	3.3	8.4	10.7
Cyprus	0.5	[3] – 2.3	3.5	3.1	7.9	12.1
Luxembourg	1.7	[4] 0.2	3.7	2.9	4.8	5.0
Malta	1.6	[4] 1.0	2.5	3.2	6.5	6.5
Netherlands	1.0	– 0.9	2.5	2.8	4.4	5.3
Austria	2.7	0.7	3.6	2.6	4.2	4.3
Portugal	– 1.6	[3] – 3.2	3.5	2.8	12.9	15.9
Slovenia	0.6	– 2.3	2.1	2.8	8.2	9.0
Slovakia	3.2	2.0	4.1	3.7	13.6	14.0
Finland	2.7	– 0.2	3.3	3.2	7.8	7.7

1 Harmonised Index of Consumer Prices (HICP). **2** Standardised unemployment rate. **3** Figure based on seasonally adjusted data. **4** European Commission projection (winter forecast, February 2013). **5** January-November 2012.
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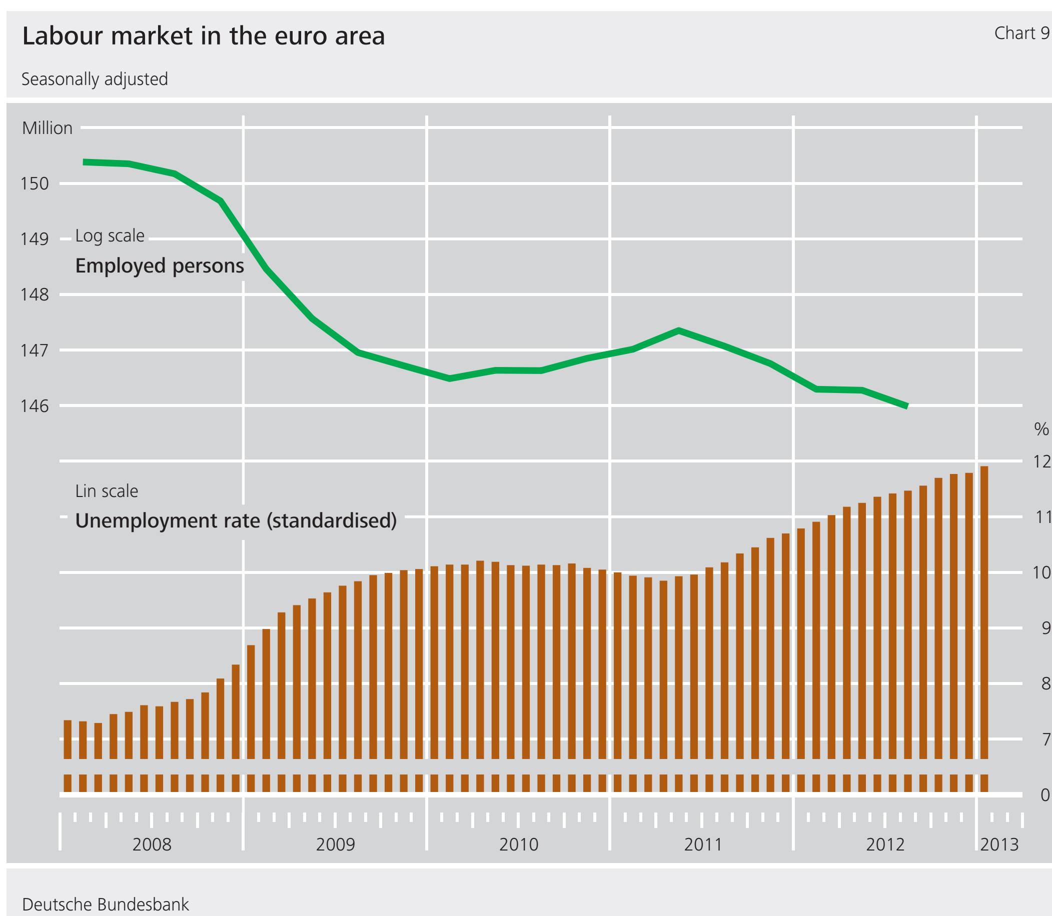
in machinery and equipment than in the case of buildings. Private consumption, too, showed a marked drop. Domestic demand was dampened, first, by the considerable efforts still being made to consolidate public finances, above all in the peripheral countries, as well as by households in a number of countries attempting to reduce their sometimes very high levels of debt. Added to this were – at least temporarily – tighter financing restrictions on enterprises in the crisis-hit countries and negative confidence effects owing to escalations of the financial crisis in the euro area as well as rapidly rising unemployment in many places. Additional strains were likewise posed by crude oil prices, which underwent a further marked increase on an annual average in euro terms, chiefly owing to the depreciation of the euro. The only positive impulses came from exports, although the slower pace of global economic activity, at 2½%, meant that export growth was not even half as large as in 2011. If the moderate decline in real imports is also taken into consideration, net exports' contribution to growth may have amounted to 1½ percentage points.

Still major economic differences among euro-area member states

Once again, the contraction in euro-area GDP conceals major differences among the member states. Roughly half of the countries were faced with a decline in economic activity, including most of the crisis-stricken countries, as well as the Netherlands, Belgium and Finland. Among the peripheral countries in southern Europe, it was Greece, yet again, that suffered the severest slump (-6½%). At the end of the year, Greek economic output was almost one-quarter down on its level in the fourth quarter of 2008. Furthermore, overall economic output shrank by 3¼% in Portugal, 2½% in Cyprus, 2¼% in Italy and 1½% in Spain. However, in Spain and Portugal the steep decline in domestic demand stood in contrast to the marked growth in exports. In the other member states, the level was either maintained or even increased, although the pace of activity slowed significantly



in all cases over the course of the year even in those countries where output was rising. The final quarter of the year saw a fall in real GDP in 12 of the 14 countries for which initial data are available, including Germany. Altogether, the German economy gave noticeable support to business activity in the euro area. If Germany is excluded, overall euro-area output declined by 1%. Growth was also achieved by Estonia, Slovakia, Austria and Ireland. In France, real GDP remained virtually unchanged.

Somewhat better outlook for 2013

The outlook for the euro area has improved slightly in recent months. In particular, survey-based leading indicators have been pointing upwards again since the fourth quarter of 2012. Marked expansionary forces have not been identifiable hitherto in the production data, however. A cyclical turnaround is therefore probably not to be expected before the middle of the year, and, even then, the upturn is likely to make only slow progress at first. Against this backdrop, the ECB staff March forecast expects a further contraction of ½% in euro-area real GDP on an annual average (mean of the projection range). This assumes that there will be no escalation of the sovereign debt and banking crisis in the euro area, that the situation in the crude oil markets remains calm and that the upturn in the world economy since the final quarter of last year will continue. All forecasts for the euro area currently assign a greater weight to the downside risks than to the prospects of more favourable developments.

Labour market placed under a strain by the recession and structural adjustments

The unrelenting recession and the structural adjustments in the countries hit by the crisis have left a deep mark on the labour markets of the euro-area member states. The number of people in work in the first three quarters of 2012, for which data are available, fell by 929,000, or 0.6%, on the year, with the decline being concentrated on the crisis-hit countries. This was accompanied by a marked rise in unemployment. At the end of 2012, the number

Economic policy coordination in the European Union

The sovereign debt and banking crisis revealed that the euro area's existing coordination instruments were inadequate and, furthermore, that existing regulations were not applied rigorously enough. In recent years, a range of new mechanisms and procedures have therefore been introduced, including the procedure for the surveillance and correction of macroeconomic imbalances, for which initial observations are now available. Additional regulations and initiatives were introduced in 2012, but have not yet been fully implemented.

EU semester: integrated guidelines and budgetary surveillance

In its Annual Growth Survey for 2012, which was published in November 2011 and marked the beginning of the second European semester, the European Commission criticised an implementation gap in relation to previous economic policy recommendations. The Commission therefore proposed five priority areas: i) country-specific and growth-friendly fiscal consolidation, ii) restoring normal lending to the economy, iii) promoting competitiveness and growth *inter alia* through measures designed to integrate the single European market and more targeted use of EU budgetary resources, iv) tackling unemployment and the social consequences of the crisis and v) modernising public administration.

The report was endorsed by the European heads of state or government at their spring meeting in March 2012. It formed the basis for the general horizontal guidelines used to define the framework for the stability and convergence programmes and reform programmes presented by the member states. After assessing these programmes, the Council issued country-specific recommendations and opinions in July 2012.

In its Annual Growth Survey for 2013, which was published in November 2012 and marks the beginning of the current European semester, the Commission highlights the unfavourable macroeconomic environment. The survey reports that progress has nevertheless been made in reducing macroeconomic imbalances, including current account deficits, and improving the international competitiveness of the crisis countries. The five priority areas listed in last year's Annual Growth Survey still apply. The Commission's report and recommendations were endorsed by the European Council at its meeting in December 2012.

Surveillance of imbalances

In February 2012, the European Commission published its first Alert Mechanism Report as part of the new procedure for the surveillance and correction of macroeconomic imbalances. Ireland, Greece, Portugal and Romania, which are already subject to increased surveillance under adjustment programmes linked to financial assistance, were not examined. For twelve EU countries, including the euro-area countries Belgium, Cyprus, Finland, France, Italy, Slovenia and Spain, an in-depth review by the Commission showed that although there were no excessive imbalances that would justify the application of the excessive imbalance procedure, there was a need for correction. This was the case for Cyprus and Spain in particular, where the Commission identified very serious imbalances. The data for both countries would also have justified the launch of an excessive imbalance procedure. The recommendations for correction

were integrated into the country-specific guidelines and the Council's statements on the stability and convergence programmes in summer 2012.

In November 2012, the Commission issued its second regular Alert Mechanism Report. The Commission announced that it would carry out an in-depth review of 14 EU member states. In addition to the countries that were examined in greater depth for the first time in spring 2012, Malta and the Netherlands will also be reviewed in more detail. The results will be published in spring 2013.

New legislation and further initiatives

At their meeting on 29 June 2012, the European heads of state or government adopted a "Compact for Growth and Jobs", encompassing action to be taken by the member states and the European Union with the aim of relaunching growth, investment and employment as well as making Europe more competitive. The member states thereby strengthened their commitment to taking the immediate measures needed at national level to realise the "Europe 2020" strategy and, in particular, to implementing the country-specific recommendations. The Community's contribution mainly consists of further consolidating the single European market and rapidly improving the economy's access to finance. In this context, the European Council endorsed proposals for the launch of project bonds as part of a pilot project to reallocate and mobilise the remaining structural fund resources of the Community budget for the years 2007 to 2013 and to increase the paid-up capital of the European Investment Bank (EIB). The "Growth Pact" primarily relies on governments to manage growth. "Free-rider" and crowding-out effects associated with EIB loans and structural fund resources are likely to diminish the growth effects.

The Treaty on Stability, Coordination and Governance in the Economic and Monetary Union, which was drawn up with the aim of strengthening budgetary discipline and which also includes the Fiscal Compact, was finalised by all EU countries apart from the Czech Republic and the United Kingdom on 30 January 2012 and signed on 2 March 2012. After being ratified by twelve euro-area countries, the Treaty came into force on 1 January 2013. Under the Treaty, Council members pledge to support the Commission's recommendations and proposals on all decisions in the excessive deficit procedure of the Stability and Growth Pact (SGP) regarding failure to comply with the deficit criterion, unless a qualified majority opposes this. Furthermore, the participating countries are obliged, in particular, to incorporate the agreed provisions on budget limits into their national legislation within a year, which will be verified by the European Court of Justice in case of doubt. The medium-term budgetary objective of a structurally close-to-balance budget or surplus, which is also contained in the SGP, is therefore to be enshrined in national legislation. If targets are missed by a significant margin, a predefined correction mechanism should be triggered. However, this will not be verified by European institutions such as the European Court of Justice. The objectives of the Fiscal Compact are welcome. If it were possible, by anchoring it more firmly in legislation, to render compliance with the medium-term budgetary objective the norm, this would be an important contribution to securing the sustainability of public finances. However, the common provisions for the national rules are extremely broad. The success of the Fiscal Compact – and therefore the sustainability of public finances in particular – ultimately hinges on its implementation and application in the national context. Yet aside from its potential to reinforce fiscal rules, the Fiscal Com-

pact in no way introduces a fiscal union involving the widespread transfer of budgetary sovereignty to a central level.

Despite two further regulations (known as the "two pack") that supplement the SGP, hardly any decision-making powers are being transferred to the Community. On 23 November 2011, the European Commission put forward two proposals for regulations, which were agreed upon during the trilogue negotiations on 20 February 2013. The first regulation proposal relates to a general improvement in the budgetary surveillance of the member states. In particular, as already stipulated in the Fiscal Compact, the medium-term budgetary objective is to be enshrined in the national legislation. Furthermore, public statements issued by the Commission are intended to have an impact on the member states' budgets at the planning stage. If the budgetary rules are seriously breached, the Commission can also require a country to produce a revised draft budget, but no sanctions are envisaged if the rules continue to be flouted. Countries subject to an excessive deficit procedure can also be monitored more closely. However, it is still not possible to directly influence the national budget. The second regulation proposal provides for a procedure, enshrined in EU law, for countries experiencing serious difficulties with regard to financial stability or at risk of encountering such difficulties. The more serious the difficulties a country faces or the more extensive the financial assistance granted, the more intensive the surveillance should be. Measures are agreed with each country that is subject to increased surveillance. The implementation of these measures is monitored by the Commission, in cooperation with the ECB, on regular missions to the member state. If further measures are required and the financial stability of the euro area is at risk of being adversely affected, the Commission should propose, and the Council should decide (with a qualified majority), that the country should prepare a macroeconomic adjustment programme. Together with the ECB, the Commission monitors its implementation and, in the event of deviations from the programme, may advise the Council to declare non-compliance. The Council makes a decision in this respect with a qualified majority. However, the consequences of non-compliance have not yet been specified in the rules. In principle, the regulation therefore enshrines much of the intergovernmental assistance measures of the European Stability Mechanism (ESM) in EU law. However, the relationship of this regulation to the ESM Treaty, which sets out the conditions for receiving financial assistance, has not been clarified. This is problematic *inter alia* because the voting modalities in the Council (by qualified majority) differ from those in the ESM (by mutual agreement, ie unanimity).

The ESM Treaty entered into force on 8 October 2012. It acts as a permanent crisis resolution mechanism which, subject to conditions, can provide assistance to countries should the financial stability of the euro area and its member states be at risk. Its total capital amounts to €700 billion, €80 billion of which is to be paid in by the euro-area countries. The first two tranches (of 20% each) were due in 2012, the next two tranches are to be transferred in 2013 and the final tranche is to be paid in 2014. The maximum effective lending volume is €500 billion. Contrary to the original intentions, it was decided that commitments totalling €200 billion made by the European Financial Stability Facility (EFSF) to Ireland, Portugal and Greece by spring 2012 would not be deducted from the ESM's capacity. The interest on ESM loans should essentially not exceed the amount needed to cover

the funding and administration costs. Like the EFSF, in addition to providing loans, the ESM will be able to grant precautionary credit lines, intervene on the primary and secondary markets and issue special-purpose funds to countries to recapitalise their financial institutions. Furthermore, direct recapitalisation of banks may also become possible once an effective single supervisory mechanism has been created. *Inter alia*, the decision to forego risk premiums is problematic because extensive interest rate subsidies reduce the incentives for independent financing. It is therefore all the more important to limit these unhealthy incentives through clearly formulated and strictly enforced conditions.

The Quadriga report: proposals for the shape of a future economic and monetary union

The presidents of the European Council, the Eurogroup, the European Commission and the European Central Bank presented a report to the European heads of state or government at their meeting on 29 June 2012. The report outlines four building blocks for the future economic and monetary union. An integrated framework should be created for both the financial system as well as for national fiscal and economic policies. At the same time, democratic legitimacy and responsibility should be strengthened. The group received a mandate to "develop a specific and time-bound roadmap for the achievement of a genuine economic and monetary union" by the end of the year. On the basis of this final report, at their meeting on 13 and 14 December 2012, the European heads of state or government agreed on a roadmap for the task of further developing economic and monetary union. However, compared with the requirements of the Quadriga report, this mandate is significantly less ambitious. The plans for further development focus on the short-term implementation of technical measures which are hoped will help to resolve the crisis and promote growth and employment. This includes the complete implementation of both the legislative package on economic governance (known as the "six pack"), which entered into force at the end of 2011, and the "two pack" as well as the creation of a single European supervisory mechanism (see the comments on pages 94 and 95). The presidents of the European Council and the European Commission were asked to compile a list of potential measures and implementation deadlines for the *ex ante* coordination of important reform projects in the member states as well as contractual reform agreements between governments and EU institutions by mid-2013. At the same time, the introduction of "solidarity mechanisms" to provide financial assistance for the implementation of the reforms should be reviewed. The deliberations of the Quadriga and Commission reports on a separate euro-area budget to automatically stabilise divergent economic developments (in the form of a European unemployment insurance, for example) were not mentioned in the conclusions.

of persons out of work, at 18¾ million, was almost 2 million higher than one year earlier. The seasonally adjusted unemployment rate climbed to 11.8% in November-December – its highest level since the launch of the monetary union. Once again, the peripheral countries were strongly affected, with rates at the end of 2012 ranging from 11.3% in Italy to 27.0% in Greece (November). In some of these countries, unemployment in the category of young persons under 25 years of age was, in fact, more than twice as high. The difficult labour market situation in the crisis countries and the general wealth losses have, in some cases, noticeably dented the general public's willingness to accept the consolidation and reform measures undertaken by their governments. Ultimately, however, no country so far has departed fundamentally from the course of adjustment embarked on.

Still marked consumer price inflation

There was little easing of euro-area consumer price inflation in 2012. Annual average HICP inflation was 2.5%, compared with 2.7% in 2011. Owing to the distinctly weaker exchange rate against the US dollar, crude oil prices accelerated significantly in euro terms; as a result, consumers paid 7.6% more for energy than in the year before. As in 2011, there was an exceptionally steep rise in food prices, at 3.1%, with price impulses from the international markets being a factor here, too. The rate of price increase for industrial goods (excluding energy) went up to +1.2%. The dampening effects of the cyclical slowdown were probably counteracted not only by the weaker euro but also by the further hike in indirect taxes in some member states. Among other things, this affected the prices of services, which went up by 1.8%, which was just as much as in the previous year. The general price trend flattened during 2012. At the end of the year, the annual HICP rate was only slightly above 2%. In February 2013, the figure according to the initial estimate was 1.8%.

The continuing adverse economic developments in the euro-area peripheral countries should not conceal the fact that progress has been achieved in reducing macroeconomic imbalances. The large current account deficits prior to the global recession, which were a key cause of the crisis in the peripheral countries, have become significantly smaller in recent years and the position has even been turned into a surplus in Ireland. Further improvements are expected for the current year and next year. There is much to suggest that this is primarily a sustained adjustment and not just cyclical or short-lived. For one thing, the decline in imports is linked to losses of potential in the wake of the crisis and to the consolidation-related long-term pushing back of domestic demand. For another, exports have clearly risen sharply in many cases despite moderate market growth. This is the outcome of seeking out expanding sales markets when faced with subdued domestic demand and of the progress achieved in improving price competitiveness in some peripheral countries. Moreover, a positive view is to be taken of the fact that structural reforms are under way, even though there is still a considerable amount to be done in most cases. The growth stimuli that can be expected are still not discernible, however. This might be due partly to a critical mass of reforms not yet having been achieved in some places and the measures taken so far not yet being in force long enough to have a noticeable impact. Another reason might be that potential positive effects generated by the reforms are being masked by the severe recession. Going by experience, they will emerge clearly only following a cyclical recovery.

Notable successes in reducing current account deficits and progress in structural reforms

2 Monetary policy and money market developments

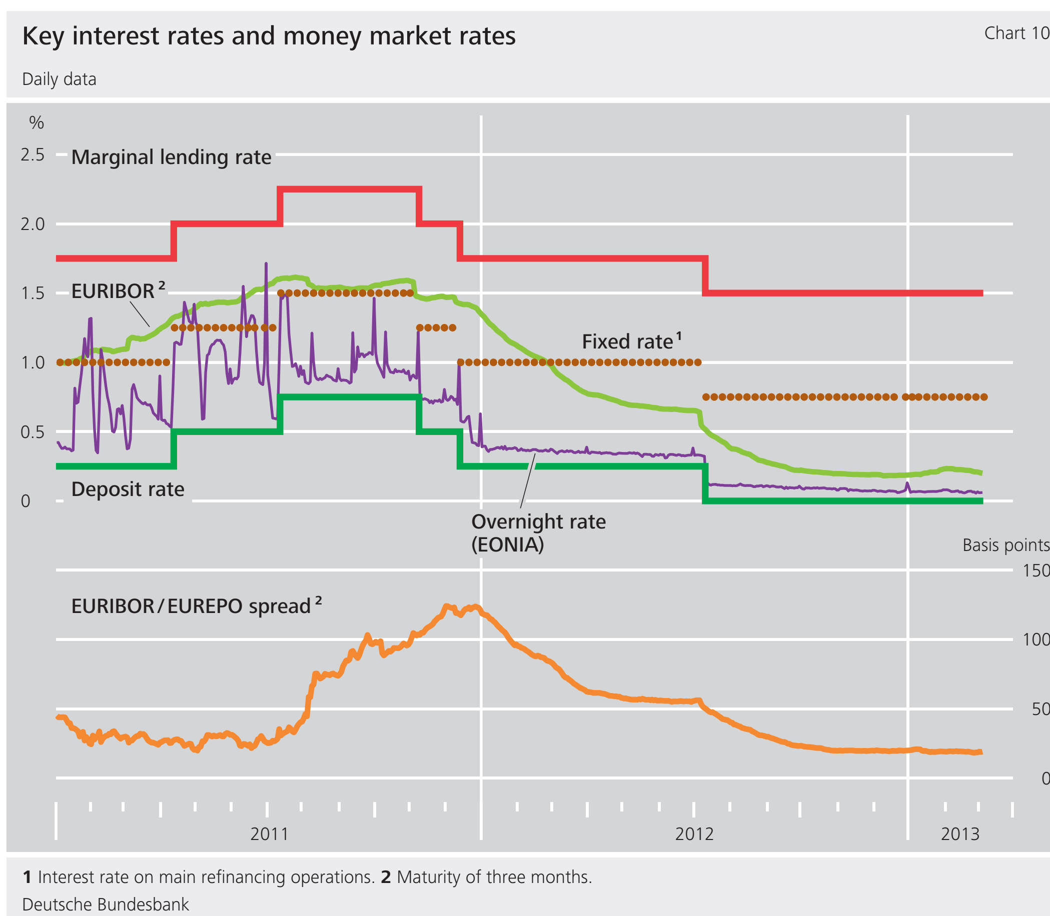
ECB Governing Council cuts key interest rates to record low …

Given the ongoing tensions in some euro-area sovereign debt markets and the need for consolidation measures in the affected member states, the cyclical slowdown in the euro area continued in the reporting period. Against this backdrop, the Governing Council of the ECB

Key interest rates and money market rates

Daily data

Chart 10



1 Interest rate on main refinancing operations. **2** Maturity of three months.
Deutsche Bundesbank

decided at the beginning of July to lower each of its three key interest rates by ¼ percentage point. The main reason for this decision was the assessment that the continuing deterioration in the economic outlook had dampened inflationary pressure over the relevant monetary policy horizon, which was also revealed by the subdued underlying pace of monetary expansion.

Even so, the persistent economic weakness was not yet being accompanied by a marked easing of inflationary pressure in the reporting period. Rather, in the course of the reporting year, inflation forecasts for 2012 and 2013 had to be revised upwards again owing to stronger-than-expected increases in energy prices and the weaker exchange rate. With this in mind, the Governing Council of the ECB did not take any further interest rate policy measures after the lowering of interest rates at the beginning of July. The main refinancing rate thus currently stands at the record low of 0.75%. The Eurosystem's counterparties obtain overnight loans through the marginal lending facility at 1.5%, while banks' balances in the deposit facility are still being remunerated at 0%. For the monetary policy counterparties of the Eurosystem, the exceptional situation arises in which excess liquidity in the deposit facility is no longer earning more interest than excess reserves, which are held in current accounts with the national central banks. Since the maintenance period ending on 7 August, the deposit facility has therefore been used less than before and institutions' deposits in the Eurosystem's current accounts have increased accordingly.

… and adopts further non-standard monetary policy measures

In addition, 2012 saw earlier Governing Council decisions on non-standard monetary policy measures being implemented and further decisions being taken. The first half of the year was shaped, in particular, by the two three-year refinancing operations decided in December 2011, the first being conducted in the same month and the second in March 2012. With

Money market management and liquidity needs

The fixed rate and full allotment policy in place for more than four years now allowed the provision of a generous supply of liquidity to remain the focus of the Eurosystem's money market management. Following the allotment of the second three-year tender at the beginning of March, this caused an increase in the provision of, above all very long-term, central bank liquidity. However, the Covered Bond Purchase Programmes (CBPPs) contributed only a comparatively small amount of new liquidity. As in the previous year, demand was considerably above the calculated liquidity needs, though the reduction of the reserve requirements by one-half from 2% to 1% at the start of 2012 was more than offset by an increase in the autonomous factors, implying that the need for liquidity, on the whole, increased somewhat on the year. Both the reduced demand for tenders, which became particularly apparent following the decision on Outright Monetary Transactions (OMTs) of 5 September, and the higher autonomous factors led to average excess liquidity (central bank liquidity less reserve requirement plus net deposit facility) declining from around €800 billion in spring to around €620 billion at the end of the year. A new development was that excess liquidity flowed not only into the deposit facility, but – as a result of the zero interest rate on the deposit facility being applied for the first time – also led to a high build-up of excess reserves on central bank accounts in the aftermath of the interest rate cut of mid-July. As in the preceding years, weekly fine-tuning operations were conducted to reabsorb the inflow of liquidity generated by the SMP purchases. A minor underbidding occurred only in the last absorption tender with a maturity covering the end of the year. The liquidity-absorbing fine-tuning operation usually carried out overnight at the end of the reserve period was cancelled for the first time in the reserve maintenance period ending in January 2012.

Strong demand for liquidity in the second three-year tender marked the first half of 2012

The high level of interest also shown in the second three-year tender – which likewise had the option of early repayment after one year – resulted in a net inflow of liquidity of €305 billion for all tenders (compared with €213 billion during the first three-year tender as at 22 December 2011). Together, these two exceptionally long tenders accounted for 90% of all tender operations. The volume of main refinancing operations rose towards the end of the first half of the year but was otherwise characterised, above all, by the temporary substitution of liquidity provision in the context of monetary policy refinancing operations by Emergency Liquidity Assistance (ELA) (mainly because the eligibility of some Greek banks for the Eurosystem's monetary policy operations had been restored following recapitalisation in the May-June 2012 maintenance period). This meant that demand for central bank liquidity in the refinancing operations remained elevated; the volume attained an all-time high of around €1,260 billion at the end of June 2012. Recourse to the deposit facility in the reserve maintenance periods of the first half of the year following the allotment of the second three-year tender stood at an average of around €770 billion, compared with approximately €450 billion at the start of the year. The fact that the demand for liquidity from autonomous factors increased (to €467 billion on 25 June 2012) was mainly attributable to higher general government

deposits. Some purchases were made under the SMP from January to 9 February 2012; however, the programme was on hold from mid-March to the end of December 2012 and the portfolio was largely marked by maturities and quarterly revaluations. This was the case all year for the first CBPP. By contrast, purchases were made under the Second Covered Bond Purchase Programme (CBPP2) until the beginning of October; balance sheet holdings rose by €13.3 billion to €16.4 billion. Despite the substantial excess liquidity, the unsecured overnight rate EONIA was lowered only slightly and was stable on the whole in the three periods from March to June between on average 0.33% and 0.36% and thus 64 bp to 67 bp below the main refinancing rate of 1.00%; the secured average overnight rate of GC Pooling (ECB Basket) was usually around 10 bp below EONIA and therefore often lower than the deposit facility rate of 0.25%. Upon allotment of the three-year tender, turnover in EONIA and especially also in the secured overnight money market at GC Pooling fell considerably, ie by around 30% in both segments. Bidder numbers for the main refinancing operation were down, too.

Change in banks' fulfilment behaviour due to zero interest on the deposit facility

The second half of the year, too, was characterised by the remarkable liquidity from the two three-year tenders (a total of around €1,019 billion was allotted), though the total volume of refinancing operations declined throughout the year. For example, main refinancing operations went down by one-half, from €180 billion at the beginning of the second half of the year to €90 billion at year-end, and the expiry of the last 12-month tender caused an outflow of €7.7 billion from the market. Despite the reduction, however, excess liquidity remained at a high level, which meant that overnight rates continued to be guided by the deposit facility rate. The interest rate cut with effect from 11 July caused the interbank overnight rate to fall again. On that date, banks started changing their fulfilment behaviour as – due to the zero interest rate on the deposit facility – it no longer mattered whether excess liquidity was located in central bank accounts or the deposit facility. Nevertheless, a significant number of banks maintained partial recourse to the deposit facility for internal reasons, leaving 40% of aggregated excess liquidity on average over the second half of the year in the deposit facility and 60% on current accounts; this practice varied across countries, however. The previous, well-known practice of frontloading to fulfil the reserve requirement was basically no longer relevant. Average recourse to the marginal lending facility fell to €1.6 billion in the second half of 2012, compared to an average of €2.3 billion in the first half of the year. The in some cases greater recourse towards the end of 2012 was linked to the restoration of the eligibility of Greek bonds as collateral from 21 December.

Short and longer-term money market rates

EONIA declined in the second half of the year following the one-off effect of the interest rate cut (-19 bp) from an average of 10 bp in the July-August maintenance period to as low as 6 bp at the end of the year, whereas the usual year-end rise occurred at the end of 2012. This meant that EONIA was more strongly guided by the deposit facility than in the first half of the year, reflecting, among other things, expectations of a further interest rate cut. The Eurosystem's strong intermediary function caused EONIA turnover to contract from an already low average of €27 billion in the first half to €22 billion in the second half of the year. By contrast, secured overnight

turnover on the Euro GC Pooling electronic trading platform rose from €6.9 billion to €9.3 billion on average. On the whole, EONIA was very stable; volatility at 3 bp or 2 bp (for the second half of the year) – measured as the standard deviation of the spread between EONIA and the main refinancing rate – was very low.

The longer-term money market rates have been steadily declining since the beginning of the year; a larger fall occurred only on the day of the interest rate decision (-9 bp to 0.550% for the three-month EURIBOR). At year-end, the three-month EURIBOR stood at 0.187%, 116 bp lower than at the start of the year. During the course of the year, the EURIBOR/EUREPO spread for three-month money narrowed significantly by almost 100 bp to 20 bp. Although this suggests a decline in the risks of unsecured lending between what are known as prime banks (to which the EURIBOR definition refers), the segmentation of the interbank market has remained essentially unchanged owing to excess liquidity largely being accumulated by a group of banks and countries not reliant on funding through the Eurosystem.

Development of the factors determining bank liquidity

In 2012, credit institutions' regular liquidity needs averaged €483.9 billion overall. This included the minimum reserve requirement of €110.7 billion (previous year: €208.3 billion) and the autonomous factors of €373.2 billion (previous year: €261.5 billion). The significant increase in demand of €111.8 billion in total arising from autonomous factors is partly due to higher general government deposits which caused the resulting liquidity needs to grow by a very considerable €49.0 billion (see table below). A similar increase in the demand for liquidity to that of the preceding year was brought about by the volume of banknotes in circulation, which was up by €39.8 billion. As a result, demand for cash continued to increase remarkably, though from September 2012 the economic slowdown caused it to

Factors determining bank liquidity in the euro area

€ billion; year-on-year changes in annual average values

Item	2011	2012
I Provision (+) or absorption (–) of central bank balances owing to changes in autonomous factors		
Banknotes in circulation (increase: –)	– 38.7	– 39.8
Government deposits with the Eurosystem (increase: –)	+ 37.6	– 49.0
Net foreign assets[1]	+ 75.9	+ 121.1
Other factors[1]	+ 11.8	– 144.1
Total	+ 86.6	– 111.8
II Monetary policy operations of the Eurosystem		
Open market operations		
Main refinancing operations	+ 27.6	– 61.6
Longer-term refinancing operations	– 171.1	+ 652.8
Other operations	+ 9.3	+ 9.0
Standing facilities		
Marginal lending facility	+ 1.2	+ 0.1
Deposit facility (increase: –)	+ 43.8	– 391.6
Total	– 89.1	+ 208.6
III Change in credit institutions' credit balances (I + II)	– 2.5	+ 96.8
IV Change in the minimum reserve requirement (increase: –)	+ 3.6	+ 97.6

1 Including liquidity-neutral valuation adjustments at the end of the quarter.
Deutsche Bundesbank

weaken in many countries, Germany excepted. On 28 December 2012, the volume of banknotes in circulation reached €913.7 billion, its post-euro-introduction peak. The average growth rate in 2012 of banknotes in circulation in the euro area was, at 4.7%, almost as high as a year earlier (4.8%). Taken together, the changes in net foreign assets and in the other factors caused a net outflow of €23.0 billion from the market.

Against the backdrop of the three-year tenders and an overall increase in autonomous factors, main and longer-term refinancing operations rose by a substantial €591.2 billion on an annual average (previous year: -€143.5 billion); the other operations (fine-tuning operations including SMP liquidity-absorbing tenders and purchase programmes) increased by €9.0 billion on balance. Recourse to the deposit facility, which rapidly surged upwards just after the second three-year tender had been allotted but went back down in the second half of the year owing to the zero interest rate on the deposit facility, increased by an annual average of €391.6 billion to €493.7 billion. On average, recourse to the marginal lending facility stood at €1,941 million, deviating only slightly from the previous year (€1,872 million).

Credit institutions' average central bank balances in 2012 were €96.8 billion up on the year, reflecting the zero interest rate on the deposit facility. The year-on-year reserve requirement was down in January 2012 by a strong 46.8% as a result of the reduction in the reserve ratio from 2% to 1%. There was an annual average increase of 1.7% in the reserve requirement (previous year: -1.7%) after adjustment for the special factor that was the downward revision of the reserve ratio.

strong demand totalling more than €1 trillion in these two operations, excess liquidity also went up to a record level (see Chart 46 as well as the box entitled "Money market management and liquidity needs").

After holding out the prospect of a new monetary policy bond purchase programme, the Governing Council of the ECB made a decision in September 2012 on the modalities for undertaking outright monetary transactions (OMTs) in the secondary markets for sovereign bonds in the euro area. This programme is designed to safeguard an orderly transmission and the singleness of monetary policy. Government bonds of a euro-area member state can be purchased under this programme only subject to the requirement that this member state is undergoing an adjustment programme and fully complies with the respective associated conditionality. So far, no sovereign bonds have been purchased as part of this new programme.

The existing Securities Markets Programme (SMP) was officially discontinued with the announcement of the OMTs. In 2012, it was only in the first quarter that significant purchases of securities were made under the SMP on a comparatively small scale.

Furthermore, the Second Covered Bond Purchase Programme (CBPP2) was ended as scheduled on 31 October 2012. The programme volume was well below what was originally envisaged.

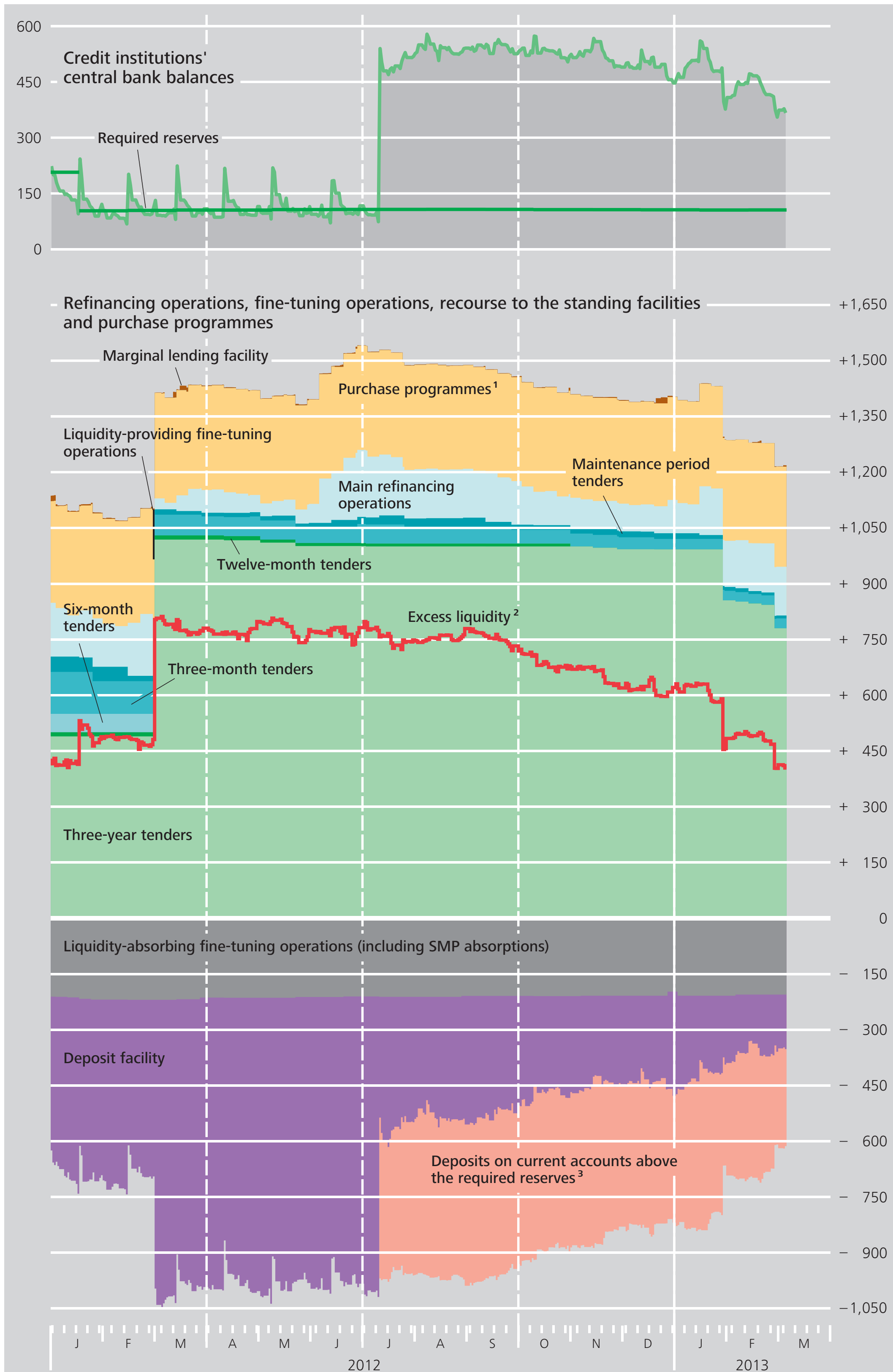
Moreover, the eligibility criteria for collateral which can be used for monetary policy refinancing operations have been relaxed (see box on pages 47 and 48). All non-standard monetary policy measures are temporary in character and are therefore not to be regarded as a permanent part of the monetary policy toolkit.

The Governing Council's interest rate policy decisions and its decisions on non-standard mon-

Liquidity management of the Eurosystem

Chart 11

€ billion, daily data



1 Securities Markets Programme (SMP), Covered Bond Purchase Programme (CBPP), Second Covered Bond Purchase Programme (CBPP2). 2 Central bank balances minus required reserves plus deposit facility minus marginal lending facility. 3 Shown only from 11 July 2012.

Deutsche Bundesbank

Refinancing and eligible assets

In October 2011, the Governing Council of the ECB announced its decision to continue liquidity-providing monetary policy operations as fixed-rate tenders with full allotment from October 2011 to July 2012. This measure was extended in June 2012 to beyond the end of 2012.

The provision of liquidity to counterparties by means of reverse transactions was dominated by the two operations with a three-year maturity and the option of early repayment in 2012. The first operation was conducted as early as December 2011. After conducting the second longer-term refinancing operation with a maturity of 36 months at the beginning of March 2012, longer-term funding, at some €1,019 billon, rose to over 97% of the Eurosystem's total refinancing volume, standing at 92% at the end of the year. Demand for liquidity via the regular main refinancing operations fell accordingly from March onwards to €93.6 billion on average. Demand for liquidity in refinancing operations with a maturity of one reserve maintenance period was also quite subdued. On an annual average, only 26 bidders in the Eurosystem took part in these refinancing operations with an average bid of €17.8 billion, with no German bidders participating in the last seven of the 12 operations. The 12 regular longer-term refinancing operations with a maturity of three months provided €14.4 billion per tender on average, spread across 30 to 55 bidders in the Eurosystem.

Securities purchases under the Securities Markets Programme (SMP) were conducted in January and February 2012. However, the resulting liquidity will be sterilised. The SMP was terminated following the Governing Council's announcement in September 2012 of possible Outright Monetary Transactions (OMTs) in the future. Securities with a total value of €16.4 billion were purchased under the Covered Bonds Purchase Programme 2 (CBPP2) before it was discontinued on 31 October 2012, considerably less than the originally allocated volume of €40 billion (both figures at nominal values of the purchases). To a large extent, this can be attributed to the decline in new issuances of covered bank bonds and the increased private demand for these during the refinancing operations with a three-year maturity.

The sustained high level of excess liquidity brought about by the full allotment policy led to a high rate of participation in the tenders carried out to sterilise the liquidity provided through the SMP. On average, 74 bidders took part in the SMP liquidity-absorbing operations, with around 28 bidders, more than one-third of the participants, coming from Germany. In 51 operations, the desired volume was sterilised in each case. It was only in the last tender of the year that the outstanding SMP volume (€208.5 billion) was not fully sterilised, as the volume bid amounted to only €197.6 billion. Further to the Governing Council's decision of 8 December 2011, no one-day liquidity-absorbing operations were carried out on the last day of the reserve maintenance periods in 2012.

Cutting the key interest rate from 1.00% to 0.75% in July 2012 along with lowering the deposit facility from 0.25% to 0.00% led to a marked reduction in recourse to the deposit facility in favour of holding surplus reserves, which likewise do not yield any interest. Average recourse to the facility from early 2012 up to the cut in interest

rates amounted to €681.6 billion for the Eurosystem as a whole and €228.6 billion for credit institutions from Germany, but fell, on average, to €286.3 billion in the Eurosystem as a whole and €88.4 billion for German banks in the second half of the year. Recourse to the marginal lending facility in the Eurosystem as a whole averaged €1.9 billion in 2012.

As in the previous year, the Eurosystem also carried out tenders to provide liquidity in US dollar. German bank involvement was low, with a maximum of 12 bidders per operation, bidding US$388.8 million on average in tenders with a one-week maturity and US$2.3 billion in tenders with a three-month maturity. Further to the Governing Council's decision of 13 December 2012, US dollar operations will also be conducted in 2013. On a related note, the mutual swap agreements with the Bank of Canada, the Bank of England, the Bank of Japan and the Swiss National Bank will be extended until the beginning of 2014 to ensure that liquidity can be provided in the relevant currencies, if needed.

The total value of collateral submitted to the Bundesbank was down slightly on the year from €630 billion to €628 billion (end-of-year levels at market values). Of this, €197 billion was held in custody in another member state and was therefore used on a cross-border basis. While the volume of fixed-term deposits held at the Bundesbank increased to €130 billion (2011: €86 billion), the volume of other eligible assets submitted fell to €498 billion (2011: €544 billion).

The expansion of the Eurosystem's collateral framework approved by the Governing Council in 2012 was used only to a very minor extent by the counterparties of the Bundesbank. The most significant specifications include the lowering of the rating threshold for certain asset-backed securities (ABS) and the acceptance of certain assets denominated in foreign currency (USD, JPY and GBP). The Bundesbank will continue to refrain from the option of introducing specific eligibility criteria for credit claims at national central bank level, agreed at the Governing Council meeting of 8 December 2011.

At the end of 2012, marketable securities accounted for 67% of assets submitted to the Bundesbank. The percentage of uncovered bank bonds fell from 22% to 17%, while government bonds went up from 16% to 18%. Pfandbriefe remained unchanged at 17%, while the share of ABS decreased from almost 7% to 5%. At 10%, the share of other marketable assets remained unchanged on the year. Credit claims and fixed-term deposits accounted for 12% and 21%, respectively, of the total value of collateral.

Money market rates shaped by high levels of excess liquidity

etary policy measures against the backdrop of the financial and sovereign debt crisis also had an impact on money market rates. Unsecured rates were declining sharply throughout 2012. At the end of the year, the survey-based (EURIBOR) rate for unsecured three-month money was barely just 0.2%, having stood at more than 1.3% at the turn of 2011-12 in a strained financial market setting. Besides developments in policy rates, the fall in unsecured money market rates was due chiefly to the smaller interest rate differential between the unsecured EURIBOR rates and secured EUREPO rates (depo-repo spreads) reported by the banks, owing not least to very high excess liquidity. By the end of 2012, this spread in the three-month segment had gone down significantly by 100 basis points to no more than 20 basis points. Given the continuing heavy segmentation of the interbank money market, the depo-repo spread can be interpreted as a representative risk premium only with a great deal of qualification.

3 Decoupling of monetary and credit growth

Monetary growth continues to decouple from credit growth

Monetary growth began to pick up in spring 2010 and, following a temporary lull in the second half of 2011, continued its recovery on balance during the year under review, although its monthly movements were marked by heightened volatility at times. Whereas all components played a part in the increase in M3 early in the year, its growth was driven almost exclusively by M1 from mid-year onwards. On balance, the 12-month rate of the broad monetary aggregate M3 accelerated from 1.5% at the end of 2011 to 3.3% at the end of the reporting year. At the same time, however, banks' lending to private non-banks showed a significant fall during the course of the year. A similar pattern of monetary growth becoming decoupled from lending was last observed between 2001 and 2003, when monetary growth had been driven by the money-holding sector making substantial portfolio shifts into M3 against a backdrop of marked uncertainty.

Development of M3 marked by portfolio shifts

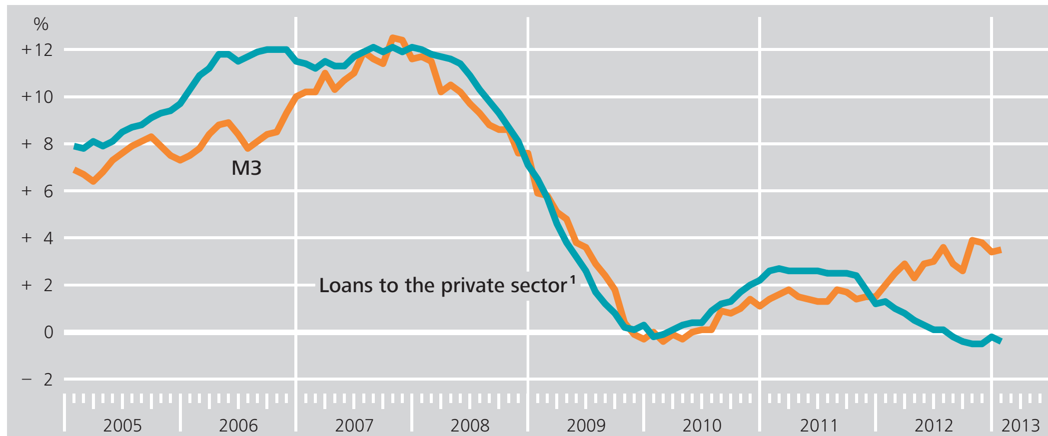
In the reporting year, too, private non-banks' portfolio shifts into sight deposits and short-term saving deposits shaped the ongoing recovery shown by M3. This successively raised the growth contribution of M1 and, taking the year as a whole, was almost entirely responsible for the increase in M3. This development reflected the money-holding sector's growing preference for highly liquid deposits, which was encouraged by the high degree of uncertainty and the low-interest rate environment. The marked build-up of sight deposits by nearly all sectors led to an increase in the annual growth rate of M1 from 1.8% at the end of 2011 to 6.2% at the end of the reporting year.

By contrast, the second and third quarters saw a significant slowdown of growth in other shorter-term bank deposits (M2-M1), which, during the winter months, were still benefiting from having more attractive interest rates than longer-term investments. Outflows particularly affected short-term time deposits, which fell out of favour across all investor groups, and were especially pronounced in the case of other financial institutions and non-financial corporations. On the other hand, savings deposits, which are traditionally held by households, attracted inflows of capital in every quarter of the year, especially in countries where this type of investment enjoys preferential tax treatment or is remunerated at relatively attractive rates. Owing to the continuous build-up of short-term saving deposits, the annual growth rate of (M2-M1), which was 2.1% at the end of the reporting year, was slightly higher, in fact, than in 2011 (1.9%).

As in the previous year, marketable instruments (M3-M2), which include repurchase agreements (repos), short-term bank debt securities and money market fund shares/units, were reduced overall in 2012. Although these types of investment were still showing an increase in the first quarter of 2012, growth was almost

Growth of M3 and loans to the private sector in the euro area Chart 12

Seasonally adjusted, annual rate of change



1 From 2010, adjusted for loan sales and securitisations.
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entirely due to investors being prompted to shift funds into short-term bank debt securities by the extensive provision of central bank liquidity in the context of the Eurosystem's two three-year refinancing operations. Demand for this type of investment fell off more and more in the following quarters. Money market fund shares/units were still showing slight growth at the start of the year; as the year progressed, the interest rate environment meant that outflows likewise played a dominant role. By contrast, there was a decline in the third subcomponent (repos), particularly in the first half of the year. The annual growth rate of (M3-M2) thus fell overall from -1.1% in 2011 to -7.6% in 2012.

Repos with central counterparties excluded from M3 since August 2012

When considering developments in marketable instruments, it should be noted that repos (and reverse repos) concluded by monetary financial institutions (MFIs) with central counterparties have been excluded from the calculation of M3 and its counterparts since August 2012. This is because these agreements are typically secured money market transactions between banks, in which the central counterparty merely acts as an intermediary. The majority of these transactions do not, therefore, represent an inflow of capital for the money-holding sector and are thus irrelevant for monetary analysis purposes. It was necessary to adjust the M3 data for such repos as they had latterly had a considerable impact on short-term monetary and credit developments. The affected time series were revised back to June 2010.[2]

Subdued total lending and sharp growth in credit to general government

Of the counterparts of M3, growth in total lending by MFIs to domestic non-banks in the reporting year, at 0.4%, was down on the year (0.9%). The sole stimulus to growth was provided by credit to general government, the 12-month rate of which accelerated from 3.2% at the end of 2011 to 5.8% at the end of 2012. This increase was due to substantial government bond purchases by commercial banks, which were connected with the provision of liquidity by the three-year tenders. The securities purchases by the Eurosystem under the SMP, on the other hand, virtually ground to a halt at the beginning of the reporting year. In contrast to securitised lending, credit extended by the banking sector to general government declined as the year progressed; at the end of 2012, its annual growth rate stood at -0.4%.

Loans to the private sector decline during 2012

Unlike credit to general government, both securitised and unsecuritised loans to the private sector declined during the reporting period.

2 For details, see European Central Bank, The adjustment of monetary statistics for repurchase agreement transactions with central counterparties, Monthly Bulletin, September 2012, pp 28-31.

Securitised lending (excluding shares) dropped sharply, thus accelerating the negative trend since the end of 2009. Its annual growth rate of -4.9% at the end of 2012 was almost a further 3½ percentage points down on the negative figure posted in the previous year. Loans to the private sector also declined on balance in 2012. At -0.2%, the growth rate of loans to the private sector (adjusted for loan sales and securitisation) was in negative territory at the end of a calendar year for the first time since the introduction of the euro. This was caused by net redemptions of loans to non-financial corporations, only two-thirds of which were offset by growth in lending to households and financial corporations. As with the data on the monetary aggregate, it should be noted that loans to financial corporations were also adjusted mid-year for (reverse) repos with central counterparties (see remarks on page 50).

At 0.7%, the annual growth rate of loans to households remained in positive territory, but it was down to almost one-third of the previous year's figure. As in 2011, the increase in this subaggregate was confined exclusively to the core countries of the euro area. This increase, in turn, was driven by loans for house purchase, although their growth, at 1.3%, was considerably smaller than in 2011. By contrast, consumer credit posted a net decline, as it had in the previous year, while other loans to households also fell somewhat.

Monetary developments in the euro area

Table 3

Changes in the course of the year[1]

Item	2011	2012
	as a percentage	
I Growth of the monetary aggregates		
M1[2]	1.8	6.2
M2[3]	1.8	4.4
M3[4]	1.5	3.3
	€ billion	
II Money stock and its counterparts		
M3 (=1+2–3–4–5)	143.9	315.9
Currency in circulation and overnight deposits	82.7	297.9
Other short-term deposits	71.3	81.3
Marketable instruments	– 10.1	– 63.2
Balance sheet counterparts		
1 Total credit to non-MFIs in the euro area	145.0	69.9
Credit to general government	94.8	181.3
Credit to private-sector non-MFIs in the euro area[5]	50.2	– 111.4
2 Net claims on non-euro-area residents	162.7	98.8
3 Central government deposits	– 1.5	– 4.3
4 Longer-term financial liabilities to other non-MFIs in the euro area	210.9	– 125.2
5 Other counterparts of M3[6]	45.6	17.7

1 Seasonally adjusted. 2 Currency in circulation and overnight deposits held by euro-area residents with MFIs in the euro area. 3 M1 plus other short-term deposits held by euro-area residents with MFIs in the euro area (deposits with an agreed maturity of up to two years and deposits redeemable at up to three months' notice). 4 M2 plus marketable instruments held by euro-area residents (repurchase agreements concluded by MFIs with non-MFIs in the euro area, money market fund shares/units and debt securities issued with a maturity of up to two years by MFIs in the euro area). 5 Adjusted for loan sales and securitisation. 6 Calculated as a residual.
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Lending to non-financial corporations receding

Loans to non-financial corporations picked up slightly overall in the short-term segment although, as in the previous year, this development was probably due in part to enterprises operating in the countries most affected by the economic slowdown making greater use of bank loans to finance their working capital. Nevertheless, the extremely modest increase in the short-term maturity segment could do nothing to offset the marked persistent declines throughout the year in the medium and longer-term maturity segments. Loans to non-financial corporations saw their 12-month rate drop from +1.4% in 2011 to -1.3% overall during 2012. This took place against the backdrop of very mixed developments across the individual euro-area member countries. Whereas countries with consistently high credit ratings tended to experience credit growth, the countries hardest hit by the sovereign debt crisis saw a faster reduction in loans. Lending to the private sector in these countries is currently being dampened not only by weak economic activity but also by major structural adjustment processes.

Marked decline in monetary capital

Besides securitised lending to general government, the distinct reduction in monetary capital accounted for the majority of monetary

growth. The 12-month rate of longer-term financial liabilities fell into negative territory as the year progressed, the first time it had done so since the introduction of the euro, closing the year at -1.6%. The decline in monetary capital was chiefly attributable to a clear drop in long-term time deposits and long-term bank debt securities, which were linked to portfolio shifts into more liquid forms of investment. Only capital and reserves, another component of monetary capital, posted substantial inflows, which may have been associated with the stricter capital requirements (Basel III) applicable to the banking sector.

Perceptible boost to monetary growth from net external position

In the year under review, as in 2011, the MFI sector's transactions with foreign counterparties also gave a perceptible boost to monetary growth. The renewed rise in euro-area banks' net claims on non-euro-area residents resulted from net inflows from the middle of the year onwards, the pace of which increased again significantly in the final quarter of the year. This development reflected not only growing current account surpluses but also a reversal of the euro area's net capital exports in portfolio investment vis-à-vis non-euro-area counterparties that persisted up to the middle of 2012. Non-resident investors, in particular, acquired securities issued by domestic non-banks to a greater extent in the second half of the year.

Underlying monetary dynamics do not signal risks to price stability

All things considered, the underlying monetary dynamics – ie those components of monetary growth which are ultimately relevant to inflation – accelerated somewhat in the first nine months of the year under review, but remain muted overall. From a monetary perspective, this means that there are no pronounced risks to price stability in the euro area over the medium term.

III Economic trends in Germany

1 Clear slowdown in economic activity

German economy feeling the impact of the financial crisis

German business activity lost momentum in 2012. Real GDP rose only moderately by 0.7% in the year under review after recording very strong growth rates of 4¼% and 3% in 2010 and 2011 respectively. Economic expansion therefore remained below the current potential output growth rate, which is estimated to be around 1¼%. Nevertheless, macroeconomic activity remained within the corridor of normal capacity utilisation, and enterprises largely reported a positive or at least satisfactory business situation. The slowdown in economic growth was due, for one thing, to the end of the catching-up process following the severe recession in 2008-09 and to the associated return to a normal pace of economic expansion. It was compounded, in particular, by the difficult international setting. This comprises both considerable uncertainty generated by the debt crises and the severe adjustment recessions in parts of the euro area. Despite its underlying structural robustness, the German economy was not immune to these adverse factors owing to its high degree of openness. Corporate investment, in particular, was negatively affected via the confidence channel. Housing construction, on the other hand, benefited from the prevailing uncertainty. Private consumption continued its subdued upward movement. It was bolstered by further rising employment and sharply increasing actual earnings. The domestic upward thrust on prices intensified, whereas external pressures weakened. The rise in consumer prices, which was chiefly driven by energy and food, tailed off somewhat.

German industry, which had already recovered to its pre-crisis level in 2011, was unable to post

Key economic variables in Germany Table 4

Annual percentage change

Item	2009	2010	2011	2012
Growth (real)[1]				
Private consumption	+ 0.1	+ 0.9	+ 1.7	+ 0.6
Government consumption	+ 3.0	+ 1.7	+ 1.0	+ 1.4
Machinery and equipment	− 22.5	+ 10.3	+ 7.0	− 4.8
Buildings	− 3.2	+ 3.2	+ 5.8	− 1.5
Other investment	− 2.9	+ 3.3	+ 3.9	+ 3.2
Domestic demand	− 2.5	+ 2.6	+ 2.6	− 0.4
Exports[2]	− 12.8	+ 13.7	+ 7.8	+ 3.7
Imports[2]	− 8.0	+ 11.1	+ 7.4	+ 1.8
Gross domestic product	− 5.1	+ 4.2	+ 3.0	+ 0.7
Contribution to GDP growth in percentage points				
Domestic demand (excluding inventories)	− 1.5	+ 1.9	+ 2.2	+ 0.2
Changes in inventories	− 0.7	+ 0.6	+ 0.2	− 0.5
Net exports	− 2.9	+ 1.7	+ 0.6	+ 1.0
Employment				
Employed[3]	+ 0.1	+ 0.6	+ 1.4	+ 1.1
Average working time per employed person	− 2.7	+ 1.7	− 0.0	− 0.7
Total number of hours worked	− 2.7	+ 2.3	+ 1.4	+ 0.4
Unemployed (in thousands)[4]	3,415	3,238	2,976	2,897
as a percentage of the civilian labour force	8.1	7.7	7.1	6.8
Prices				
Consumer prices	+ 0.3	+ 1.1	+ 2.1	+ 2.0
Producer prices of industrial products[5]	− 4.2	+ 1.6	+ 5.7	+ 2.1
Construction prices[6]	+ 1.2	+ 0.9	+ 2.9	+ 2.8
Import prices	− 8.6	+ 7.8	+ 8.0	+ 2.1
Export prices	− 2.2	+ 3.4	+ 3.7	+ 1.7
Terms of trade	+ 6.8	− 4.0	− 4.0	− 0.4
GDP deflator	+ 1.2	+ 0.9	+ 0.8	+ 1.3
Productivity and labour costs				
GDP per hour worked by employed persons[1]	− 2.5	+ 1.8	+ 1.6	+ 0.3
Compensation per hour worked by employees[3]	+ 3.5	+ 0.3	+ 2.9	+ 3.1
Labour costs per unit of value added in real terms in the economy as a whole[7]	+ 6.2	− 1.5	+ 1.2	+ 2.8

Sources: Federal Statistical Office, Federal Employment Agency. **1** At previous year's prices, chain-linked (2005 = 100). **2** Balance of transactions in goods and services with the rest of the world. **3** Domestic concept. **4** As defined by the Federal Employment Agency. **5** Domestic sales. **6** Calculated by the Bundesbank on the basis of Federal Statistical Office data. **7** Gross compensation generated in Germany per hour worked by employees divided by real GDP per hour worked by employed persons.
Deutsche Bundesbank

Slowdown above all in industry

a further increase in output in 2012. It even fell back below its pre-crisis level again in the second half of the year, owing mostly to subdued foreign demand and weak domestic investment. The slowdown in industrial activity had a knock-on effect on numerous service sectors. Thus growth in value added in the trade, transport, and hotel and restaurant sectors was noticeably more muted. The business services sector also felt the impact of the slowdown, but still fared quite well compared with other sectors. In the construction sector, the stimuli generated by housing demand contrasted with dampening effects from commercial and public construction contracts. On balance, the sector was unable to match the level of activity recorded in 2011. The public services sector continued to grow at a moderate pace.

Mixed export picture

Exports of goods and services grew by 3.7% in 2012, which was much slower than in 2011 (+7.8%).[3] This was due primarily to the marked decline in deliveries to the euro area, which ac-

3 It should be noted that the national accounts, unlike the foreign trade statistics, include non-cross-border transactions between residents and non-residents in exports and imports. This also includes electricity and gas transactions (with the point of delivery in Germany or abroad), the volume of which has expanded considerably of late. However, the finding that exports increased significantly is also supported by the foreign trade statistics.

count for around two-fifths of German exports. Considerable falls were recorded above all in Italy, Spain, Portugal and Greece. There was, however, a further sharp rise in exports to non-euro-area countries despite the deceleration in global economic activity over the course of the year. Trade with customers in the USA flourished, in particular. Exports to the OPEC countries as well as to Japan, the United Kingdom, Russia and the South-East Asian emerging market economies also grew exceptionally vigorously. By contrast, exports to China lost considerable momentum after recording rapid growth in the two preceding years. Furthermore, exports to central and east European EU member states grew only moderately.

Exports of motor vehicles and motorcycles as well as machinery made in Germany were still much in demand in 2012, despite recording only moderate turnover growth. Manufacturers of computers, electronic and optical products, on the other hand, were able to significantly raise their foreign sales. Deliveries of aircraft and spacecraft to the rest of the world rose particularly sharply. Foreign sales of intermediate goods expanded only marginally on the whole, whereas exports of chemical and pharmaceutical products performed better. Exports of consumer goods, which make up just one-sixth of overall German exports, likewise showed strong growth.

Sharp fall in corporate investment

Investment in machinery and equipment in 2012 showed a perceptible year-on-year decline of 4.8%. In particular, enterprises' propensity to invest was considerably depressed by the heightened uncertainty generated by the euro-area debt crisis, though weaker domestic and foreign demand also played a role. Given the fall-off in capacity utilisation and the downward revision of sales prospects, many industrial firms, in particular, saw little reason to stock up their production capacities. It is also possible, however, that investment projects have merely been put on hold for the time being and might be implemented relatively quickly once sentiment picks up again. The contraction in corporate investment also affected new buildings.

Residential construction robust

By contrast, expenditure on housing construction rose again in 2012 by 0.9% from an elevated level. Demand continued to be supported by the favourable financing conditions and the optimistic income expectations. The shift towards the construction of new apartments may be seen as an indication that buy-to-let purchases have also contributed to housing demand. Conversely, a significant rebound effect was observed in public construction investment projects following the expiry of the economic stimulus packages initiated during the recession in late 2008 and early 2009.

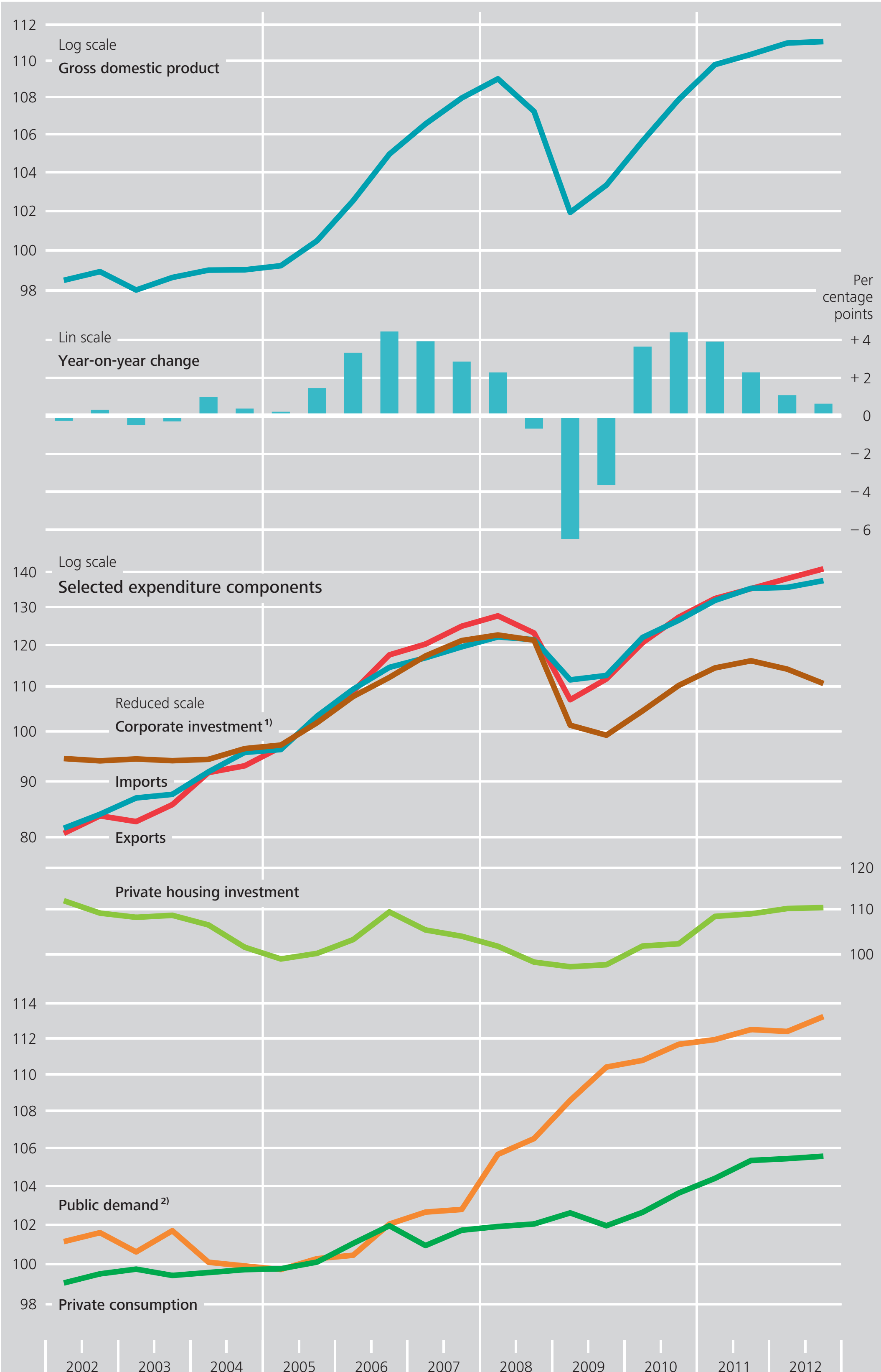
Growing private consumption

Private consumption expenditure rose by 0.6% in 2012 in price-adjusted terms. Compared with the deterioration in business confidence, household consumption was barely dented by the euro-area sovereign debt crisis and the resulting uncertainty. Private consumption benefited from the greater spending scope on the back of the improved labour market situation and rising actual earnings, which outweighed the inflation-induced losses in purchasing power. All in all, private consumption grew somewhat faster than disposable income, with the result that the saving ratio fell slightly to 10.3%. This is consistent with a high propensity to purchase and optimistic expectations regarding income prospects. The very low interest on credit balances might also have played a role, however.

Import growth moderate owing to weak overall demand

Imports recorded only moderate growth of 1.8% in 2012.[4] This was attributable above all to sluggish domestic investment. It was reinforced by firms' more cautious inventory management. By contrast, positive stimuli were generated by the growth in exports owing to the international interconnectedness of production chains. In regional terms, imports of goods from euro-area countries fared some-

4 The rise was due largely to trade in electricity and gas with the point of delivery in Germany.



1 Private investment in machinery, equipment and other plant as well as in commercial construction. **2** Government consumption and gross public investment.

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what better than those from non-euro-area countries. Germany therefore once again contributed towards reducing external imbalances within the euro area. Nevertheless, there was a significant increase in the foreign trade surplus on the whole in the context of a merely slight deterioration in the terms of trade. As a result, Germany's current account surplus concurrently went up by 0.8 percentage point to 7.0% of GDP.

Further sharp rise in employment

2012 saw a further sharp rise in employment. The number of persons in work in Germany went up by 449,000, or 1.1%. As in 2011, it was mainly regular jobs subject to social security contributions that were created. The number of persons employed under such regular employment contracts in the reporting period went up by 531,000, or 1.9%, on the year. The largest numerical increase occurred in business-related services (excluding temporary agency hirings), manufacturing, and in health and social services. This contrasted with a decline in temporary hiring, which is particularly sensitive to cyclical swings. Other forms of employment, especially low-paid part-time employment and one-euro workfare jobs, showed a further decrease, and cyclically induced short-time work was reduced further on an annual average. The number of self-employed persons remained roughly at the same level as in 2011. The total number of hours worked went up only marginally in 2012 owing to a reduction in the average number of hours worked per person. This was due primarily to the depletion of overtime hours and working time accounts.

Labour supply boosted by immigration

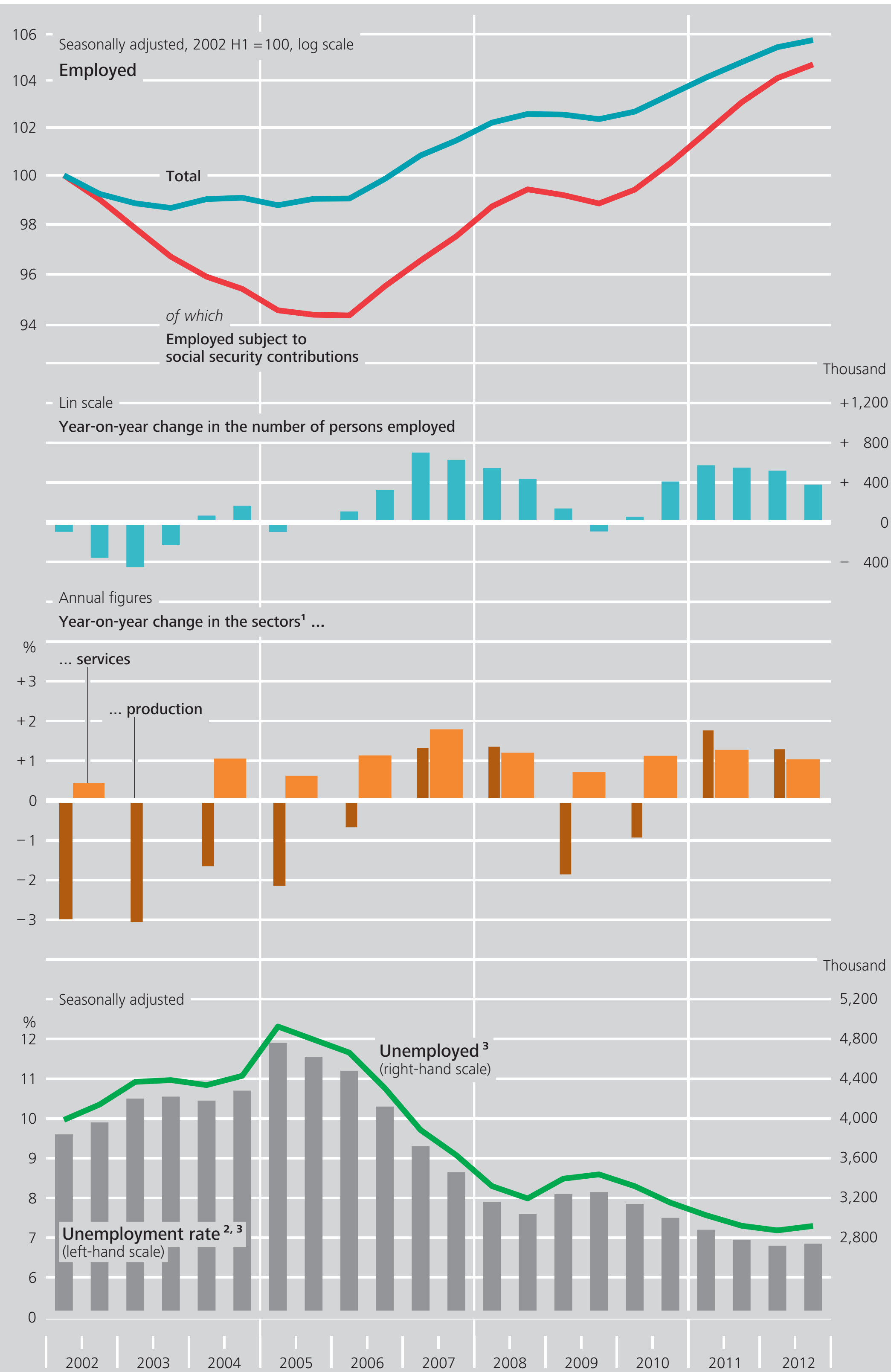
The sharp rise in employment in 2012 was fuelled to a large extent by immigration. While more people immigrated to Germany than in 2011, considerably fewer people left the country. On the whole, the inward migration balance of around 350,000 persons is likely to have clearly exceeded the already very high figure of 279,000 recorded in 2011. According to the information available to date, the bulk (roughly one-third) of net migration was accounted for by the eight central and east European EU member states (EU 8), the nationals of which were granted full labour mobility on 1 May 2011. The influx of Romanian and Bulgarian workers, who accounted for a share of around one-fifth of net new immigrants, was substantial, despite the fact that they have still not been granted complete freedom of movement within the EU. Furthermore, there was an increase in net immigration from Greece, Italy, Spain and Portugal owing to the difficult economic situation in these countries, which probably now likewise account for one-fifth of total inward migration.

Slight fall in unemployment

Unemployment declined further in 2012. It fell by 79,000 to 2.90 million, or 6.8% of the total labour force. A slight rise in unemployment was, however, evident over the course of the year. Underemployment, which includes persons taking part in labour market policy measures in addition to the jobless, fell more sharply than registered unemployment on an annual average. This was due mainly to a significant reduction in the incentives to become self-employed and the scaling-back of work opportunities combining social welfare benefits and top-up earnings (one-euro workfare jobs).

Sharp rise in actual earnings

Collectively negotiated pay rose by 2.5% in 2012. This accelerated rise on the previous year reflects the positive situation in the economy and on the labour market. Wage bargainers mostly agreed permanent percentage increases in pay. One-off lump sum payments played only a negligible role. While negotiators in the industrial sectors tended to opt for larger rises with a shorter duration, the services sectors principally agreed moderate incremental wage increases spanning longer contractual periods. Wage drift was virtually neutral as a large number of bonus payments were made – just as in 2011. Given that the number of hours worked per employed person went down slightly, actual earnings – calculated on an hourly basis – rose by 3.3% in 2012, and thus somewhat faster than in 2011. Yet unit labour costs went up by 2.8% in 2012, and thus more than twice as sharply as in the previous year, on account



1 Column width proportional to the percentage of all persons employed. **2** Unemployed as a percentage of the civilian labour force. **3** As defined by the Federal Employment Agency. From January 2004, unemployed excluding participants in aptitude testing and training schemes. From January 2005, including recipients of social assistance fit for work. From May 2009, excluding persons newly registered on the books of private employment agencies.

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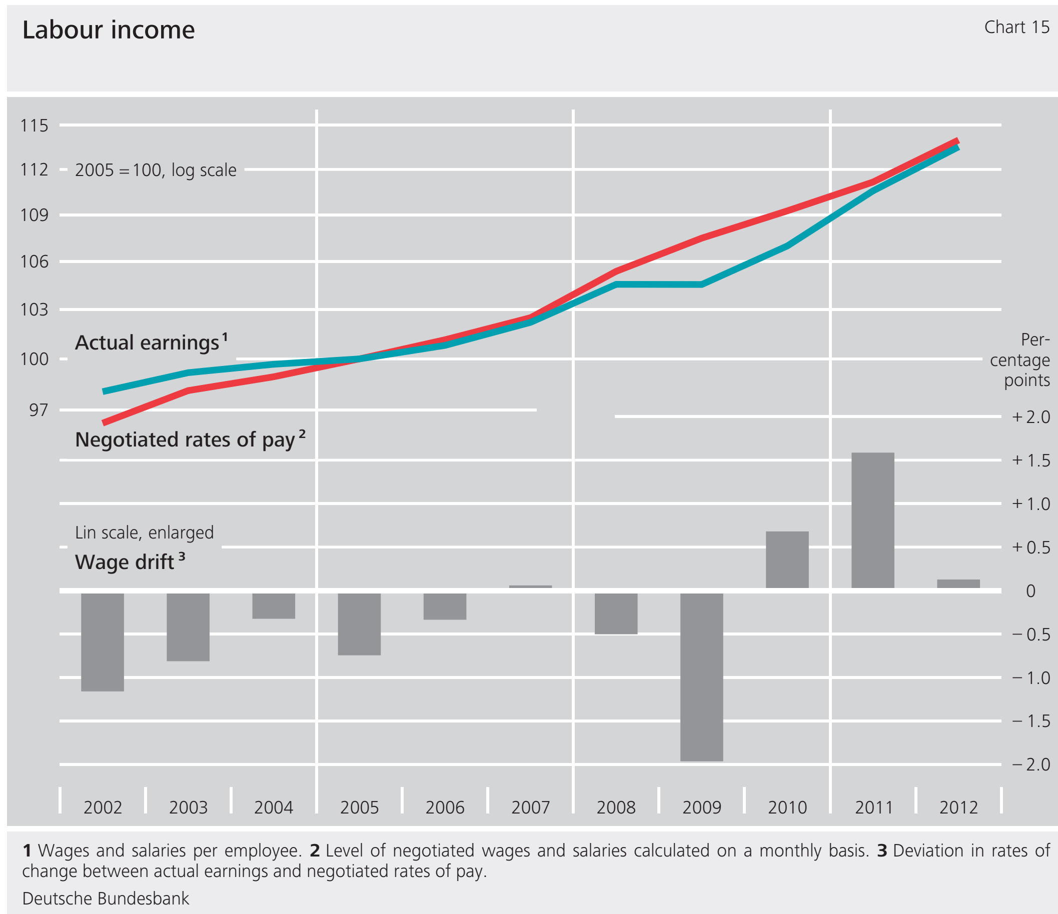

1 Wages and salaries per employee. 2 Level of negotiated wages and salaries calculated on a monthly basis. 3 Deviation in rates of change between actual earnings and negotiated rates of pay.
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of the cyclical decline in productivity. Profit margins consequently narrowed significantly in the year under review despite a marked 1.3% increase in value added in the economy as a whole.

Slight easing of price pressures

No further significant easing of price pressures occurred in 2012. Although annual average price increases were lower than in 2011 across all stages of the economy, this was due largely to the fact that in 2011 average prices were still being strongly influenced by the rebound in activity following the economic crisis of 2008-09. Whereas crude oil quotations barely rose further in 2012 on an annual average, in contrast to the immediately preceding years, the euro depreciated markedly against the US dollar. This exerted upward pressure on energy prices across all stages of the economy. Price rises were particularly marked in the case of energy imports. But since the prices of other imported goods rose only moderately, the overall rise in import prices remained within fairly narrow bounds. Much the same was true of domestic industrial prices. Although the industrial sectors were able to raise their export sales prices, the smaller share of energy in German exports meant that the increase was not as high as for import prices, which consequently resulted in a slight deterioration in the terms of trade. Consumer prices were inflated not only by the persistent strong growth in the cost of energy – which, however, was only about half as strong as in 2011 – but also by a marked climb in food prices. The prices of other goods and services also became distinctly more expensive. Annual average consumer prices rose by 2.0% according to the national Consumer Price Index (CPI) and by 2.1% according to the Harmonised Index of Consumer Prices (HICP), and was therefore not quite as pronounced as in 2011. At the start of 2013, the year-on-year rates fell to 1½% (CPI) and 1¾% (HICP).

The strong upward thrust of housing prices in Germany persisted in the year under review.

Prices at various levels of the economy

Table 5

Annual percentage change

Item	2011 Q4	2012 Q1	2012 Q2	2012 Q3	2012 Q4
Import prices	5.5	3.4	2.0	2.0	1.0
Export prices	2.7	2.0	1.5	1.6	1.5
Terms of trade	– 2.7	– 1.4	– 0.3	– 0.3	0.4
Industrial producer prices	4.8	3.3	2.1	1.4	1.5
Construction prices	3.1	3.2	2.8	2.6	2.5
of which					
Residential buildings	2.9	2.8	2.7	2.5	2.5
Prices for owner-occupied housing according to vdp	2.3	2.5	3.5	2.7	3.4
Consumer prices	2.2	2.2	1.9	2.1	2.0
Energy	10.1	7.3	4.9	6.3	4.4
Refined petroleum products	9.8	7.6	4.0	7.0	3.9
Gas, electricity and heat energy	7.6	5.8	5.4	5.1	4.3
Food products	2.5	3.3	3.1	3.0	4.1
Industrial goods (excluding energy)	1.1	1.2	1.4	1.1	1.3
Services (excluding rents)	1.0	1.3	1.2	1.3	1.7
Housing rents	1.3	1.3	1.2	1.2	1.2
Memo items					
GDP deflator	0.8	1.2	1.2	1.4	1.5
Use of domestic product deflator	1.7	1.7	1.5	1.7	1.7
Deflator of imported goods and services	3.7	2.2	1.7	1.7	1.3

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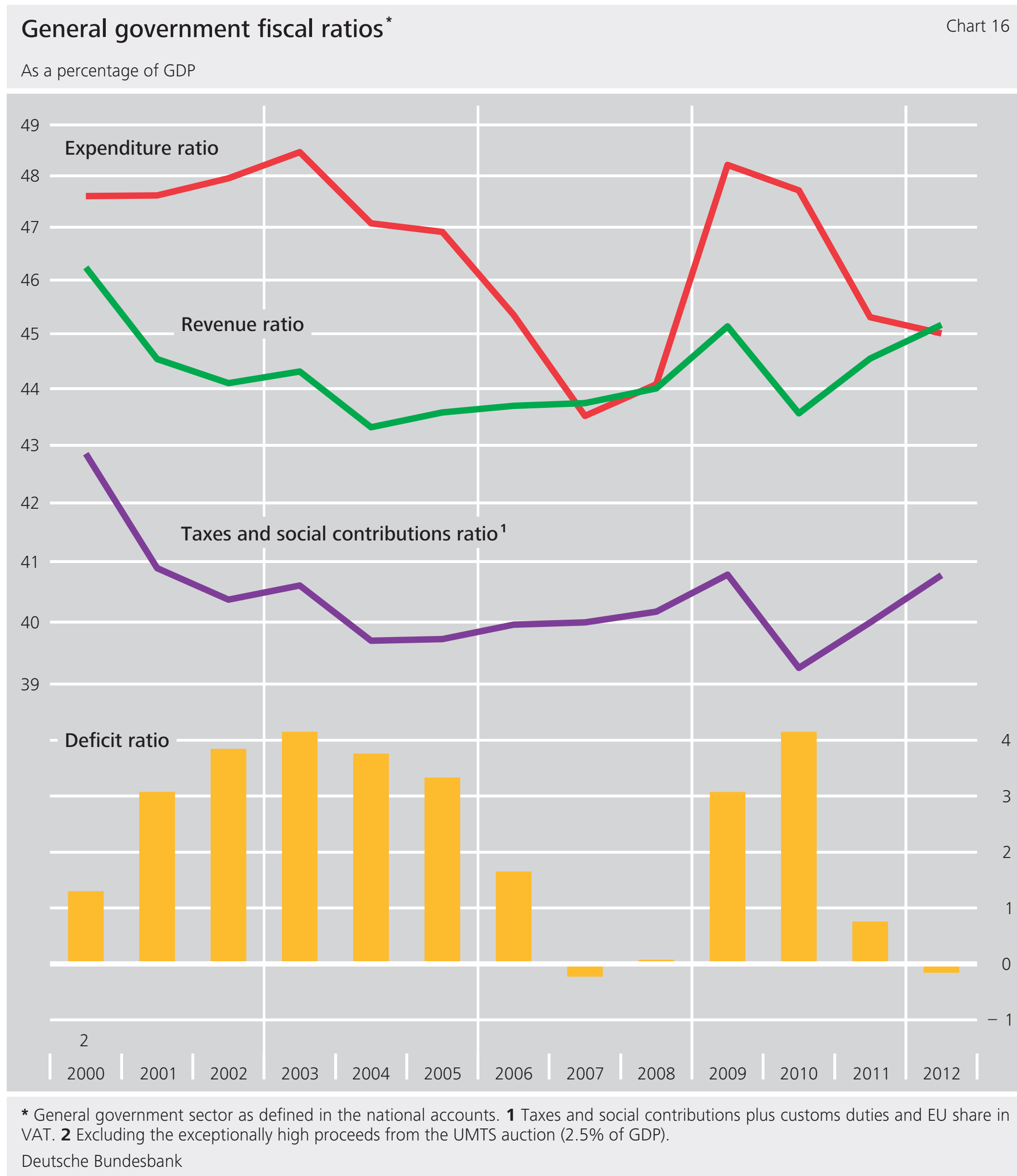
Persistently rising housing prices

According to the housing price index for 125 towns and cities – calculated on the basis of data provided by BulwienGesa AG – the rise in residential property prices, at 5¼%, was virtually just as strong as in 2011. According to the Association of German Pfandbrief Banks *(Verband deutscher Pfandbriefbanken, vdp),* owner-occupied housing was 3% dearer than in 2011. As in 2010 and 2011, prices of owner-occupied apartments in urban areas climbed at well above-average rates as these properties were still very much in demand, also given a lack of profitable or safe investment alternatives. By contrast, the upward trend in housing prices in rural areas remained moderate. Construction costs for new residential buildings rose at roughly the same pace as in 2011. According to estimates by BulwienGesa AG, rents for new tenancies also increased markedly. By contrast, overall housing rents – as recorded in the Consumer Price Index – remained on a moderate upward plane.

2 Slight surplus for general government budget in 2012, but high debt ratio up further

Slight surplus for general government budget in 2012, but high debt ratio up further

The general government budget recorded a slight surplus of 0.2% of GDP in 2012 (2011: deficit ratio of 0.8%). A distinct deficit at the central and state government level was masked by a surplus run up by the social security funds. The economic slowdown had no impact on Germany's public finances last year since key determinants – wage and labour market developments – remained stable on an annual average. One reason for the improvement in the fiscal balance was that tax revenue again increased significantly faster than was implied by the current cyclical constellation. Another reason was that cyclically adjusted expenditure went up only moderately. Interest payments actually fell on the back of the continuing highly favourable financing conditions. Hence the overall setting for public finances in Ger-



* General government sector as defined in the national accounts. **1** Taxes and social contributions plus customs duties and EU share in VAT. **2** Excluding the exceptionally high proceeds from the UMTS auction (2.5% of GDP).
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many was beneficial. After subtracting the cyclical effect, a structural deficit (albeit small) remains. The full-year debt ratio figure for 2012 is not yet available. It rose from the already very high 2011 level of 80.5% to 81.7% at the end of the third quarter of 2012, and probably finished the year at around the same level. On balance, the increase can be attributed to euro-area support measures totalling some €45 billion (EFSF loans, ESM capital injections).[5]

Revenue ratio up owing to dynamic development of tax receipts and favourable growth structure

The government revenue ratio increased markedly by 0.6 percentage point to 45.2%. The main reason for this was that the rise in tax receipts was considerably higher than was implied by the macroeconomic reference variable that is traditionally used as a proxy. It was underpinned by a favourable growth pattern, which enabled the key macroeconomic aggregates for taxes and social contributions to expand faster than GDP in the ratio's denominator. Legislative changes reduced the ratio marginally, primarily due to the lowering of the

5 Conversely, the ratio was held down by the small surplus and GDP growth in the denominator. Furthermore, various financial transactions were conducted by resolution agencies, which are assigned to the general government sector (accelerated reduction of existing portfolios, on the one hand, and the further assumption of liabilities and claims as part of resolving the public regional bank WestLB, on the other).

General government as defined in the national accounts* Table 6

Item	2010	2011	2012pe	2010	2011	2012pe
				Year-on-year change		
	€ billion			As a percentage		
Expenditure	1,191.0	1,174.5	1,189.9	4.0	– 1.4	1.3
of which						
Social benefits	633.0	633.3	644.9	1.6	0.0	1.8
Compensation of employees	195.3	199.7	203.2	2.3	2.3	1.8
Interest	63.4	65.9	65.0	– 0.3	3.9	– 1.3
Gross capital formation	41.9	42.7	39.5	0.8	2.0	– 7.5
Memo item						
Old-age provision1	304.0	306.7	312.6	1.5	0.9	1.9
Healthcare2	180.0	185.0	191.1	2.8	2.8	3.3
Revenue	1,087.4	1,154.9	1,194.1	1.5	6.2	3.4
of which						
Taxes	548.8	589.5	618.7	0.2	7.4	4.9
Social contributions	421.1	436.9	448.7	2.5	3.7	2.7
				€ billion		
Balance	– 103.6	– 19.7	4.2	– 30.6	83.9	23.9
Memo item						
As defined in the Maastricht Treaty				As a percentage		
Debt level3	2,059.0	2,088.0	. . .	16.4	1.4	. . .
	As a percentage of GDP			In percentage points		
Debt ratio3	82.5	80.5	. . .	8.0	– 1.9	. . .
Budget balance4	– 4.1	– 0.8	0.2	– 1.1	3.4	0.9

* In accordance with ESA 95. **1** In particular, expenditure of the statutory pension insurance scheme and on civil servants’ pensions. **2** Expenditure of the statutory health insurance scheme and on government assistance towards civil servants’ medical bills. **3** Results for 2012 not yet available. At the end of 2012 Q3, the debt level stood at €2,150.5 billion and the debt ratio at 81.7% of GDP. **4** In contrast to the budget balance in the national accounts, the balance as defined in the Maastricht Treaty is calculated taking into account interest payments from swap transactions and forward rate agreements.

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pension contribution rate. However, this was counterbalanced by an upward pull on the ratio of a similar magnitude brought about by fiscal drag.

Expenditure ratio down slightly

The expenditure ratio fell slightly to 45.0%, compared with 45.3% in 2011. In addition to lower interest payments, this was bolstered by a further reduction in labour market spending and the phasing-out of economic stimulus measures related to the financial and economic crisis of 2008-09. These factors outweighed, in particular, the burdens that arose from capital transfers as part of the winding-up of WestLB.

Fiscal situation of government improved, but distorted view of central government’s structural borrowing for 2012

The combined deficit of central, state and local government as defined in the budget accounts appears to have fallen only moderately from its 2011 level of €24½ billion, and is likely to have remained above €20 billion for 2012. While the deficits of the state and local government core budgets were probably cut by more than half from their combined 2011 total of €12 billion, central government’s deficit rose further to €23 billion. The target deficit set in the second supplementary budget, which was only adopted in November 2012, was nevertheless undershot considerably by €5½ billion, owing largely to lower-than-expected labour market and interest expenditure. Central government tax revenue rose by 3% year on year. Marked growth in spending of 3½% in total was primarily driven by high capital contributions to the ESM as well as to the EIB. These payments are classified as financial transactions in the national accounts and therefore have no impact on the deficit. In mid-January, the Federal Ministry of Finance reported central government structural net borrowing to be 0.32% of GDP (€8 billion, compared with €20½ billion in 2011). This was somewhat lower than the limit specified under the debt brake (0.35% of GDP), which is not set to take effect until 2016. However, not least the very high negative cyclical effect of €7 billion, which was deducted as part of a simplified cyclical adjustment procedure at budget out-

General government finances* Table 7

Item	2010pe	2011pe	2012pe	2010pe	2011pe	2012pe
	€ billion			Year-on-year change		
Central, state and local government1				As a percentage		
Expenditure	732.7	737.2	747.5	1.6	0.6	1.5
of which						
Central government (core budget)	332.4	324.8	335.5	4.8	– 2.3	3
State government (core budgets)	286.7	296.7	298	0.0	3.5	0.5
Revenue	650.5	712.4	725	3.0	9.5	1.5
of which						
Taxes	530.6	573.4	601	1.3	8.1	5
				€ billion		
Balance	– 82.2	– 24.7	– 23	7.3	57.5	2
of which						
Central government (core budget)	– 44.4	– 17.7	– 23	– 9.9	26.7	– 5
State government (core budgets)	– 20.8	– 10.2	– 5.5	6.3	10.5	4.5
Social security funds				As a percentage		
Expenditure	513.0	511.8	520	1.4	– 0.2	1.5
Revenue	516.9	526.5	536	5.1	1.9	2
				€ billion		
Balance	3.8	14.6	16	17.8	10.8	1.5
of which						
Statutory pension insurance scheme	2.0	4.7	5	1.9	2.7	0.5
Statutory health insurance scheme	3.7	9.2	8	4.9	5.5	– 1
Federal Employment Agency	– 2.6	0.4	3	10.9	3.0	2.5

* As defined in the financial statistics (primarily budgetary accounts). This differs from the definition of the government account within the national accounts. 1 Excluding public resolution agencies.
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turn, distinctly understates the actual still outstanding fiscal adjustment requirement for the Federal budget. Central government's off-budget entities (excluding the resolution agencies) recorded a positive result of €2½ billion in 2012, following a high surplus of €6 billion in the previous year, attributable to a high capital repayment to the Financial Market Stabilisation Fund (SoFFin) (which in the national accounts likewise had no effect on the deficit).

Social security funds with renewed large budget surplus

The social security funds recorded a renewed very large surplus of €16 billion in 2012. This was primarily due to the considerable increases in wages and the continued rise in employment subject to social security contributions. The statutory health insurance scheme generated a surplus in 2012 that was only marginally below the extraordinarily high figure recorded in 2011. Its better-than-expected performance was chiefly facilitated by weaker spending growth. The statutory pension insurance scheme managed to surpass the high positive result it recorded in 2011 despite the 0.3 percentage point cut in the contribution rate at the beginning of the year and the higher mid-year pension increase (in western Germany 2.18%, in eastern Germany 2.26%). The Federal Employment Agency lifted its surplus substantially thanks mainly to a further reduction in spending on active labour market policy. The public long-term care insurance scheme posted only a small surplus.

Outlook for 2013: renewed deficit due mainly to economic slowdown, but lower debt ratio

General government is likely to go back into deficit this year. This is principally due to the currently anticipated elimination of the positive cyclical component that prevailed in 2012. The cyclically adjusted fiscal balance is likely to change only marginally. Although the pension contribution rate was lowered significantly at the beginning of 2013, thereby reducing government revenue, the favourable refinancing conditions are likely to continue to have an alleviating effect on interest expenditure. The debt ratio is expected to fall as the public reso-

lution agencies are likely to curtail their liabilities (and risk assets) and, as things currently stand, the budget deficit should be low compared with nominal GDP growth. In contrast to 2012, these factors are likely to outweigh the burdens specified so far related to measures taken to stabilise the euro area or to potentially support German financial institutions. This projection is subject to substantial uncertainty, however, not least on account of the ongoing European debt crisis.

3 Investment and financing

Significant increase in financial investment compared with same period a year earlier …

According to the financial accounts data, financial investment by the domestic non-monetary sectors in the first three quarters of 2012 was up perceptibly on the year.[6] It amounted to €537 billion, compared with €451 billion in the same period one year earlier. This increase is due to higher financial investment by general government, non-financial corporations and households; financial corporations (excluding monetary financial institutions (MFIs)), by contrast, reduced their financial investment compared with the previous year.

… especially by general government …

In particular, there was a marked rise in general government's financial investment. This sector increased its financial assets by almost €89 billion, and thus invested just over €76 billion (net) more of financial resources than in the previous year. This was due, in particular, to a significant increase in lending, which rose from just under €2 billion to some €48 billion, due in large part to Germany's share in lending by the European Financial Stabilisation Facility (EFSF) and to the transfer of additional assets to the resolution agency Erste Abwicklungsanstalt (EAA) in the process of the resolution of WestLB. The asset transfer to EAA led, amongst other things, to copious inflows of funds to bank deposits (including currency), which, at €29 billion, received €9 billion more in funds than one year earlier, which had already been a strong period.

… but also by non-financial corporations and households

Non-financial corporations' financial investment likewise increased, reaching €149 billion net as against €127 billion over the same period one year earlier. However, the pace of the increase varied among the individual financial instruments. Whereas there was growth, for instance, in the other accounts receivable, which include trade credit and payments on account, credit claims within the corporate sector saw a significant decline. The latter is probably associated with weaker growth in earnings – a key resource for intragroup funding. Another reason could be that non-financial corporations increasingly obtained their funding through bank loans owing to the favourable terms and conditions. Lastly, households' financial investment also increased slightly. In the first three quarters of 2012, just under €121 billion worth of financial assets were acquired on balance, €8 billion more than the same time one year earlier. Inflows were recorded particularly to bank deposits (including currency), at €63 billion, as well as claims on insurance corporations, at €47 billion. By contrast, securities were sold in the amount of €13 billion net.

Financial investment of financial corporations (excluding MFIs) weaker

By contrast, the financial investment of financial corporations (excluding MFIs) was weaker. They acquired €178 billion in financial assets, almost €20 billion less than one year earlier.

Continuing trend towards shorter-term deposit types

All in all, a large part of financial investment by the domestic non-monetary sectors consisted of deposits held on bank accounts. These sectors' deposits held with German banks rose in 2012 by €59 billion, or 2%, on balance; their growth was thus perceptibly weaker than a year earlier (€95 billion or 3½%). As in 2011, deposit growth was sustained, in particular, by the large demand for short-term deposits. Unlike in the previous year, there were outflows not only in long-term time and savings deposits but also in short-term time deposits in favour of a strong increase in sight deposits. These portfolio shifts were due in particular to the in-

6 The financial accounts data are available up to the third quarter of 2012.

vestment decisions of households and non-financial corporations. The associated major liquidity preference and high risk aversion were probably due, amongst other things, to the historically low interest rate environment, especially in the case of time deposits, and the general uncertainty in the context of the debt crisis in Europe. During the reporting year, the trend towards more liquid deposit types was also evident among financial corporations (excluding MFIs); these reduced their long-term time deposits, and to a lesser extent their short-term time deposits, too, substituting some of them by building up sight deposits. However, the reduction in such long-term deposits of this sector far exceeded inflows into short-term deposits, resulting in a net withdrawal of funds.

Non-banks' capital market investment

Alongside the continued build-up of bank deposits, the domestic non-monetary sectors also significantly stepped up their activity in the capital markets in the past year. Attention was focused on investment in mutual funds. In 2012, domestic investors acquired €119 billion in mutual fund shares, compared with €45 billion in 2011. In particular demand were specialised funds, which manage assets for institutional investors such as insurance corporations, pension funds, church associations or foundations. In addition, in 2012 bond investment was increased by €56½ billion. During the reporting year, the non-monetary sectors acquired, on balance, exclusively foreign debt, much of which was purchased by investment companies. However, share purchases, at €7½ billion, were down significantly (previous year: €30 billion). Here, too, interest was focused on foreign instruments.

General government and households increased external borrowing

According to the financial accounts, the volume of liability-side external financing in the domestic non-monetary sectors in the first three quarters of 2012 was almost €380 billion and thus somewhat higher than in the corresponding period of 2011 (€360 billion). It was particularly general government which had a greater demand for funding. Its borrowing added up to just under €85 billion net and consisted first and foremost in issuing fixed-interest long-term securities. Households, too, had a greater demand for external funding (€12 billion on balance) than one year earlier (€8 billion). Such funding primarily took the form of loans for house purchase, which is probably associated with the quite dynamic growth in the real estate markets.

External funding of enterprises and financial corporations (excluding MFIs) weaker

The external financing of non-financial corporations, by contrast, declined. It amounted to just under €115 billion during the reporting period, and was thus down from the corresponding period of the previous year (€134 billion). The maturity structure shifted slightly towards longer-term funding. Moreover, the creditor structure shifted towards banks; although non-banks contributed to funding, this was on a significantly smaller scale than it was in 2011. Borrowing by financial corporations (excluding MFIs) likewise fell; at €169 billion on balance, it was around €20 billion less than in the same period one year earlier.

German banks' domestic lending recovering

The lending business (loans and securities other than shares) of German banks with domestic non-banks recovered in the reporting year following a significant decline in the year before. The moderate growth of 1.1% was due in equal part to an increase in lending to the private sector and in lending to general government. Credit to the domestic private sector in the form of securities other than shares was in decline, as it was in the two preceding years, thus counteracting the significant growth in loans. The increase in loans to the private sector resulted from an expansion in lending to non-financial corporations and households, whereas lending to financial corporations grew only marginally (see chart on page 65).[7] This slight increase was largely confined to other financial institutions (OFIs); outstanding loans

7 As is the case for the euro area as a whole, bank loans to financial corporations in Germany for the period from June 2010 onwards are adjusted to exclude reverse repo transactions with central counterparties. For more details, see p 49.

Loans of German banks by selected domestic sector

Seasonally adjusted, end-of-month levels

1 Annual percentage change. **2** From June 2010, adjusted to exclude reverse repos with central counterparties. **3** Non-financial corporations and quasi-corporations.
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of insurance corporations and pension funds, by contrast, remained largely unchanged.

Positive loan growth supported by non-financial corporations …

The growth in loans to non-financial corporations occurred mostly in the long-term maturity segment. With the support of lending to savings banks and cooperative banks, loans in this sector were up by 1.7%, which was somewhat stronger growth than in the preceding year (1.3%). Against the background of faltering investment in machinery and equipment, this indicates a change in funding behaviour, which could be linked to more favourable lending rates.

… and households

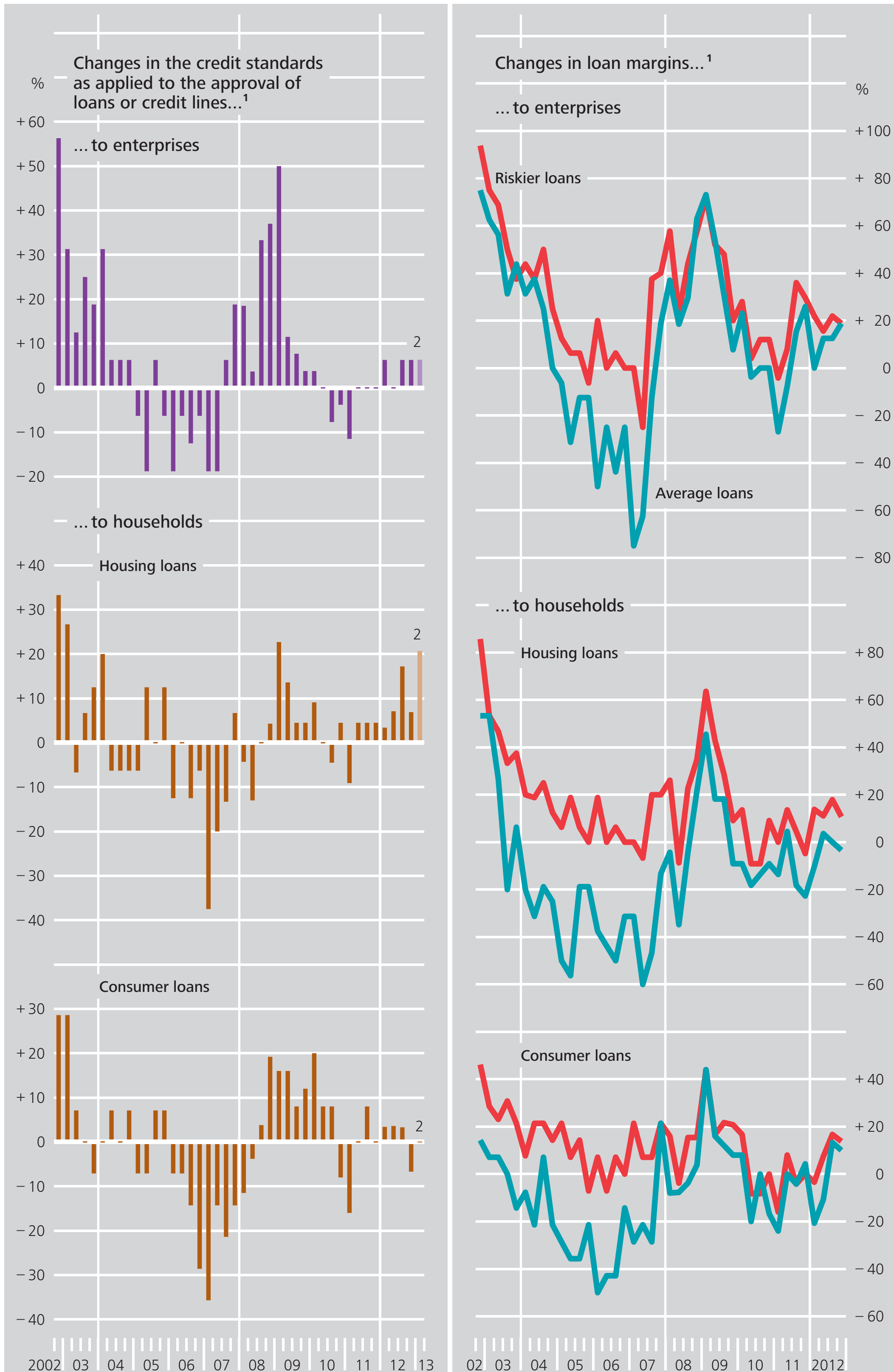
In addition to loans to non-financial corporations, German banks also increased their lending to domestic households in the reporting year. Year-on-year loan growth accelerated by 70 basis points to 1.4%. It was particularly cooperative banks, regional banks and savings banks which contributed to the renewed rise in lending. As was already the case in 2011, this increase was due almost entirely to loans for house purchase, which once again showed a clear acceleration in growth. It was mainly in the second half of the year that these types of loans showed further perceptible growth; the annual growth of 1.9% for 2012 was therefore the fastest increase since 2004. By contrast, consumer loans grew by only 0.3%, which was again somewhat weaker than a year earlier, whereas other loans went back up slightly after falling in 2011.

Credit supply conditions tightening slightly …

According to the results of the Bank Lending Survey for Germany, credit standards for lending to non-financial corporations were tightened again slightly in 2012, but are still at a low level (see chart on page 66). Small and medium-sized enterprises, however, were benefiting in the first half of the year from marginal easings of credit standards, one of the reasons for this being competition among lending banks. Overall corporate lending business, however, was dominated by restrictive factors; capital costs

Bank Lending Survey
Results for Germany

Chart 18



1 Difference between the respondents reporting "tightened considerably" and "tightened somewhat" and the respondents reporting "eased somewhat" and "eased considerably" as a percentage of the responses given. — **2** Expectations for Q1.

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and institutions' perception of risk, in particular, led to credit standards being tightened slightly. The margins for loans to enterprises were also widened perceptibly, according to the surveyed bank managers. The measures of lending to households developed in much the same way as those for loans to enterprises. It was only margins for average-risk loans in these two segments that were initially made even narrower at the beginning of the year; as the year progressed, this trend then came to a halt for loans for house purchase and went into reverse in the case of lending for consumption purposes.

… given falling demand on the part of enterprises and major need for loans for house purchase

The banks participating in the survey reported a slight decline in demand for loans to enterprises since, amongst other things, enterprises relied on internal funding. By contrast, loans for house purchase were in strong demand in 2012, too, owing to the persistently positive outlook in the housing market and high consumer confidence; this corroborates information regarding the rise in loans granted for this purpose. By contrast, the interviewees reported that demand for consumer loans was largely treading water.

Enterprises report positive financing conditions

This information provided by the banks interviewed for the Bank Lending Survey on their credit conditions for loans to enterprises is corroborated by surveys among non-financial corporations regarding their access to bank loans. Thus, for instance, the Ifo Institute's credit constraint indicator remained at an all-time low throughout 2012. However, in line with information provided by bank managers in the Bank Lending Survey, enterprises, too, reported that financing conditions had tended to worsen somewhat in the second half of the year. Nonetheless, according to both surveys, corporate finance in Germany remained largely unscathed despite the sovereign debt crisis and its negative impact on lending in most other euro-area countries.

Given the sharp decline in German banks' wholesale funding costs, the interest rates they charged in new lending business with domestic households and with non-financial enterprises fell significantly, hitting new all-time lows (see chart on page 68). Interest rates for loans to enterprises with an interest rate fixation of more than five years fell to 2.6% for large loans and 2.7% for small loans. For loans for house purchase with an interest rate fixation of over five years and up to ten years, banks were charging 2.8% at year's end, which was likewise significantly less than at the beginning of the year. Long-term consumer loans, too, became cheaper during the year, costing 4.9% in December.

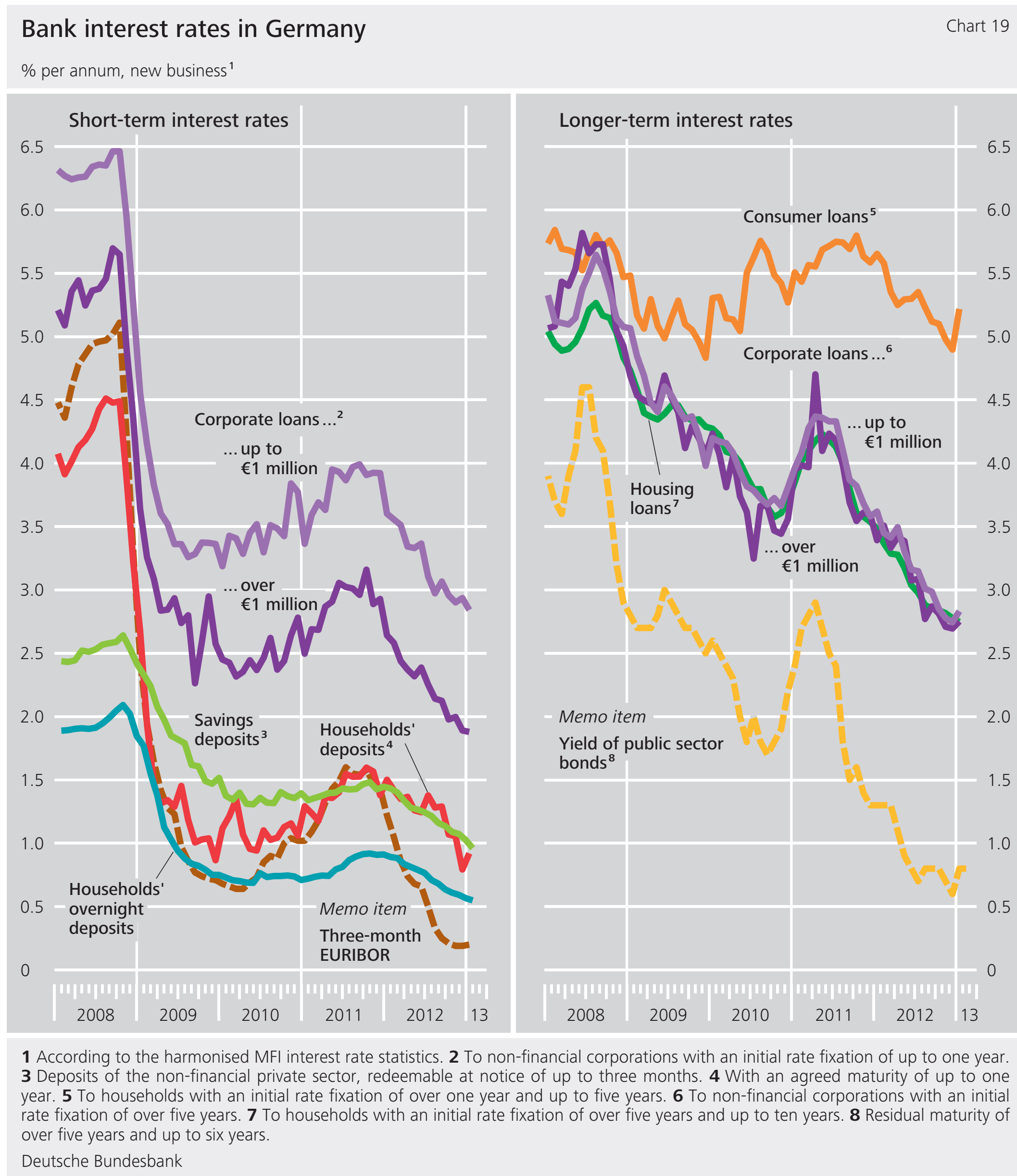
Bank lending rates likewise at very low level

Net redemptions in the bond market driven primarily by credit institutions

Domestic borrowers redeemed €21½ billion net worth of bonds on the domestic bond market in 2012. This was due mainly to domestic credit institutions, which reduced their borrowing on the capital market – amidst strong growth of deposits – by €99 billion (2011: -€47 billion). Once again, the focus was on net redemptions of other bank debt securities that can be structured flexibly (€51½ billion) and of public Pfandbriefe (€40½ billion). But mortgage Pfandbriefe and debt securities issued by specialised credit institutions, too, were redeemed in net terms (€4 billion and €2½ billion respectively). The amount of public Pfandbriefe in circulation has been falling for some years now since government agencies are obtaining less funding through bank lending and major issuers have pulled out of the market. Demand for other bank debt securities, which often feature elements of derivatives, fell considerably during the financial crisis.

Net redemptions of corporate bonds

German enterprises redeemed €8½ billion worth of instruments on the domestic capital market. This was due, on balance, exclusively to OFIs, which reduced their borrowing in the capital market by €30 billion (following €6½ billion in 2011). Particularly in 2008 to 2010, at the beginning of the financial crisis, these institutions had issued a large quantity of debt securities, part of which were securitisation transactions provided to the banking sector. By contrast, non-financial corporations took ad-



Bank interest rates in Germany

Chart 19

% per annum, new business[1]

1 According to the harmonised MFI interest rate statistics. **2** To non-financial corporations with an initial rate fixation of up to one year. **3** Deposits of the non-financial private sector, redeemable at notice of up to three months. **4** With an agreed maturity of up to one year. **5** To households with an initial rate fixation of over one year and up to five years. **6** To non-financial corporations with an initial rate fixation of over five years. **7** To households with an initial rate fixation of over five years and up to ten years. **8** Residual maturity of over five years and up to six years.

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vantage of the continuing favourable capital market conditions and issued debt securities in Germany for €18 billion on balance.

Increased borrowing by public sector

By contrast, the public sector tapped the capital market for a net €86 billion (2011: €59½ billion). A large share of this was accounted for by central government and the resolution agency, which is classified as part of central government. Central government issued mainly five-year Federal notes (Bobls, €21 billion) as well as 30-year and ten-year Bunds (€12½ billion and €9½ billion respectively). The Federal states increased their capital market borrowing by €31½ billion net. The EAA, which is assigned for statistical purposes to the Federal states, was also a major issuer.

Hardly any equity issuance in German market

Issuing activity in the German market was very tepid in 2012. At €5 billion, domestic corporations raised far less equity capital than in 2011 (€21½ billion). Somewhat more than half of issues were by listed enterprises (€3 billion). In most cases, this involved capital increases by existing enterprises.

Mutual funds raised large quantity of funds

The German mutual investment fund sector recorded comparatively large inflows of funds in 2012 at €90 billion, compared with €45 billion in 2011. The new resources went largely to the

specialised funds, which placed €88 billion worth of share units in the market. Among funds open to the general public, it was particularly open-end real estate funds (€3½ billion) and pension funds (€1½ billion) which sold additional share units. By contrast, it was particularly equity funds, but also money market funds, which recorded outflows of funds (€2 billion and €1 billion respectively).

German net external assets

Unlike in the previous year, Germany's net external assets went back up in 2012. In the first three quarters of the year, for which data on the international investment position are currently available, German net external assets rose by €168½ billion. This was due almost exclusively to balance of payments transactions (€161 billion), whereas the effects of market prices and exchange rates were, on balance, not a significant factor up to September 2012. In 2012 as a whole, Germany's current account surplus was €185½ billion, which was thus somewhat higher than in the year before (€161 billion).

TARGET2 balance up considerably

The Bundesbank's higher TARGET2 balance made a key contribution to the increase in Germany's net external position. The Bundesbank's TARGET2 claims vis-à-vis the ECB grew by €192½ billion over the course of the year. The majority of the increase occurred in the first half of the year, in which Italy and Spain, two major euro-area economies, attracted the attention of the financial markets. August saw the highest end-of-month level, which was €751½ billion for Germany and €1,093 billion for the Eurosystem as a whole.[8] Since then, the TARGET2 balances, while undergoing considerable fluctuations, initially stabilised and then receded somewhat towards the end of the year. As at 31 December 2012, the Bundesbank's TARGET2 claims on the ECB stood at €655½ billion.

8 Sum of all national central banks' TARGET2 claims on or TARGET2 liabilities to the ECB.

Chronology of economic and monetary policy measures

1 January 2012

The contribution rate to the statutory pension insurance scheme is reduced from 19.9% to 19.6%.

2 January 2012

Benoît Cœuré and Jörg Asmussen take office as new members of the Executive Board of the ECB.

31 January 2012

The Fiscal Compact for national budget rules (as included in the Treaty on Stability, Coordination and Governance in the Economic and Monetary Union) is adopted by all EU member states (with the exception of the UK and the Czech Republic). This compact is designed to enter into force after ratification by at least twelve euro-area countries.

2 February 2012

The Treaty establishing the permanent European Stability Mechanism (ESM) is signed by the ambassadors of the euro-area countries in Brussels.

9 February 2012

The Governing Council of the ECB approves specific national eligibility criteria and risk control measures for the temporary acceptance in a number of countries of additional credit claims as collateral in Eurosystem credit operations.

24 February 2012

The Federal Statistical Office reports a general government deficit (pursuant to the Maastricht criteria) of 1.0% of GDP for 2011.

27 February 2012

Germany's lower house of parliament, the Bundestag, votes in favour of the second assistance programme for Greece ensuring the provision of (additional) European Financial Stability Facility (EFSF) loans, subject to conditions.

28 February 2012

In connection with the initiation of the private sector bail-in and rating developments in Greece, the ECB Governing Council decides to temporarily suspend the eligibility of marketable debt instruments issued or fully guaranteed by the Greek government for use as collateral in Eurosystem monetary policy operations.

The Federal Constitutional Court rules that any assignment of Bundestag rights to participate in EFSF assistance measures to a special panel, as stipulated in section 3 (3) of the Euro Stabilisation Mechanism Act *(Stabilisierungsmechanismusgesetz),* is in breach of the rights of German MPs enshrined in the German constitution. Solely decisions concerning secondary market purchases of government bonds may be transferred to this special panel.

29 February 2012

The Eurosystem issues €529 billion in liquidity under the second three-year tender.

1 March 2012

The difference between central government's actual structural deficit for the 2011

budget year and the envisaged upper limit under the debt brake is credited to the control account. With an actual value of €20 billion and a ceiling of €45½ billion forecast by the Federal Government, this results in an amount to be credited of €25½ billion.

8 March 2012

Following the activation of a buy-back scheme designed to hedge risks associated with marketable debt instruments issued or fully guaranteed by the Greek government, the Eurosystem agrees to once again accept such debt instruments for use as collateral in monetary policy operations. This derogation applies solely for the term of the buy-back scheme, which is set to run until the end of July 2012.

13 March 2012

The Bundesbank presents its annual accounts for the 2011 financial year. The profit of €643 million is transferred in full to central government.

The (voluntary) haircut for private creditors agreed under the second assistance programme for Greece is concluded. This fulfils one condition for Greece to receive further instalments of financial assistance.

21 March 2012

Eurosystem NCBs are no longer required to accept bank bonds as collateral if these are guaranteed by countries participating in an adjustment programme.

The Federal Cabinet approves the draft of a supplementary Federal budget for 2012 which has the particular aim of enabling the frontloading of payments to the ESM in the amount of €8.7 billion. Planned net borrowing subsequently increases by the above amount from €26.1 billion to €34.8 billion. Losses arising mainly from the Bundesbank profit being smaller than predicted and lower loan repayments are cushioned to a large extent by a reduction in interest expenditure appropriations. Since the ESM payment and any loan repayments are classified as financial transactions and growth assumptions are more modest than previously projected, the structural deficit is €1½ billion below the figure in the initial 2012 Federal budget. However, compared with the actual structural deficit figure for 2011, this nonetheless represents an increase of €4 billion, not least on account of the array of concessions vis-à-vis the June 2010 consolidation package.

Furthermore, as part of a top-down procedure, the Federal Cabinet sets out benchmark figures for the 2013 central government budget and the financial plan up to 2016. Cuts in transfers to the social security funds are envisaged with a view to generating budget savings, primarily in 2013. Thanks, in particular, to the estimate for the interest burden being revised downwards vis-à-vis last year's financial planning figures, it is possible to dispense with the global spending cuts of €5 billion previously scheduled for 2014 onwards without needing to take consolidation measures. In addition, it is planned to reduce net borrowing to €1 billion by 2016.

30 March 2012

The Eurogroup decides to raise the combined lending firepower of the ESM and EFSF from €500 billion to €700 billion.

18 April 2012

The Federal Cabinet presents an updated stability programme for Germany. This is based on real GDP increasing by 0.7% in 2012, 1.6% in 2013 and 1½% annually in the years thereafter up to 2016. Deficit

ratios of 1% and ½% are estimated for 2012 and 2013, respectively. A balanced general government budget is planned to be achieved from 2014 onward. The structural deficit ratio of 0.7% recorded for 2011 is to be eliminated by 2014. The debt ratio is expected to climb back up to 82% in 2012 due to the fact that further liabilities and risk assets are expected to be assumed by the government sector in the wake of the forthcoming resolution of the public regional bank WestLB in the middle of the year. It is planned to gradually reduce the debt ratio to 73% by 2016.

23 April 2012

The general government deficit and debt figures reported by the EU member states in their spring notifications are published by the European Commission under the European budgetary surveillance procedure, after validation by Eurostat. Germany submits a deficit ratio of 1.0% and a debt ratio of 81.2% for 2011. For 2012, the Federal Government announces a planned deficit ratio of 0.9% and a (renewed) rise in the debt ratio to 82.0%.

6 May 2012

The premature parliamentary elections in Greece fail to deliver a clear majority result, meaning that no government can be formed. Implementation of the requirements set out in the second assistance programme grinds to a virtual halt. Additional assistance payments scheduled for 2012 cease to flow over several months.

11 May 2012

The Second Act Amending the Euro Stabilisation Mechanism Act *(Zweites Gesetz zur Änderung des Stabilisierungsmechanismusgesetz)* is passed by the Bundesrat. In accordance with the Federal Constitutional Court's stipulations of 28 February 2012, this extends the Bundestag's rights to participate in decisions made by the EFSF.

24 May 2012

After examining the restructuring reports submitted by the federal states of Berlin, Bremen, Saarland, Saxony-Anhalt and Schleswig-Holstein, the Stability Council concludes that these states have fulfilled their obligation to reduce their structural budget deficits during 2011. As a consequence, consolidation assistance totalling €800 million can be paid to these states by the other members of the German federation on 1 July.

6 June 2012

The Governing Council of the ECB decides to extend its full allotment arrangement for main refinancing operations and monthly three-month operations by six months up to January 2013. In the case of regular refinancing operations with a maturity of one maintenance period, the full allotment procedure will be maintained until further notice.

14 June 2012

The Bundestag approves the supplementary Federal budget for 2012. Compared with the draft figure, the net borrowing target is lowered by just over €2½ billion to €32.1 billion, mainly owing to an increase in projected tax revenue. At €21½ billion, the structural deficit is still almost €1½ billion higher than the actual figure recorded for 2011.

17 June 2012

Following repeat parliamentary elections in Greece, the new government declares its intention to adhere to the agreements con-

tained in the second assistance programme. However, any resumption of assistance payments is dependent on a positive report by the Troika (IMF, European Commission and ECB).

22 June 2012

By easing the eligibility criteria and reducing the rating threshold for certain asset-backed securities (ABS), the ECB Governing Council induces an increase in the level of collateral available to monetary policy counterparties.

27 June 2012

The Federal Cabinet approves the draft central government budget for 2013 and financial plan up to 2016. Central government forecasts net borrowing of €18.8 billion for 2013. Given the envisaged high capital contributions to the ESM, net burdens of €6 billion are anticipated for financial transactions. Moreover, a nominal cyclically induced burden of €3½ billion is forecast, despite numerous indications of a rather favourable macroeconomic situation. As a result, structural net borrowing, which is limited by the debt brake, amounts to just over €9 billion, thus already reaching the ceiling of 0.35% of GDP envisaged for 2016. The planned deficit reduction vis-à-vis the 2012 supplementary budget target is based not only on higher tax revenue and lower interest expenditure but also, to a large extent, on discretionary cuts in transfers to the social security funds. Assuming an ongoing marked increase in tax revenue, muted spending developments and no additional consolidation measures, the financial plan envisages a total elimination of net new borrowing by 2016.

29 June 2012

The European Council decides to consider the possibility of a single European supervisory mechanism as a prerequisite for the direct recapitalisation of financial institutions by the ESM. Moreover, it is agreed to loosen the (yet to be outlined) conditions for the granting of assistance by the ESM.

The Bundestag and Bundesrat each pass the Acts ratifying the ESM Treaty and the Fiscal Compact with a two-thirds majority. The legislation is prevented from entering into force while it awaits the signature of the Federal President, pending the outcome of a public intervention by the Federal Constitutional Court.

1 July 2012

WestLB is wound up. Key aspects of its resolution include the hiving-off of its S-Group Bank business to Helaba, the assumption of most of its remaining assets by the responsible resolution agency, *Erste Abwicklungsanstalt* or EAA, and the retention of its portfolio and service activities, including its residual personnel, by WestLB's legal successor, Portigon. By "stocking up" the EAA as part of the WestLB resolution process, additional balance sheet items are transferred to the government sector. The effect on the general government debt ratio of up to two percentage points was already partially taken into account in the previous year's figure as, in anticipation of the aforementioned portfolio assumption, liabilities relating to the acquisition of liquidity had been included upfront as a precautionary measure.

3 July 2012

The ECB Governing Council decides to freeze the prevailing scope of counterparties' own-use of government-guaranteed bank bonds as collateral for monetary policy operations at its current level on an individual counterparty basis, while nonetheless permitting these parameters to be ex-

ceeded, subject to prior consent from the Governing Council of the ECB.

5 July 2012

The Governing Council of the ECB decides to lower the interest rate on the main refinancing operations by 25 basis points to 0.75%, starting from the operation to be settled on 11 July 2012. The interest rates on the marginal lending facility and the deposit facility are reduced by the same margin to 1.50% and 0.00%, respectively.

10 July 2012

At a hearing, the Federal Constitutional Court discusses several emergency motions filed against the Acts endorsing the ESM and the Fiscal Compact.

20 July 2012

At a specially called parliamentary meeting, the Bundestag approves Spain's application for assistance in the form of loans to support its banking sector.

25 July 2012

Upon expiry of the buy-back scheme, marketable debt instruments issued or fully guaranteed by the Greek government are deemed to be ineligible for use as collateral in Eurosystem monetary policy operations until further notice.

26 July 2012

In a speech to investors in London, ECB President Mario Draghi states that, within its mandate, "the ECB is ready to do whatever it takes to preserve the euro". This triggers a sharp decline in the yields on Italian and Spanish government bonds.

2 August 2012

At a press conference, President Mario Draghi states that risk premiums related to fears of the reversibility of the euro are unacceptable and need to be addressed in a fundamental manner. He further remarks that the euro is irreversible. In the question and answer session of the conference, he confirms that Bundesbank President Jens Weidmann has his reservations about programmes that envisage buying government bonds.

1 September 2012

The nominal economic growth figure is found to be somewhat higher than previously estimated and the sum credited to the control account under the debt brake is therefore revised upwards to €25.2 billion. This is the final booking for the year 2011.

6 September 2012

The Governing Council of the ECB terminates the Securities Markets Programme (SMP) which was set up in 2010 and is currently dormant. Parallel to this, the Council decides in principle to implement a new programme to purchase sovereign bonds on secondary bond markets in the euro area, to be known as Outright Monetary Transactions (OMTs), and sets out an initial framework for this activity.

12 September 2012

The Federal Constitutional Court rejects several applications specifically aimed at securing a temporary injunction to prevent the Acts of 29 June 2012 concerning the ESM and the Fiscal Compact being signed onto the statute book by the Federal President. However, the Court goes on to state that any ratification of the ESM Treaty is only permissible if it is ensured under inter-

national law that, without the authorisation of Germany's representatives on ESM bodies, the country's cap for liability cannot exceed €190 billion.

The ECB welcomes a proposal by the European Commission recommending the establishment of a single supervisory mechanism (SSM), describing it as an important step towards laying the foundations of a financial market union.

The ECB Governing Council extends the swap agreement concluded with the Bank of England in December 2010 by an additional year.

21 September 2012

The Act on Restructuring Long-Term Care *(Pflegeneuausrichtungsgesetz)* is passed by the Bundesrat. This act makes provision for benefit increases, particularly for individuals suffering from dementia, which are to be financed by raising the contribution rate from 1.95% to 2.05% (plus 0.25% in each case for the childless).

26 September 2012

The Federal Cabinet approves a draft second supplementary budget for 2012 with the particular aims of financing a capital injection for the European Investment Bank (EIB), to which Germany is required to make a €1½ billion contribution in the form of a financial transaction, and of topping up the special fund for extending childcare for infants by €½ billion. These budgetary burdens are largely to be counterfinanced by less funds being earmarked for interest expenditure. The 2012 structural deficit is estimated at €20 billion, thus matching the actual figure for 2011.

8 October 2012

The ESM Treaty enters into force.

22 October 2012

The general government deficit and debt figures reported by the EU member states in their autumn notifications are published by the European Commission under the European budgetary surveillance procedure, after validation by Eurostat. In the case of Germany, a deficit ratio of 0.8% and a debt ratio of 80.5% are recorded for 2011, somewhat below the levels in the spring report. In light of the base effect and the favourable intra-year developments, the Federal Government announces a slightly lower planned deficit of 0.5% along with a marginally higher debt ratio of 82.2% for 2012.

31 October 2012

The Second Covered Bond Purchase Programme (CBPP2) ends as scheduled after one year. Against a backdrop of increased private demand and reduced supply, the purchase volume amounts to €16.4 billion, thus falling well below the originally intended figure of €40 billion.

7 November 2012

In its 2012-13 Annual Report, the German Council of Economic Experts forecasts no acceleration of growth in 2013. Real GDP is anticipated to rise by just 0.8%. Unlike in previous years, foreign trade is not expected to contribute positively to growth. Moreover, investment in machinery and equipment is projected to go up by a mere 0.2%. By contrast, construction investment is forecast to increase by 2.1%, although commercial construction and public sector construction investment are only expected to generate weak momentum, with housing construction projected to expand by 3.2%. Private consumption is forecast to grow by 0.8% as a result of the robust labour market developments and rising disposable income, while government consumption is

set to increase by 1.0%. Employment figures for 2013 are forecast to increase marginally, with the unemployment rate slightly up on the year at 6.9%.

21 November 2012

The Bundestag approves the second supplementary budget for 2012. With the target figure for net borrowing revised downwards again to €28.1 billion, primarily due to expectations of a further increase in tax revenue, the structural deficit is estimated at €15½ billion. This represents a decline of €5 billion compared with the actual figure recorded for 2011, which is more than explained by the less favourable assessment of the impact of cyclical factors, regardless of the declining number of unemployed persons and the marked increase in tax revenue.

23 November 2012

The Bundestag approves the Federal budget for 2013. The target value for net borrowing is reduced by €1.7 billion to €17.1 billion vis-à-vis the summer draft, whereas the structural deficit remains unchanged at €9 billion.

27 November 2012

The Eurogroup reaches an agreement with the IMF on adjustments to the assistance programme for Greece.

30 November 2012

The Bundestag gives its assent to the amended Greek assistance programme which permits targets to be relaxed and allows for the granting of additional transfers.

6 December 2012

The Governing Council of the ECB decides on the details regarding the tender procedures and modalities to be applied in its refinancing operations up to 9 July 2013. In particular, it resolves to continue to conduct these operations on a full allotment basis.

13 December 2012

The Council of EU finance ministers (ECOFIN) agrees on a timeframe for introducing a single supervisory mechanism (SSM). This roadmap stipulates that the necessary legal framework is to be finalised by March 2013 and that the SSM is to be established at the ECB and up and running by March 2014. It should be possible to recapitalise banks directly via the ESM once an effective single supervisory mechanism has been created.

ECB President Mario Draghi welcomes the political agreement on the SSM which, in referring to a "banking union", expressly seeks to harmonise and improve the monitoring of euro-area banks. In addition, the ECB Governing Council extends the liquidity swap arrangements with other central banks by one year.

The agreed buy-back of Greek sovereign bonds is completed, paving the way for the disbursement of the next financing tranche.

13-14 December 2012

The European Council reaches broad agreement on the possibility of contracts being concluded between EU member states and the relevant EU institutions in which the former voluntarily commit to adopting reform measures. Subject to compliance, funds may be made available courtesy of a new, yet to be established, fund.

18 December 2012

Upon taking office as a member of the Executive Board of the ECB, Yves Mersch assumes responsibility *inter alia* for risk man-

agement as well as shared responsibility for the Banking Union Project with ECB Vice-President Vitor Constâncio.

19 December 2012

Based on the positive assessment arising from the first review of the Second Economic Adjustment Programme for Greece, the Eurosystem reverts to accepting marketable debt instruments issued or fully guaranteed by the Greek government as collateral for monetary policy operations. The usual credit rating threshold ceases to apply until further notice.

1 January 2013

The Fiscal Compact enters into force, having been duly ratified by at least twelve member states of the euro area. It stipulates that the national rules are to be implemented within a one-year period.

The contribution rate to the statutory pension insurance scheme is cut from 19.6% to 18.9%, while the public long-term care insurance scheme contribution rate is raised from 1.95% to 2.05% (plus 0.25 percentage point in each case for the childless). At the same time, nursing benefits are increased, particularly for individuals suffering from dementia.

Central government transfers to the health insurance fund and to the statutory pension insurance scheme are lowered by €2.5 billion and €1 billion, respectively. In addition, the surgery visit charge applying to outpatient treatment is abolished.

As the third Financial Market Stabilisation Act comes into force, the raft of measures drawn up to stabilise the financial sector in 2012 are extended to apply until the end of 2014. To help cover any losses arising from stabilisation-related intervention, in future use may also be made of money held in the restructuring fund so as to minimise the burden on the taxpayer.

The basic income tax allowance is raised by €126 to €8,130. A further increase of €224 is envisaged for 2014, raising the allowance to €8,354. The background to this is the constitutionally enshrined tax exemption up to the minimum subsistence level. For the same reason, the child tax allowance needs to be raised from 2014 onward, but a decision on this is postponed to a later date.

15 January 2013

According to the preliminary figures, net borrowing under the 2012 Federal budget amounted to €22.5 billion. In a year-on-year comparison, this represents a further increase of €5 billion. Compared with the target value specified in the second supplementary Federal budget, however, this outturn constitutes an improvement of €5½ billion. In the main, there was less spending on current transfers and grants, but interest expenditure and personnel costs were also down. Together with the GDP data published by the Federal Statistical Office on this same date, a central government structural (new) borrowing figure of 0.32% of GDP can be computed, based on the Federal Government's simplified cyclical adjustment procedure and its definition of the financial transactions which are to be excluded from the calculations. According to the available data, the constitutional threshold of 0.35%, which is not scheduled to apply until 2016 and beyond, is already being met.

16 January 2013

In its Annual Economic Report, central government expects a rebound in growth in 2013. The increase in real GDP is, however, forecast to be limited to 0.4% on account

of the weak fourth quarter of 2012 and first quarter of 2013. Growth is expected to be driven primarily by the domestic economy. Exports are projected to rise only moderately, with imports experiencing more dynamic growth. This is anticipated to result in a slightly negative growth contribution from foreign trade. Private consumption and housing investment are forecast to increase perceptibly, whereas investment in machinery and equipment is again expected to see noticeable cuts.

20 February 2013

In trilogue negotiations, the finance ministers of the euro-area countries, the European Commission and the European Parliament reach broad agreement on two economic governance regulations, known as the "two pack", which were initiated by the Commission in 2011 with a view to strengthening the surveillance of fiscal policies.

22 February 2013

The Federal Statistical Office reports a general government surplus (pursuant to the Maastricht criteria) of 0.2% of GDP for 2012.

12 March 2013

The Bundesbank presents its annual accounts for the 2012 financial year. The profit of €664 million is transferred in full to central government.

Financial and monetary system

The tension and uncertainty triggered by the European sovereign debt crisis continued to shape events in the European financial system during much of 2012. Signs of a stabilisation only began to emerge in the second half of the year, since when the stabilising tendency has continued until the present. This was facilitated partly by various milestone political agreements to promote closer European integration but mainly by further extensive monetary and fiscal policy measures whose side-effects could, however, leave a difficult legacy for future financial stability. To ensure a permanently stable financial system and sustainable economic development, it is essential to ensure sound public finances, implement the necessary structural reforms and cleanse fragile bank balance sheets.

The ongoing sovereign debt crisis and the persistent low interest rate environment pose an increasing challenge to both banks and insurers. Although German credit institutions further increased their resilience in the past year, a harsher market environment and structural burdens may well depress earnings going forward. Overall, the insurance sector appears robust. However, the quest to offset declining earnings in traditional capital investment segments by pursuing innovative investment strategies and venturing into new business areas requires appropriate risk management systems.

The International Monetary Fund (IMF) significantly increased its lending capacity again in 2012 to facilitate its ongoing ability to play its systemic role in the global economy. The Bundesbank contributed to this increase by providing a credit line of €41.5 billion. In addition, the IMF enhanced its crisis prevention function by expanding its coverage of financial stability issues and by paying greater attention to the cross-border effects of economic policies in its surveillance. In this context, it outlined a differentiated framework for evaluating measures designed to manage capital flows, which also allows capital controls to be introduced under certain conditions. The current focus of the initiatives to reform the international financial system is on implementing measures that have already been adopted. It is important that political support for the reform process, particularly from the G20, is maintained.

I Current issues relating to the financial system

1 The international financial system

Temporary relief through the Eurosystem's non-standard refinancing operations …,

The risk situation in the European financial system continued to be marked by the sovereign debt crisis in the euro area in 2012. Two large-volume, three-year Eurosystem refinancing operations in December 2011 and March 2012 initially helped to improve the underlying sentiment. Not only did the generous provision of liquidity alleviate the acute refinancing needs of many banks in the euro area; at the same time, it also reduced the likelihood of liquidity shortages preventing the private sector from being supplied with sufficient credit. In this context, the haircut on Greek bonds held by private investors in March 2012 did not lead to the negative spillover effects previously feared.

… but continuing uncertainty in first half of 2012

However, this period of optimism barely lasted beyond the first quarter of 2012. Political delays in the necessary economic reform process in Greece made a significant contribution to new uncertainties on the markets. In Spain, problems in the banking system worsened. Furthermore, after the allocation of the Eurosystem's long-term refinancing operations, it became clear that many Spanish and Italian banks were buying large volumes of their own governments' bonds, thereby further increasing the interdependencies between sovereign and bank risks. By contrast, foreign investors were cautious in terms of their investment in Spain and Italy as well as in banks and companies there. Even the decision taken by the governments of the euro-area countries in June in response to Spain's request to support the restructuring of the Spanish banking sector with joint funds of up to €100 billion could not ease the tensions permanently.

Increasing fragmentation tendencies in the financial system

Many investors took precautionary measures in preparation for extreme events such as further haircuts on government bonds. They invested mainly in securities considered to be particularly safe, such as German Bunds. The reduction in cross-border activities is an example of the tendency towards increasing fragmentation in the financial system. For a time, there was a risk that intrinsic momentum would continue beyond the necessary correction of past excesses in loans and debt ratios.

Markets calmed by Eurosystem announcements and political decisions

From the middle of last year, the situation on the financial markets calmed down again, not least due to the Eurosystem's announcement of its intention to purchase, for support purposes, unlimited amounts of government bonds from individual countries under certain conditions, known as outright monetary transactions (OMTs). In addition, the EU summit held in June demonstrated the political will to push through initiatives such as a single supervisory mechanism (SSM) which would lead to closer integration. In the eyes of market participants, these announcements decisively reduced the risk of extreme situations occurring. Withdrawals of capital from countries such as Spain receded as a result. Risk premiums on assets of particularly vulnerable countries narrowed. At the end of the year, other measures helped to further ease tensions: international lenders reached an agreement to further support the adjustment process in Greece, while Spain set up a resolution agency to clean up its banks' balance sheets and received the requested financial assistance to recapitalise distressed banks.

Extensive reforms essential

However, the European financial system remains vulnerable to setbacks. This is due to uncertainties surrounding an assistance programme for Cyprus, risks for banks and governments caused by a protracted economic downturn and sluggish growth, and political resistance to reforms. Nonetheless, from a fun-

damental perspective, further reforms to permanently strengthen growth potential and to shore up public finances in the individual member states are especially important. Otherwise, there is always a risk that doubts regarding the debt sustainability and integrity of the euro area will re-emerge, which would counteract the benefits of a closer economic integration in Europe, including the financial markets.

The USA and Japan also need sustainable financial policies

The United States and Japan also need to make decisive financial policy decisions. A loss of confidence in the long-term sustainability of public finances in these countries could lead to upheaval in the international financial system. Protectionist measures could also give rise to risks for efficient cross-border capital services. It is therefore important that work continues at the international level to make the clearest possible distinction in the grey area between meaningful national financial market regulation and harmful protectionism. Furthermore, internationally coordinated regulation and its consistent implementation will also make an important contribution to minimising regional fragmentation in the financial system. For this reason, the regulatory agenda agreed upon by the G20 countries should be adhered to.

2 Stability of the German financial system

Banks' resilience clearly enhanced

The European Banking Authority (EBA) standards and the Basel III capital rules, which have already been partly anticipated, have helped to improve the resilience of German banks considerably. The institutions met or surpassed the recapitalisation targets recommended by the EBA by the 30 June 2012 deadline. Overall, the core tier 1 capital ratio (as defined by the EBA) of the major German banks with an international focus is €15.5 billion higher than the target set by the EBA. The tier 1 capital ratio of these banks rose from 12.2% of the risk-weighted assets in 2011 to 14.1% at the end of the reporting year. This was chiefly achieved by raising tier 1 capital.

Securities holdings still harbour risk

German banks still have significant exposures to debtors in Spain and Italy. Despite perceptible deleveraging, large risks therefore remain if the sovereign debt crisis worsens again. In addition, legacy holdings of asset-backed securities (ABS) such as residential mortgage-backed securities (RMBS) and collateralised debt obligations (CDO) are weighing on the banking system. Although the major German banks with an international focus have significantly reduced their holdings of these securities, the credit quality of the remaining securities has deteriorated.

So far, rising house prices no threat to financial stability

Since real estate loans account for a large proportion of household debt in Germany, particular attention should be paid to the real estate markets. House prices in Germany's urban centres have accelerated in recent years. However, there are no current signs of a rapid build-up of risks to financial stability in Germany. These risks are limited due to Germany's moderate household debt compared to other European countries and its slow real estate price growth between 1996 and 2008. Germany's conservative lending standards also support this assessment. At an annual growth rate of 2%, the increase in the volume of loans for house purchase is still moderate in a long-term comparison.

Insurers still robust, but …

Overall, the German insurance sector is robust. Its resilience remains adequate. All life and health insurers passed the stress tests set by the German Federal Financial Supervisory Authority (BaFin) in order to examine the impact of a slump on the stock market, bond market and real estate market. BaFin introduced measures to improve resilience at all the non-life insurers and pension funds which failed the stress test.

… low-interest rate environment poses challenges

However, the continued low-interest rate environment is having a noticeable effect on German life insurers. This is reflected in the shrinking returns on their investments and a fall in profit sharing. So far, they do not appear to be taking greater risks in order to pay high guaranteed returns to customers. However, there

are signs that they are cautiously realigning their investment strategy. New business areas such as infrastructure and real estate financing or direct lending are being developed and extended. This is increasingly bringing insurers into competition with banks. From the point of view of financial stability, it is important that insurers' risk management systems keep pace with this development.

3 Profitability of German banks

Complex environment is affecting profitability …

In 2012, the German banking industry increasingly faced the challenge of reconciling profitability targets with stricter requirements concerning the capital base, credit quality and liquidity in a difficult environment. Although the general economic situation in Germany had a stabilising effect, not least due to the favourable conditions on the labour market and the continued impetus from the real estate market, the global economic slowdown and the temporary worsening of the sovereign debt crisis had a noticeable impact on the banks' profit and loss accounts.

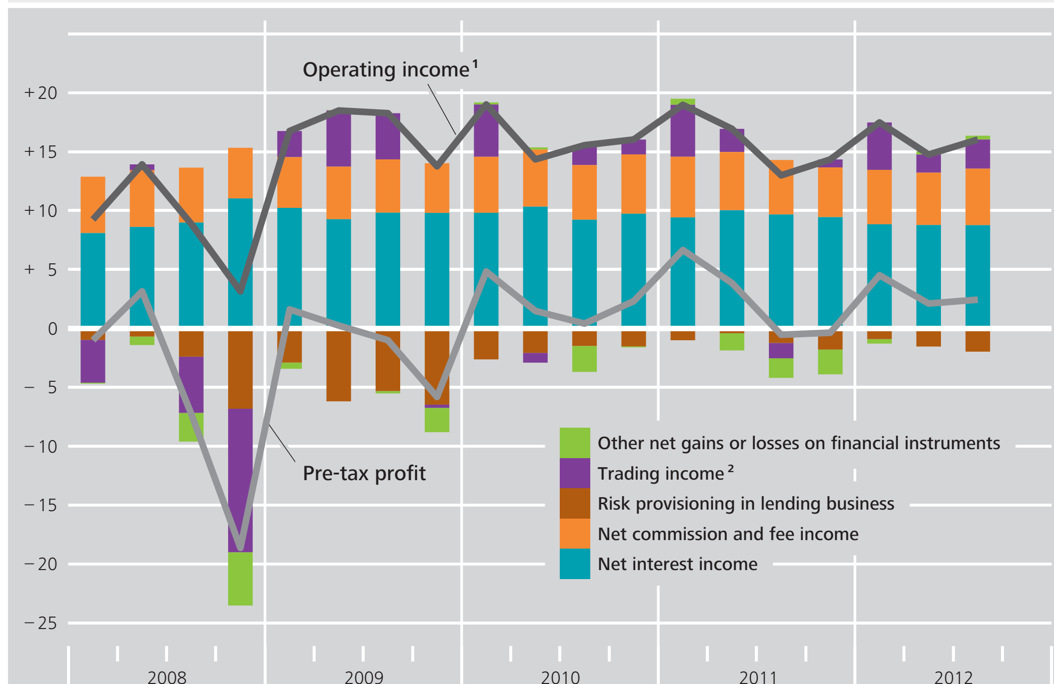
… through increasing risk provisioning and declining operating income

A visible sign of this was that risk provisioning in lending business within the group of major German banks with an international focus, which had decreased significantly in 2010 and 2011, rose between January and September 2012 by €1.8 billion compared with the same period a year earlier to reach €4.4 billion (see chart below). As a special factor, the currently elevated counterparty risk for ship financing had an especially large impact. In a nine-month comparison, operating income decreased moderately by €0.6 billion to €48.3 billion. A sharp rise in the trading result more than compensated for a distinct decrease in net interest received, which can mainly be explained by low money market and capital market interest rates and the flat yield curve. The trading result benefited from the easing of tensions on the

Earnings situation of major German banks with an international focus*

Chart 20

€ billion



* The figures cover 11 (12 up to 2010 Q3) major German banks with an international focus (big banks as well as selected Landesbanken and mortgage banks) and are based on the published intra-year group accounts in accordance with IFRS. **1** Sum of net interest income, net commission and fee income, and trading income. **2** Including net gains or losses on financial assets/liabilities designated at fair value through profit or loss.

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financial markets, which was primarily the result of non-standard Eurosystem monetary policy measures. At €13.9 billion between January and September 2012, net commissions received were also around €0.8 billion down on the same period of the previous year due to a continuing reluctance to purchase and risk aversion, particularly in retail customer business. In contrast, the item "Other net gains or losses on financial instruments", which had been seriously impaired in 2011 by losses on sales and large write-downs from the reduction in the government financing portfolio, improved considerably. Overall, in a nine-month comparison, amidst declining total assets, earnings before taxes fell by €0.9 billion to €9.1 billion.

The flatter economic profile and prolonged period of low interest rate margins may also limit earnings opportunities in 2013. Increased competition for customer deposits in classic retail banking is also to be expected. Experience from the crisis of confidence on the interbank market and the search for alternative cost-effective or stable sources of financing – not least in the light of the future liquidity requirements – is making this area of business an increasingly central element. Various structural developments in the area of corporate finance, for example, as well as increased competition from insurers in their usual areas of business, are putting German banks' earnings under pressure in the medium term. In addition to lowering costs, in the area of staff and administration, for example, restructuring measures to adapt the business model are therefore likely to become more important, even if the resulting restructuring costs reduce income in the short term.

Earnings potential also limited going forward

II International financial and monetary system – international cooperation

1 International monetary system and IMF issues

Precautionary strengthening of IMF resources

The International Monetary Fund (IMF) increased its lending capacity again in 2012 in order to be able to continue to perform its tasks and meet its members' potential need for financial assistance. A total of 38 member countries or their central banks have committed some US$460 billion through additional bilateral borrowing arrangements. A total of around US$360 billion in credit lines has been agreed by the end of 2012. The Bundesbank has contributed by committing to a new €41.5 billion bilateral credit line with the IMF for a maximum period of four years. These new bilateral credit lines are to be understood as an exceptional and temporary precautionary increase in IMF resources to overcome the global financial and debt crisis. Over the medium term, the IMF should once again solely use its quota resources for its financial assistance, resorting only in emergencies to the multilateral New Arrangements to Borrow (NAB).

IMF liquidity comfortable

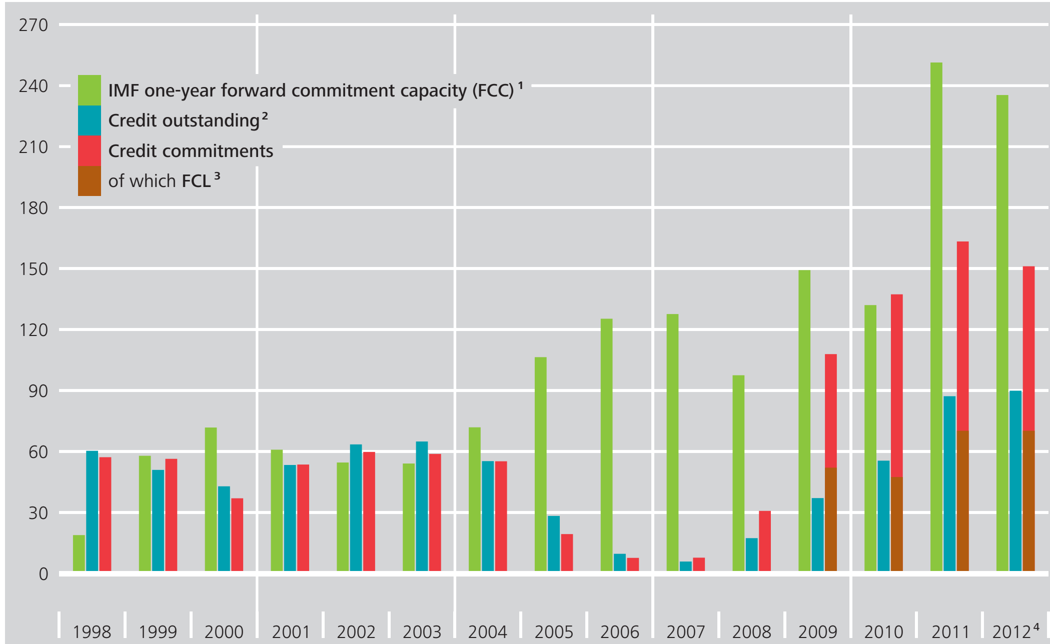
As of end 2012 – as was the case a year earlier – a total of around 250 billion Special Drawing Rights (SDR) were available to the Fund for new lending over the next 12 months (see chart on page 84). This includes bilateral borrowing arrangements concluded with the Fund since 2009 and the multilateral NAB, which have been continuously activated since April 2011. Not included are the additional bilateral borrowing arrangements agreed in 2012 since these can only be drawn upon once IMF liquidity has fallen below SDR100 billion.

The expansion of IMF lending business slowed down significantly in 2012. Given repayments

IMF liquidity and lending

Chart 21

SDR billion, end-of-year levels



Source: IMF. **1** Comprises the usable resources made up of quota resources, resources from the New Arrangements to Borrow (NAB) and bilateral borrowed resourcess less a prudential balance. **2** Large loans in 1998 to Brazil; in 1999 to Turkey; in 2000 to Argentina; in 2002 to Brazil and Turkey; in 2003 to Argentina; in 2008 to Hungary and Iceland; in 2010 to Greece und Ireland; in 2011 to Portugal; in 2012 to Greece. **3** Flexible Credit Line; agreed with Mexico, Poland and Colombia. **4** Forward commitment capacity excluding the bilateral credit arrangements committed and, in large part, already agreed in 2012; also excluding the quota increase and NAB roll-back adopted in 2010 but not yet implemented.

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Volume of outstanding IMF credit hardly increased

exceeding SDR12.2 billion, the volume of outstanding loans rose by only around SDR2.7 billion net to SDR90 billion. However, at the same time, a new all-time high was reached. Total commitments fell by more than SDR10 billion from the previous year following the termination of some programmes. Of the currently 18 ongoing IMF programmes, nearly 60% of the lending volume is accounted for by the IMF's three largest borrowers (Greece, Portugal and Ireland; see chart on page 85). The Bundesbank has contributed SDR7.5 billion to IMF lending. As of 31 December 2012, its net claims on the IMF stood at €8.3 billion.

2010 quota and governance reform not completely ratified

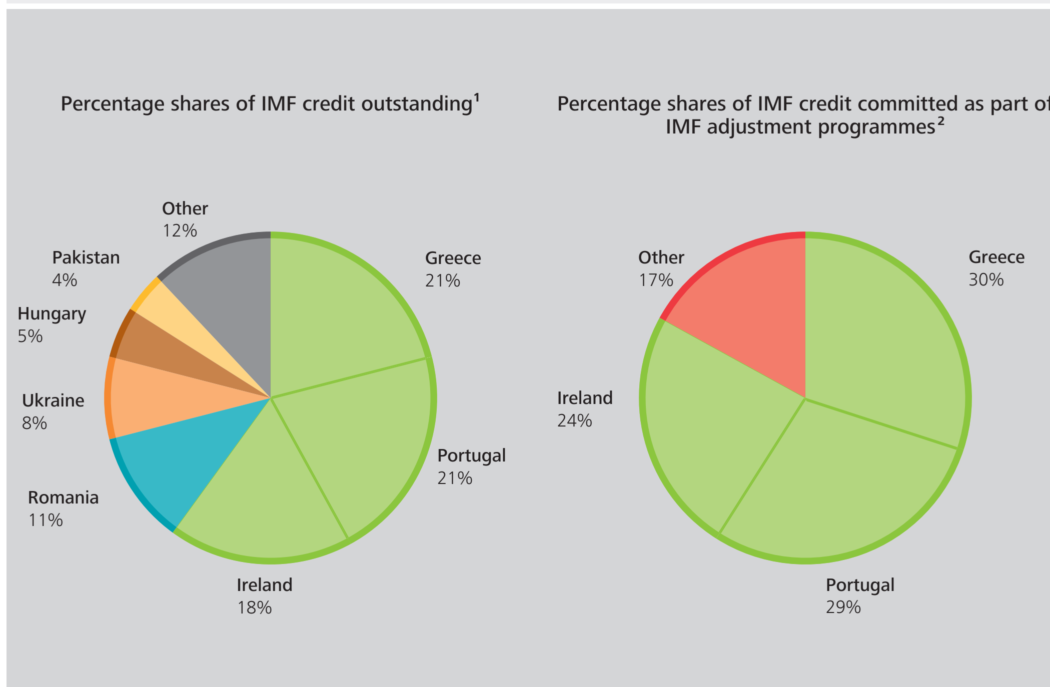
The ratification of the quota and governance reform adopted by the IMF Board of Governors in November 2010, which contains a doubling of the IMF quota volume and a reform of the procedure to fill the IMF Executive Board, was not completed by end-2012. The reforms will enter into force once member countries which together unite 85% of voting rights have ratified them. Germany – like most other EU member states – ratified both measures in a timely manner. For Germany, the doubling of the overall IMF quota volume will lead to a rise of its quota – and thus the Bundesbank's required contribution to the IMF – from SDR14.6 billion to SDR26.5 billion. By contrast, Germany's quota share in the IMF will fall from 6.1% to 5.6%.

Renewed review of the IMF quota formula and 15th General Quota Review

The aim of the review of the IMF quota formula, which was also adopted in the context of the quota and governance reform, is for quotas to more accurately reflect member countries' position in the global economy. Although this discussion seems rather technical on the surface, it could have far-reaching political implications since the design of the quota formula impacts on quota shares and thus the financing and voting shares within the IMF. Any changes in the IMF quota formula could already have an impact on member countries' quota shares in the context of the forthcoming 15th

Outstanding and committed IMF credit tranches Chart 22

As at end-2012



Sources: IMF and Bundesbank calculations. **1** Total of outstanding credit tranches from ongoing and completed programmes. **2** Amounts of all ongoing credit programmes from the General Resources Account as at 31 December 2012 from which credit tranches can still be disbursed. Commitments from Flexible Credit Lines (FCL) are not included since these are not associated with specific adjustment programmes.

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General Quota Review, which is scheduled to be completed by January 2014.

Strengthening of IMF surveillance and advisory function adopted

Over the course of 2012, the IMF took further steps to strengthen its surveillance which, as one of the IMF's core tasks, is an instrument of crisis prevention. On the basis of the outcome of the Triennial Surveillance Review conducted in October 2011, in July 2012 the IMF Executive Board adopted a new surveillance guideline, the Decision on Bilateral and Multilateral Surveillance (also called "Integrated Surveillance Decision"). This was an adjustment to the legal basis for the IMF's economic analysis and advice in the light of experience gained during the financial crisis. The new decision is an advancement of the 2007 Decision on Bilateral Surveillance and incorporates financial stability aspects as well as a multilateral perspective more strongly in the IMF's bilateral surveillance activities with its individual member countries. It must be emphasised that, nonetheless, no country can be obliged to subjugate its domestic stability to the goal of global stability. This underscores the particular importance of domestic stability and national economic policies geared towards it, something to which the Bundesbank had attached great importance during the discussions.

New IMF surveillance reports

Moreover, during the reporting year the IMF presented several new publications designed, in particular, to promote cross-country analysis in future and present a compact and coherent picture of economic developments and its policy recommendations. Thus, for instance, the Fund has consolidated the core statements of its global analysis products (World Economic Outlook, Global Financial Stability Report, Fiscal Monitor) in an additional report which also contains aspects of the IMF's business policy (IMF Managing Director's Global Policy Agenda). The Fund has also published a report on the cross-border impact of national economic policies and economic developments for several selected countries and the euro area

(Spillover Report). It has also created a new type of cross-country analysis of the external stability of key economies, known as the Pilot External Sector Report. In order to strengthen its financial sector surveillance, in September 2012 the IMF published a Financial Surveillance Strategy, the core objectives of which are to strengthen the analytical foundation of the "macrofinancial risk analysis", to improve financial sector surveillance, and to increase the traction of the IMF's policy advice.

New IMF view on dealing with capital flows

In autumn 2012, the IMF published its Institutional View on Capital Flows. This is intended to provide a consistent framework for IMF surveillance to evaluate individual member countries' policies related to capital flows. The aim of this is to strengthen the stability of the international financial system. The IMF's new approach requires the measures deployed to be transparent, targeted, temporary and, wherever possible, non-discriminatory. Measures designed to manage capital flows should not be used as a means of avoiding or postponing necessary exchange rate corrections or adjustments to a country's domestic economic policy.

2 International cooperation

New G20 Growth and Jobs Action Plan adopted

Under the Mexican presidency, in 2012 the G20 countries undertook efforts to contain acute risks in the international financial system and at the same time to improve the long-term conditions for growth and prosperity in order to build up new confidence in the financial markets. At the Los Cabos G20 summit, a new Growth and Jobs Action Plan was adopted. It focuses major attention on short-term risks to the global economy. Several countries have also indicated a readiness to adopt additional measures to prop up demand should the economic situation deteriorate significantly. In view of the fiscal policy consolidation goals committed to by the G20 countries at the Toronto G20 summit in 2010, the advanced economies expressly pledged to achieve the medium-term goals of stabilising the debt ratio and to continue in this endeavour after 2016. In addition, among other measures, the summit called for market-based exchange rates to reduce external imbalances and also growth-promoting structural reforms. During the debate, Germany spoke out in favour of policies geared towards reforms and sustainable public finances so that, amongst other things, confidence could be restored in the shorter term, too. It further held that a strengthening of domestic demand would need to be accomplished through market-driven processes and a growth-friendly economic policy. Work on the "G20 Framework for Strong, Sustainable and Balanced Growth" (the "Framework") was continued.

Stricter assessment procedure for commitments to policy actions introduced

In addition to the Action Plan, leaders agreed to set up a more rigorous procedure to review commitments to policy actions. This is designed to help improve the Mutual Assessment Process as part of the "Framework" and to regularly assess progress in meeting commitments and goals using uniform benchmarks. At the G20 meeting of finance ministers and central bank governors in November 2012, agreement was already reached on indicators to assess policy implementation in fiscal, monetary and exchange rate policy.

Implementation and monitoring of agreed financial sector reforms

The Financial Stability Board (FSB), which also coordinates the G20 financial sector reform agenda, is continuing to work on making the financial system more robust to systemic crisis and containing the costs of potential crises. The focus is increasingly being placed on implementing individual reforms and monitoring their implementation. These reforms are being implemented in the EU member states largely through the intermediate step of EU directives and regulations.

Progress being made in implementing new capital rules and derivatives market reforms

Although the transposition of the new international capital rules for banks (Basel III) into national law was not fully completed globally by the beginning of 2013, it is at an advanced stage in Europe. In order to enhance transparency in over-the-counter (OTC) derivatives markets and to make them safer by reducing coun-

Measures to strengthen the financial system

Germany's lower house of parliament, the Bundestag, passed the Financial Stability Act *(Finanzstabilitätsgesetz)* on 25 October 2012. The Act assigns responsibility for macroprudential oversight in Germany to the German Financial Stability Committee *(Ausschuss für Finanzstabilität).* It consists of three representatives from each of the (presiding) Federal Ministry of Finance, the Federal Financial Supervisory Authority *(Bundesanstalt für Finanzdienstleistungsaufsicht,* or BaFin) and the Bundesbank, plus a non-voting representative of the Federal Agency for Financial Market Stabilisation *(Bundesanstalt für Finanzmarktstabilisierung,* or FMSA). The Bundesbank has been assigned a key role. It has been given responsibility for the ongoing analysis of the stability of the financial system and can propose warnings and recommendations to be decided and issued by the German Financial Stability Committee to counter existing risks.

Furthermore, since the onset of the crisis, a raft of measures have been agreed to strengthen the international financial system within the framework of the G20. These measures continued to be implemented through European legislative measures in 2012.

The EU regulation on over-the-counter (OTC) derivatives, central counterparties and trade repositories (the European Market Infrastructure Regulation, or EMIR) was adopted on 4 July 2012. This provides for clearing through central counterparties as well as the reporting of derivative transactions to central trade repositories in order to reduce existing systemic risks in OTC derivatives trading and to gain a better insight into the market.

Greater transparency is also a reason for revising the Markets in Financial Instruments Directive (MiFID). Therefore, the transparency regime for shares is to be extended to cover further financial instruments and a new category of trading venue is to be introduced. In addition, the G20 agreement on trading standardised OTC derivatives on stock exchanges or electronic trading platforms is to be implemented. Moreover, the MiFID will regulate high frequency trading. In anticipation of this, the German Federal Government began the legislative procedure for its Act on the Prevention of Risks and Abuse in High Frequency Trading *(Gesetz zur Vermeidung von Gefahren und Missbräuchen im Hochfrequenzhandel)* in 2012.

The EU regulation on credit rating agencies has been revised for a second time with an eye to further improving rating assessments. The independence of rating agencies has been strengthened and the transparency of ratings has been increased, while the G20 agreement to reduce reliance on external ratings has also been implemented.

Owing to the EU regulation on short selling and certain aspects of credit default swaps (CDS), which has been in force since 1 November 2012, net short positions in shares and sovereign bonds must now be reported daily. Moreover, the naked short selling of these securities as well as uncovered CDS on sovereign debt is prohibited.

In 2012, the European Commission carried out a consultation on a possible recovery and resolution framework for financial institutions other than banks for the purpose of implementing a corresponding G20 agreement. The goal is to enable such institutions to be resolved without endangering the stability of the financial system or burdening taxpayers.

Despite extensive regulatory initiatives, trust in the financial system suffered further setbacks in 2012. In the light of the alleged manipulation of the LIBOR and EURIBOR benchmarks for interbank lending rates, the European Commission amended its original proposal for a regulation and a directive on insider dealing and market manipulation on 25 July 2012, thereby making the manipulation of benchmarks a criminal offence.

terparty credit risk and operational risk, market participants will be required in future to settle a large part of their OTC transactions through central counterparties (CCPs) and to report them to central trade repositories. In Europe, these G20 objectives are being implemented by the EU Regulation on over-the-counter (OTC) derivatives, central counterparties and trade repositories (European Market Infrastructure Regulation: EMIR) (see also the box on page 87).

Public consultation on regulating the shadow banking system

Recommendations on how regulators should deal with what is known as the shadow banking system are still under development. Whereas recommendations on the regulation of money market funds are already on the table, the FSB still needs to adopt the rules for securitisations and to pass them on to the G20. The regulatory treatment of additional types of funds and financial enterprises which are considered part of the shadow banking system, the design of regulation for securities lending transactions and the interaction between regulated commercial banks and the shadow banking system are all still in need of fleshing out. In November, the FSB issued regulatory proposals for public consultation and plans to present a full package of recommendations for regulating the shadow banking system by September 2013.

SIFI framework to be extended to additional actors

Progress in extending the framework for dealing with systemically important financial institutions (SIFIs) is being made. In the past year, the G20 adopted a Basel Committee framework for dealing with domestic SIFIs. Insurance supervisors presented a methodology to identify globally systemically important insurers along with initial options for regulating them. They intend to publish finalised proposals, along with a list of global systemically important insurance companies, in April 2013. By autumn, rules to identify and regulate SIFIs which are neither banks nor insurers nor market infrastructures should be on the table, too.

Institutionalisation of FSB

In June 2012, the Los Cabos G20 summit approved the FSB's proposals for its institutionalisation and greater financial autonomy. At the beginning of the year, the FSB has, by creating an association under Swiss law, established its own legal personality and has concluded a financing and services agreement with the Bank for International Settlements (BIS); this ensures that FSB will maintain its strong links with the BIS, too.

Banking supervision

At the global level, the Basel Committee on Banking Supervision (BCBS) concluded a variety of initiatives. In order to draw on the key lessons learned from the financial crisis, the BCBS revised the Core Principles for Effective Banking Supervision, combining them into a single comprehensive document as a kind of constitution for supervisors. This "constitution" is designed to help to safeguard financial stability, inter alia by obliging governments to ensure that a macroprudential perspective is applied to microprudential supervision. Furthermore, it envisages a stricter supervisory focus on systemically important banks, also adding an effective resolution regime to the available crisis management tools. On top of this, the BCBS has created a framework for dealing with banks that are categorised as being systemically important at the domestic level. This framework will require national authorities to assess banks' systemic importance once a year and, if need be, to impose capital surcharges in the form of core tier 1 capital.

Work at the European level focused on three key areas: first, the adoption of the Capital Requirements Regulation (CRR) and the Capital Requirements Directive IV (CRD IV). Following intensive negotiations, the Council and the European Parliament agreed on a political compromise package at the end of February 2013 encompassing what had been, until recently, the contentious issues of remuneration, the possibility of using macroprudential instruments at national discretion (known as the "flexibility package"), capital buffer requirements for systemically important institutions, country-by-country reporting requirements and the powers of the European Banking Authority (EBA). Second, the groundwork was laid for a European banking supervisor in which prudential responsibilities will be pooled as part of a comprehensive banking union. The ECB, in cooperation with national supervisory authorities, will set up a single supervisory mechanism with the aim of achieving effective supervision and enhancing confidence in euro-area credit institutions. Third, the 2012 EU-wide capital exercise coordinated by the EBA was another measure that tied up capacities. In the end, all 12 of the German institutions that took part in the exercise exceeded the minimum core tier 1 capital ratio of 9% as at 30 June 2012.

At the national level, the Bundesbank was involved in the preparations for transposing the CRR and CRD IV into the German Banking Act (Kreditwesengesetz), focusing on the Supervisory Review and Evaluation Process, the capital adequacy of banks and corporate governance. The Bundesbank put a lesson learned from the crisis into practice, giving its ongoing monitoring activities a more preventive and targeted edge by gearing them towards systemically important banks. In 2012, the Bundesbank was again responsible for the ongoing monitoring of a total of more than 2,000 banks, around 1,500 financial services institutions as well as 33 payment institutions and e-money institutions, evaluated all of the incoming information on these institutions, conducted 251 on-site audits, prepared risk profiles of all the banks under its supervision and notified the Federal Financial Supervisory Authority (BaFin) of possible legal infringements and undesirable developments.

I Development of international prudential supervisory standards

1 Impact study on Basel III

Basel III implementation monitoring

Since the beginning of 2011, semi-annual data surveys have been conducted to analyse continuously the probable impact of the Basel III requirements on the banking industry (Basel III implementation monitoring); 33 German credit institutions currently take part in these surveys on a voluntary basis. As part of its activities in the BCBS' working groups, the Bundesbank helps to prepare the reports and has also conducted studies at the EU level for the EBA. It also interacts with the German institutions and evaluates the national results. The anonymised results are published semi-annually.

2 Reviewing the implementation of the Basel regulatory framework

Reviewing the implementation of the Basel regulatory framework at three levels

The BCBS is using comparative analysis to ensure that the capital rules agreed upon in Basel II, Basel 2.5 and Basel III are truly regarded as a global standard and apply with an equal degree of intensity to all banks worldwide. The three levels of the study are as follows.

Level 1

Level 1: self-assessments by member jurisdictions of whether and when the rules were implemented.

Level 2: assessment of whether transposition into the national law of the member jurisdictions is consistent with the requirements of the Basel frameworks.

Level 3: impact assessment of the application of the Basel rules at banks and by supervisors on the calculation of banks' capital ratios.

Level 2

For Level 2, a BCBS assessment team conducted a regulatory consistency assessment in the United States, Japan and the European Union in 2012. Implementation in Japan was rated to be "compliant" overall. In the terminology used by the BCBS, being classified as "compliant" means that a jurisdiction has largely implemented the internationally agreed capital rules at the national level.

As the respective implementing legislation could not be finalised in either the EU or the USA in 2012, the BCBS was unable to assign an overall grading for these jurisdictions. The preliminary report for the EU came to the conclusion that the draft European legislation was "compliant" or "largely compliant" with the Basel rules in 12 out of 14 areas. However, the differences in the remaining two areas (the definition of capital and the use of internal models) might turn out to be significant. The BCBS will assign an overall grading once the legislative procedures in the EU and the USA have been concluded.

Level 3

The BCBS' Level 3 assessments focus on how and in what amount banks calculate their risk-weighted assets (RWAs) when applying the Basel capital rules. For this purpose, two expert groups are reviewing the different calculation methods used for RWAs in the trading book and the banking book at selected banks operating internationally. Inconsistencies in the way banks calculate RWAs would be unacceptable if they result from variations in the interpretation or application of the rules rather than from actual differences in the riskiness of the positions. Two institutions are taking part for Germany.

Initial results of the Level 3 assessments of banks' trading books and banking books are available, although some data are still preliminary. It would appear that, although a significant fraction of the differences observed are risk-based and thus of an economic nature, there

are still inexplicable variations between institutions in some of the positions covered by the assessment. The next step will be to review the extent to which these variations are covered by the international standards.

The EBA is conducting a similar assessment at the European level.

3 Basel Core Principles for Effective Banking Supervision

Lessons learned from the financial crisis – Core Principles revised

The revised Core Principles for Effective Banking Supervision came into force following the September 2012 International Conference of Banking Supervisors held in Istanbul. The BCBS has thus transposed the lessons learned from the financial crisis into a universal set of principles for banking supervisors and credit institutions. The Core Principles are authoritative for all supervisors and all of the banks that they oversee, regardless of the size and complexity of the banks' business models or of the underlying economic and legal framework. The consistent application of the principle of proportionality makes this universal approach possible. Although the revision of the Core Principles has ultimately affected all of the relevant areas of prudential supervision, four key topics stand out. First, financial stability is to be better safeguarded by obliging governments to ensure that a system-wide, macroprudential perspective is applied to the microprudential supervision of banks. Second, even without creating a separate principle for systemically important banks (SIBs), the new Core Principles make it clear that the intensity of supervision and resources deployed, and the requirements defined for each bank, must be commensurate with that particular bank's risk profile and systemic importance. In particular, it is not sufficient for supervisors to merely satisfy themselves that SIBs comply with the prudential standards. Rather, supervisors need to evaluate the risk situation of these banks on an ongoing basis and place the highest demands on their internal risk management processes. Third, the new Core Principles require governments to put in place arrangements for crisis management and to define clearly the roles and mandates of banking supervisors, finance ministries, central banks and resolution authorities in accordance with the Key Attributes of Effective Resolution Regimes for Financial Institutions developed by the Financial Stability Board (FSB). This includes formulating clear-cut powers of intervention in order to gauge and thus mitigate the impact of a bank resolution on the financial sector and the real economy. Fourth, given that the financial crisis has illustrated yet again that banks with an underdeveloped corporate culture and management shortcomings might potentially pose a risk to themselves and to the financial system as a whole, the Core Principles emphasise the importance of proper corporate governance for the soundness and stability of a bank. The existing corporate governance criteria contained in various sections of the earlier Core Principles have been brought together to create a separate new principle and rounded off with the BCBS' recommendations on the Principles for enhancing corporate governance from the year 2010.

4 New standards for systemically important banks

Mandate to extend standards for SIBs

Following the publication of the framework for dealing with global systemically important banks (G-SIBs) in the autumn of 2011, the G20 summit held in Cannes on 3 and 4 November 2011 mandated the BCBS to develop a regulatory concept for SIBs at the domestic level.

Framework for dealing with D-SIBs

This mandate led to the publication in June 2012 of the BCBS' consultative document on a framework for dealing with domestic systemically important banks (D-SIBs). Under these rules, national authorities will assess local institutions' systemic importance once a year and, if need be, will impose capital surcharges in the form of core tier 1 capital. As with the G-SIB

framework, the assessment of whether a bank is systemically important depends on the extent of the damage that might result from its failure. The assessment is based on the following factors: size, interconnectedness, substitutability and complexity. However, the reference system used in the D-SIB framework is not the global but the domestic financial system and economy. Another difference compared with the G-SIB framework is that the D-SIB rules give national authorities scope to exercise discretion in implementation: both the parameters for identifying D-SIBs as well as the type and scope of the supervisory measures for institutions identified as D-SIBs can be adapted to take account of country-specific factors.

Implementation envisaged by 2014

The finalised D-SIB framework was published to coincide with the Meeting of G20 Finance Ministers and Central Bank Governors in Mexico City on 4 and 5 November 2012, and is to be implemented by 1 January 2014. Even greater international cooperation and coordination will be required in future, particularly concerning banks that have D-SIB status in more than one country.

5 Liquidity coverage ratio

2010 framework revised

On 14 December 2012, the BCBS endorsed a number of amendments to the Basel III liquidity framework[1] with respect to the liquidity coverage ratio (LCR), thereby largely finalising the specific set of rules and requirements. The amendments not only complete the hitherto unfinished rules from 2010 but also reflect the outcome of the observations and analyses during the review period agreed in 2010. These amendments are designed to ensure the practical application and smooth implementation of the new rules by banks and supervisors, and to prevent undesirable spillover effects (eg on the supply of credit to the real economy). The agreement to stagger the phase-in of the new standard takes account of this concern. Amendments were also made to the rules governing high quality liquid assets (HQLA) and to the calculation of the total net cash outflows to be covered. The BCBS also explicitly stated that it would be entirely appropriate for institutions to use their stock of HQLA during periods of stress, thereby temporarily falling below the supervisory minimum requirement under certain circumstances.

Work in 2013

Some aspects of the LCR, chiefly the definition of the market criteria for liquid assets and the disclosure rules, are to be specified in greater detail in 2013. The BCBS will also conduct further investigations into the interactions which occur at the point where supervisory liquidity rules meet the varying monetary policy regimes around the world. Apart from that, work will focus on finalising the specification of the second minimum requirement in the Basel liquidity framework, namely the net stable funding ratio (NSFR).

1 Basel III: International framework for liquidity risk measurement, standards and monitoring, December 2010 (BCBS188).

II Work at the European level

1 CRR and CRD IV

Trilogue negotiations between the Council and the European Parliament

After the Council and the European Parliament (in this case, the Committee on Economic and Monetary Affairs) had in May 2012 each agreed their position with regard to the proposals made by the European Commission in July 2011, trilogue negotiations commenced on the Capital Requirements Regulation (CRR) and the Capital Requirements Directive IV (CRD IV).

Political consensus reached

The trilogue negotiations failed to reach an agreement in 2012. The Council and the European Parliament did, however, agree on a compromise package concerning the CRR and CRD IV at the end of February 2013. This agreement encompasses what had been, until recently, the contentious issues of remuneration, the possibility of using macroprudential instruments at national discretion (known as the "flexibility package"), capital buffer requirements for SIBs, country-by-country reporting requirements and the powers of the EBA. Outstanding technical issues still need to be resolved before the Council and the European Parliament can reach a final deal.

Supervisory reporting framework largely harmonised by EBA

The EBA's Implementing Technical Standards (ITS) on supervisory reporting requirements for institutions will largely harmonise the supervisory reporting framework for own funds, accounting information, large exposures, mortgage losses, liquidity coverage and leverage ratios. Based on the CRR, the EBA will develop uniform reporting formats, frequencies and dates as well as IT solutions which, following adoption of the ITS by the European Commission, will basically be mandatory for all of the institutions covered by the CRR.

2 Crisis management

Commission proposal for a directive on crisis management

The European Commission's proposal for a framework for the recovery and resolution of credit institutions and investment firms, published on 6 June 2012, is designed to aid the EU-wide implementation of the FSB's international standards on resolution regimes.[2] The framework put forward by the Commission consists of three pillars: preparation and prevention, early intervention, and resolution. The preparation stage focuses on recovery and resolution planning and on removing impediments to resolvability, eg by allowing authorities to intervene in a bank's organisational structure. Furthermore, the catalogue of early intervention tools is to be expanded and will include, for example, the possibility of appointing a special manager. On the topic of resolution, the proposed rules set out, *inter alia,* the preconditions for resolution, the possible resolution tools such as bail-in capital and bridge bank solutions, and the resolution powers of authorities. The draft legislation also proposes the establishment of a European System of Financing Arrangements that would permit the mutualisation of national restructuring and resolution funds. The EBA has already begun work on the future practical applicability of these initiatives, publishing its first discussion paper on a template for recovery plans for consultation in 2012.

3 Capital exercise and EU-wide stress test

2012 EU-wide capital exercise

In the business year under review, the Bundesbank and BaFin jointly contributed to the final report on the EU-wide capital exercise coordinated by the EBA in 2012. After deduction of the sovereign capital buffer, all 12 German institutions in the sample had achieved the minimum core tier 1 capital ratio of 9% as at 30 June 2012. The sovereign capital buffer is the capital buffer for fair value losses on debt exposures vis-à-vis member states of the European Economic Area as at 30 September 2011. The average ratio of the participating German institutions was 10.7%, which meant that, taken together, they exceeded the EBA's minimum capital requirements by €15.5 billion. The capital exercise found that, taking account of portfolio changes, the German institutions in the sample had strengthened their capital base by an aggregate of around €22 billion, while the participating EU banks as a whole had improved their capitalisation by more than €200 billion.

2 Key Attributes of Effective Resolution Regimes for Financial Institutions, October 2011.

4 Banking union

The European Commission believes that the establishment of a banking union[3] will help to resolve the financial crisis and strengthen financial stability in Europe.

Ecofin reaches agreement following intensive negotiations

The first step on the path to establishing a banking union was taken when the Ecofin Council meeting in Brussels on 13 December 2012 agreed a position – confirmed the following day by the heads of state or government – to create a European supervisor (the single supervisory mechanism, or SSM) composed of the ECB and national supervisory authorities. This general stance taken by the Council forms the basis for negotiations with the European Parliament. The aim is to adopt a corresponding legal framework as quickly as possible. Ideally, the new European supervisor should be fully operational by 1 March 2014. Once the SSM has been established, the European Stability Mechanism (ESM) is to be given the power to directly recapitalise distressed banks from euro-area countries participating in the SSM, provided that certain conditions are met.

European banking supervision as part of a comprehensive banking union

Generally speaking, a single supervisor may be a useful addition to European monetary union and may strengthen its institutional framework. It likewise makes sense in the light of the distinct cross-border financial interlinkages between European institutions and, based on a comprehensive pool of information, will make it possible to better identify risks that pose a threat to, or emanate from, the banking system at an early stage. Any incentive to go easy on domestic banks owing to national considerations will be eliminated.

A single supervisory mechanism as a core element of a comprehensive banking union nonetheless harbours the risk of communitising the fallout from economic and fiscal policy misalignments, in particular excessive state financing by national banking systems and misdirected national economic policies. Efforts to undermine the no bail-out clause set out in the European treaties in this way should be prevented at all events. This calls for appropriate regulation that curbs excessive risk-taking in the banking sector, not least of all in sovereign financing. A restructuring and resolution mechanism could also be introduced to ensure that banks' shareholders and creditors bear the initial brunt of the risks. European-level supervisors ought to be given the power to intervene in national fiscal (and economic) policies in case major misalignments at the national level threaten to have significant cross-border spillover effects. Finally, it is essential that the Council and the European Parliament, in their ongoing negotiations, design the single European supervisor as a robust and effective mechanism for monitoring institutions, an undertaking which will imperatively involve working extremely closely with national supervisors, not least in view of the tight schedule. Setting up the single supervisor merely as a means to an end in order to give banks direct access to ESM funds would be counterproductive. It would be consistent in terms of liability and control if the European level were to assume liability only for new risks which arise after the introduction of the SSM and the new regulations.

Amendments to EU primary law required to avoid conflicts of interest

The Council has made use of a number of aids to achieve its political ambition of setting up a European supervisor at very short notice and without amending EU primary law. The intention is to alleviate the obvious conflicts between the extensive transfer of banking supervisory functions to the ECB and the objective of strictly separating monetary policy and supervisory functions while maintaining the independence of the ECB and its decision-making bodies. The interests of non-euro-area member states are to be taken into consideration at the same time. The aids that the Council has chosen for this purpose will lead to complicated and, in part, legally problematic decision-making processes in which, should a

3 See the proposals made by the European Commission and the ECB in June 2012: European Commission, The banking union, MEMO/12/413, 6 June 2012.

crisis arise, not only the national supervisors concerned but also several other bodies will need to reach a decision within an extremely short period of time. This arrangement also blurs the lines of responsibility and accountability as the establishment of a mediation panel makes it unclear who has the right of final decision. Under current EU primary law, the Governing Council of the ECB has this right. Moreover, in spite of the organisational aids that have been used, there is still the risk that monetary policy and supervisory decisions will not be made independently of one another.

In the Bundesbank's view, it is essential that European banking supervision – whether within the ECB or not – be placed on a sounder legal basis in the near future, a task that will require amendments to EU primary law.

Alignment of liability and control ensured through single resolution and restructuring mechanism

Another equally important element of the banking union, alongside the SSM, is a single resolution and restructuring mechanism, which the heads of state or government also wish to see anchored in European legislation by the end of the electoral term of the European Parliament in 2014. From the Bundesbank's point of view, the temporal alignment of the single supervisory and resolution regimes is important to ensure that liability and control remain indivisible and at the same level. Given the potential fiscal repercussions that its decisions might entail, the European-level resolution and restructuring mechanism should not be based at the ECB so as to prevent both conflicts of interest and an excessive concentration of power.

III Development of the national prudential supervisory standards

1 CRD IV Implementation Act

Transposition of international standards into the Banking Act

The CRD IV Implementation Act (*CRD IV-Umsetzungsgesetz*) will transpose the CRD IV into the German Banking Act. In addition, amendments to the provisions of the Banking Act will remove the legislative content which will become directly applicable law in EU member states when the CRR enters into force. For this reason, the CRD IV Implementation Act is to enter into force at the same time as the CRR and CRD IV.

Supervisory Review and Evaluation Process

The amendments to the Banking Act will also strengthen the Supervisory Review and Evaluation Process, with the focus principally on preventive supervisory activities. The new provision, which will also implement the international standards for more intensive supervision of SIBs, reflects the lessons learned from the financial crisis with regard to the significance of SIBs in terms of financial stability and the risks they entail in this respect.

Capital adequacy

As the provisions of the CRR will be directly applicable in Germany, the Banking Act rules relating to capital adequacy will be reduced to the requisite minimum. However, requirements for the creation of capital buffers will be added; these will ensure that institutions have a buffer above the minimum capital requirement that enables them to absorb any losses which may be incurred in difficult periods.

Corporate governance

The excessive concentration of risk in the financial system, which played a crucial role in the collapse of the financial markets in the autumn of 2008, was partly ascribable to a number of flaws and errors in corporate governance. Therefore, the Banking Act amendments will put a positive gloss on the requirements for senior managers for the first time. The duties

which arise from their overall responsibility for the institution will be set out explicitly. More exacting obligations will also be placed on the supervisory body. Among other things, the new provisions will stipulate that the supervisory body must monitor senior managers' adherence to supervisory rules. To assist it in its work, the supervisory body must, as a general principle, appoint a risk committee, an audit committee, a nomination committee and a remuneration control committee, to be made up of members of the supervisory body. The principle of proportionality will be taken into account, for instance, in the fact that institutions with a supervisory body composed of less than six members will be exempt from the duty to form committees, or in the fact that the supervisory authority may exempt an institution from this duty upon a reasoned request.

Sanctions

Furthermore, there will be considerable additions to the list of sanctions available. In future, breaches of administrative regulations may be punished by means of a fine of up to €5 million (currently no more than €500,000); for legal persons this amount may rise to a maximum of 10% of net annual revenue or double the additional proceeds generated through the infringement. Legally enforceable measures and fines imposed on institutions or senior managers will be published on BaFin's website.

2 Third Financial Market Stabilisation Act

Protection against systemic banking crises extended – financial sector to bear greater share of costs

Against the backdrop of the ongoing financial and sovereign debt crisis in the EU, the Financial Market Stabilisation Fund *(Sonderfonds Finanzmarktstabilisierung,* or SoFFin) has been given the temporary option of undertaking measures under the Financial Market Stabilisation Fund Act *(Finanzmarktstabilisierungsfondsgesetz)* until 31 December 2014. The intention is for SoFFin to provide financial assistance if need be to credit institutions which request it. A key new feature of the Act is that, in future, it will also be possible to use the bank levy contributions to cover any losses resulting from rescue measures. If the Restructuring Fund has insufficient resources to cover losses, the Fund is to impose special contributions on the institutions subject to the bank levy so that it can fulfil its settlement obligation.

3 Amendments to the Minimum Requirements for Risk Management

Development of risk management requirements

In revising the Minimum Requirements for Risk Management *(Mindestanforderungen an das Risikomanagement,* or MaRisk), the banking supervisors' principal aim was to take account of international regulatory requirements. The newly introduced risk control function essentially covers tasks and processes which were already enshrined in the previous MaRisk rules. However, what is new is the requirement that this function should be headed by a person at a sufficiently high level of management who will fulfil this responsibility in exclusive fashion subject to the principle of proportionality. The aim is to give sufficient weight to risk considerations through this person's involvement in key risk policy decisions taken at management board level.

The new requirements placed on the compliance function are geared towards ensuring the implementation of effective procedures for complying with the legal rules and stipulations that are material to the institution. The more nuanced requirements applying to systems for the internal netting of liquidity costs, benefits and risk are designed to ensure that institutions create the necessary degree of transparency in this area, thereby avoiding misguided incentives in corporate governance. All in all, therefore, the requirements pertaining to internal netting systems for liquidity costs, benefits and risk are more closely aligned to the principle of proportionality.

Furthermore, the requirements for the capital planning process have been expanded in the interests of early identification of capital needs.

4 Draft Circular on the Minimum Requirements for the Design of Recovery Plans

Consultation on MaSan

In 2012, BaFin and the Bundesbank drew up a draft Circular on the Minimum Requirements for the Design of Recovery Plans *(Mindestanforderungen an die Ausgestaltung von Sanierungsplänen,* or MaSan), and published a corresponding consultative document in November. Recovery planning serves as preparation for coping with future crisis situations and is intended to make credit institutions more resilient. Recovery planning is also an essential component of the relevant international standard[4] and of European regulatory initiatives such as the Directive establishing a framework for the recovery and resolution of credit institutions and investment firms.

4 Key Attributes of Effective Resolution Regimes for Financial Institutions, October 2011.

IV Ongoing monitoring of banks

1 Current developments

Optimisation of supervisory processes: supervision is becoming more risk-oriented, …

Work on optimising supervisory processes continued in 2012. The objective is to render supervision more effective and more efficient. Over the past three years, BaFin and the Bundesbank have worked together in a joint risk committee to identify systemic risks and, in this context, have ensured that microprudential and macroprudential supervision are dovetailed. The insights gained through the committee feed into the regularly updated supervisory strategy and plans, and also enhance the risk-oriented and forward-looking aspects of supervision. Furthermore, efficient use of theme-specific cross-sectional studies makes for swift, flexible and needs-based risk analysis. The focus on risk is also reflected, not least, in the more intensive supervision of SIBs which, as well as having to fulfil greater reporting duties, also account for most of the meetings with senior management.

Ongoing monitoring of institutions Table 8

Number of operations conducted

Item	2010	2011	2012
Reports, monthly and other returns			
Individual reports pursuant to sections 13 to 14 of the Banking Act	85,140	91,396	86,159
Single borrowers listed in the summary reports submitted pursuant to sections 13 to 14 of the Banking Act	2,157,927	2,208,220	2,270,199
Reports pursuant to sections 24 and 24a of the Banking Act	26,398	44,502	32,847
Monthly returns and other data pursuant to section 25 of the Banking Act	30,598	30,023	29,457
Reports pursuant to the Solvency Regulation	8,584	8,388	8,156
Reports pursuant to the Liquidity Regulation	25,752	24,964	24,468
Audit reports and reports on activities	6,137	5,707	5,723
Meetings with senior management	1,957	2,738	2,977
Audits of banking operations	214	225	212
Audits pursuant to the Deposit Guarantee and Investor Compensation Act	32	37	39

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… more preventive in organisational and operational terms, …

A key lesson learned from the financial crisis is that supervisors need to take a more preventive and forward-looking approach. This is obviously of relevance at present to the work of closely monitoring and assisting banks in their plans for implementing Basel III.

However, it also applies to the organisational framework for crisis management and the corresponding work that is currently being undertaken by Crisis Management Groups made up mostly of international experts. A key item on their agenda at present is the development and discussion of recovery and resolution plans for the relevant credit institutions.

In the current interest rate environment, the "Basel interest rate shock", the statutory basis for which under European law can be found in Article 124 of Directive 2006/48/EC, has an important role to play in supervision geared more towards prevention. A parallel shift of ±200 basis points in the yield curve is assumed and the changes in a bank's capital position are then examined. The Bundesbank observes, analyses and evaluates the interest rate risks in the banking book ascertained in this way. An evaluation is undertaken, in general, for all institutions on the basis of a quarterly reporting frequency. In combination with the MaRisk requirements for interest rate risk management and the legally enshrined sanctions for excessive risk-taking, this gives supervisors an effective tool kit enabling them to identify interest rate risks in the banking book at an early stage and to take preventive action if necessary.

… and, not least, more international

One of the consequences of increasing cross-border interconnectedness in the banking system is greater internationalisation in supervisory activities. In terms of ongoing monitoring, this is reflected in particular in the significantly intensified efforts of the supervisory colleges. Work carried out by the BCBS as well as at the European level in this respect is helping to further improve supervisory cooperation beyond bilateral relations.

Increased focus on business models

BaFin and the Bundesbank's preventive supervisory approach means that, in future, banking supervision will focus more on the sustainability of credit institutions' business models along with ensuring adherence to regulatory requirements. Although responsibility for a sustainable business model lies with a bank's management, supervisors will nonetheless examine these business models and their underlying assumptions more frequently and with a more critical eye. This also means that the supervisory authorities will expect the currently more than 2,000 credit institutions to continuously review their business models, to tailor them to the

Credit register of loans of €1.5 million or more — Table 9

	Volume of loans of €1.5 million or more		Number of loans of €1.5 million or more reported		Number of reporting		
Third quarter	€ billion	Percentage change	Number	Percentage change	institutions[1]	financial enterprises	insurers
2006	8,067	2.86	507,839	0.72	2,491	1,360	615
2007	8,622	6.88	504,095	− 0.74	2,405	981	619
2008	9,989	15.85	518,331	2.82	2,328	982	634
2009	9,375	− 6.15	517,339	− 0.19	2,322	959	622
2010	9,267	− 1.15	527,375	1.94	2,446	965	606
2011	9,446	1.93	537,423	1.91	2,411	940	596
2012	9,130	− 3.35	554,089	3.10	2,391	898	590

1 Credit institutions and financial services institutions.
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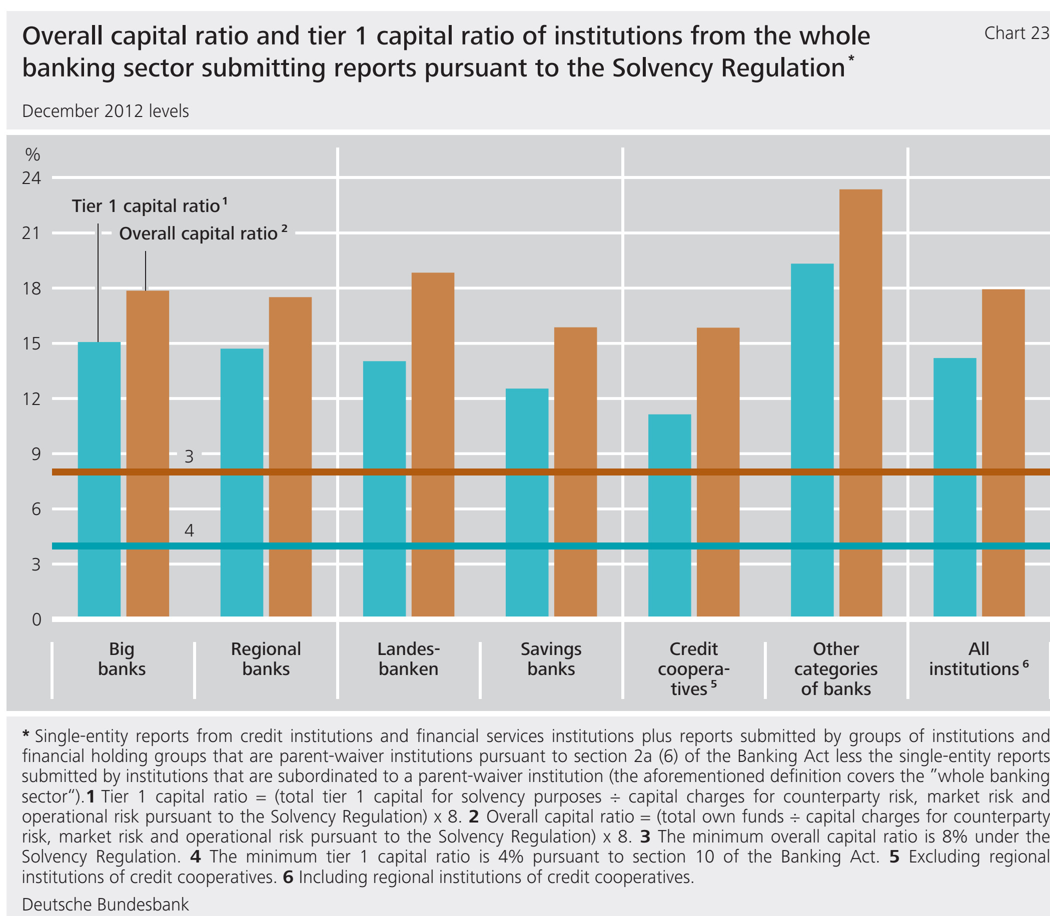
Overall capital ratio and tier 1 capital ratio of institutions from the whole banking sector submitting reports pursuant to the Solvency Regulation*

Chart 23

December 2012 levels



* Single-entity reports from credit institutions and financial services institutions plus reports submitted by groups of institutions and financial holding groups that are parent-waiver institutions pursuant to section 2a (6) of the Banking Act less the single-entity reports submitted by institutions that are subordinated to a parent-waiver institution (the aforementioned definition covers the "whole banking sector"). **1** Tier 1 capital ratio = (total tier 1 capital for solvency purposes ÷ capital charges for counterparty risk, market risk and operational risk pursuant to the Solvency Regulation) x 8. **2** Overall capital ratio = (total own funds ÷ capital charges for counterparty risk, market risk and operational risk pursuant to the Solvency Regulation) x 8. **3** The minimum overall capital ratio is 8% under the Solvency Regulation. **4** The minimum tier 1 capital ratio is 4% pursuant to section 10 of the Banking Act. **5** Excluding regional institutions of credit cooperatives. **6** Including regional institutions of credit cooperatives.

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market and competitive environment, and to pursue a risk strategy adapted to their business model.

2 Audits

MaRisk

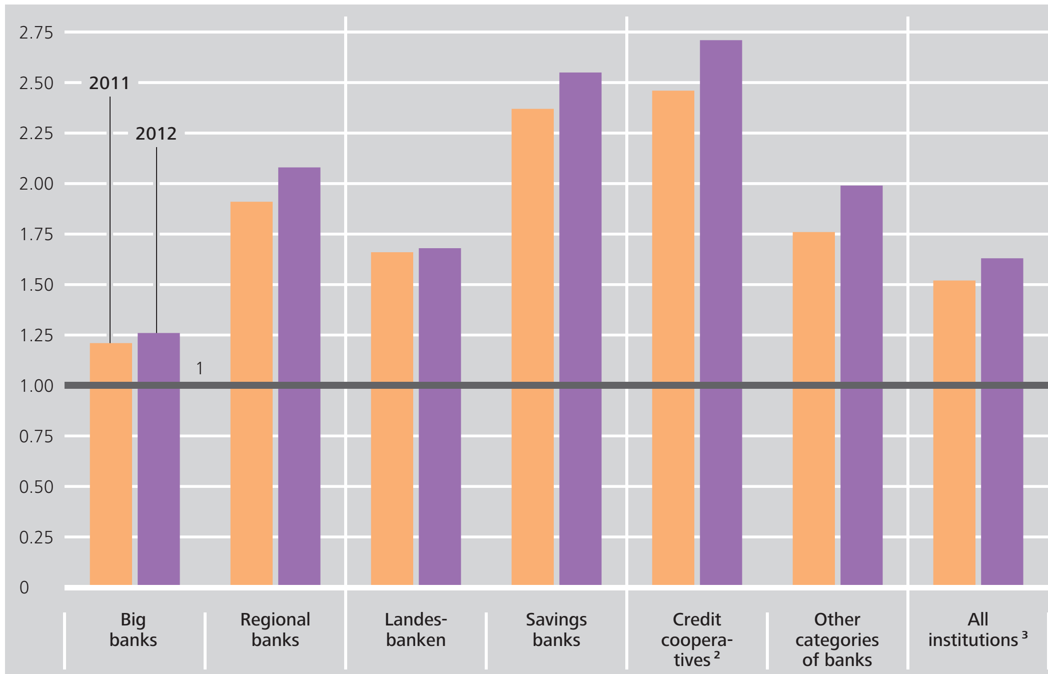
In 2012, the Bundesbank performed 156 on-site inspections as entrusted to do so pursuant to section 44 (1) sentence 2 of the Banking Act. These audits examined the adequacy of institutions' business organisation pursuant to section 25a (1) of the Banking Act. Supervisors focused, in particular, on the assessment of banks' approaches to ensuring their internal capital adequacy and on structural and operational arrangements in credit and trading business. In line with the risk-oriented supervisory approach, a particular focus of the audits was on SIBs and larger institutions: the number of audits at institutions with a balance sheet total of more than €5 billon rose by around 10% compared with the previous year, which meant that these banks accounted for one-third of the inspections performed; of these, a total of 28 audits were conducted at SIBs.

Credit risk; Internal Ratings-Based Approach (IRBA)

In 2012, the use of IRBA procedures was examined by the Bundesbank in a total of 47 audits of banking operations. As most of the IRBA institutions reached the end of their implementation phase at the end of 2012, or will do so at the end of 2013, the focus of the audits was on follow-up examinations, extensions or significant changes to rating systems already approved, and procedures and modules for residual portfolios aimed at achieving the required degree of coverage.

Market price risk; internal risk models

Five follow-up examinations of internal market risk models previously approved by supervisors were conducted in 2012. There was also an emphasis on meetings with senior management to assess the conformity of German model banks to the EBA Guidelines on Stressed Value-at-Risk and the EBA Guidelines on the In-



* Credit institutions and financial services institutions on a non-consolidated basis (Liquidity Regulation reporting format). Liquidity ratio = total payment assets ÷ total payment liabilities. **1** Under the Liquidity Regulation, the required minimum liquidity ratio is 1.0. **2** Excluding regional institutions of credit cooperatives. **3** Including regional institutions of credit cooperatives.

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cremental Default and Migration Risk Charge, both published in 2012.

Operational risk; Advanced Measurement Approaches (AMA)

In 2012, a total of four follow-up examinations were conducted focusing on the use of AMA for operational risk.

Audits on the basis of the Deposit Guarantee and Investor Compensation Act

The Bundesbank also conducted 39 audits of financial services institutions as a result of orders issued by the Compensatory Fund of Securities Trading Companies *(Entschädigungseinrichtung der Wertpapierhandelsunternehmen)* on the basis of the Deposit Guarantee and Investor Compensation Act *(Einlagensicherungs- und Anlegerentschädigungsgesetz).* Pursuant to section 9 (1) of this Act, the Compensatory Fund is tasked with having audits carried out at the enterprises in its sphere of responsibility on both a regular and an *ad hoc* basis for the purpose of assessing the risk of compensation events occurring. As the Compensatory Fund of Securities Trading Companies does not have staff of its own to perform such audits, section 9 (4) of the Deposit Guarantee and Investor Compensation Act stipulates that the Bundesbank shall conduct these audits.

3 Reports

Significant rise in capital adequacy levels

On 31 December 2012, the average overall capital ratio, which gives the ratio of all risk positions that have to be backed by capital to own funds, was 17.94% for all institutions required to submit reports. The average tier 1 capital ratio, which gives the ratio of all risk positions that have to be backed by capital to tier 1 capital, was 14.20%. This includes all institutions reporting on a non-consolidated basis – provided they are not exempt from supervision on a solo basis pursuant to section 2a of the Banking Act – as well as groups of institutions and financial holding groups whose superordinated enterprise is subject to section

2a of the Banking Act (see the definition of the "whole banking sector" in Chart 23).

Slight rise in liquidity ratio

Under the Liquidity Regulation *(Liquiditätsverordnung),* institutions must demonstrate that they have adequate liquidity for payment purposes at all times by maintaining a liquidity ratio of at least 1. On 31 December 2012, the average liquidity ratio was 1.63.

Reporting of loans of €1.5 million or more

Two contrasting results were recorded in the reporting of loans of €1.5 million or more in 2012. Whilst the number of loans of €1.5 million or more to be reported on a quarterly basis pursuant to section 14 of the Banking Act had risen further as at 30 September 2012 compared with the same quarter in the previous year, the volume of reported loans of €1.5 million or more had fallen again.

With the transposition of the CRR and CRD IV into German law, significant elements of the reporting of loans of €1.5 million or more will be modified in future. This will involve, first, a strict separation in the technical reporting of loans of €1.5 million or more and that of large exposures and, second, a gradual modernisation of the reporting system. In the first stage of this modernisation project, the reporting threshold for loans of €1.5 million or more will be reduced progressively to €1 million, and an independent definition of the single borrower unit will be introduced. In a second step, the definition of credit applicable to the reporting of loans of €1 million or more will be extended, and new formats for reporting loans of €1 million or more with an additionally detailed breakdown of amounts will be introduced, thus providing an improved data basis for microprudential and macroprudential analyses. Finally, there are plans to make the reporting system for loans of €1 million or more fully electronic in order to speed up the process.

The launch date for these projects depends essentially on the entry into force of the CRD IV Implementation Act, which in turn is contingent on the CRD IV/CRR timetable.

Cash management

In its core business area of cash management, the Bundesbank aims to maintain an appropriate level of involvement in the cash cycle and intends to process a volume of around 15 billion banknotes each year via its branch network. As in previous years, 2012 saw a further increase in banknote recycling by credit institutions. This is why the Bundesbank will continue to play an active role in the development of private banknote processing and conduct appropriate tests for monitoring compliance with the requirements. Moreover, the Eurosystem continued its work on a new series of euro banknotes, which will be introduced from 2 May 2013, starting with the €5 note. In order to facilitate the adjustments that this requires, the Bundesbank and the other Eurosystem central banks are making an offer to the manufacturers of banknote processing machines to test their systems in use. 2012 also saw the successful launch of the construction project for the Bundesbank's new superbranch in the Dortmund area, which was given the go-ahead by the Executive Board in 2011. There was only a slight rise in the incidence of counterfeit euro banknotes and coins recorded by the Bundesbank in 2012.

Euro currency in circulation in the Eurosystem

Table 10

Trend; € million

End of	Currency in circulation	Banknotes in circulation	Coins in circulation[1]
2010	861,973	839,702	22,271
2011	911,702	888,629	23,073
2012	936,251	912,593	23,658

Breakdown at year-end 2012

Banknotes in circulation			Coins in circulation		
Banknotes of €	€ million	Percentage of total	Coins of €	€ million	Percentage of total
500	293,733	32.2	2	9,866	41.7
200	36,847	4.0	1	6,465	27.3
100	170,614	18.7	0.5	2,670	11.3
50	321,859	35.3	0.2	1,915	8.1
20	59,768	6.5	0.1	1,241	5.3
10	21,707	2.4	0.05	828	3.5
5	8,065	0.9	0.02	411	1.7
			0.01	262	1.1
Total	912,593	100.0	Total	23,658	100.0

1 Circulation of euro coins excluding commemorative coins.
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Euro currency in circulation in the Eurosystem

The volume of banknotes in circulation issued by the Eurosystem went up by 2.7% to €912.6 billion in 2012. The volume of coins in circulation rose by 2.5% to €23.7 billion.

In the financial year 2012, the Bundesbank paid out 15.6 billion euro banknotes with a value of €495.2 billion. During the same period, the Bundesbank received lodgements from its customers of 14.7 billion euro banknotes with a value of €458.1 billion.

Number of counterfeit banknotes and coins detained in German payments and recorded by the Bundesbank

Table 11

Year	Banknotes		Coins	
	Number (thousand)	€ thousand	Number (thousand)	€ thousand
2010	60	3,381	67	121
2011	39	2,085	53	90
2012	42	2,174	52	91

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Euro counterfeits

The number of counterfeit euro banknotes detained in German payments and recorded by the Bundesbank was somewhat higher than in the previous year (see Table 11). By contrast, a slight decline in the number of counterfeit euro coins was recorded.

For the first time since the introduction of the euro currency, the €20 note, which accounted for 46% of the total volume of counterfeits, replaced the €50 note (34%) as the most frequently counterfeited banknote denomination in Germany in 2012.

Counterfeit prevention

In addition to its existing training courses on counterfeit prevention for retailers and the banking industry, the Bundesbank's range of courses has – in consultation with the ministries of education of the German federal states *(Länder)* – been deliberately extended to include vocational school classes specialising in the relevant disciplines. A total of around 2,250 training courses were organised across Germany, attracting over 44,000 participants, which is a significant increase on earlier years.

Damaged and mutilated banknotes and coins

In the financial year 2012, the National Analysis Centre for damaged banknotes and coins received around 22,000 applications (2011: 21,000). The following table shows the amount

Deutsche Mark and euro banknotes and coins submitted to the Bundesbank's National Analysis Centre for reimbursement — Table 12

Year	Banknotes		Coins	
	Number (thousand)	€ million	Number (thousand)	€ million
2010	547	23.2	124	0.04
2011	857	32.3	115	0.03
2012	839	32.1	94	0.05

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of Deutsche Mark and euro coins and notes that were submitted for reimbursement.

Deutsche Mark currency in circulation

The volume of Deutsche Mark currency in circulation was reduced to DM13.2 billion by the end of 2012 (see Table 13). Banknotes accounted for around DM6.3 billion of this amount and coins for roughly DM6.9 billion.

New ES2 banknote series

The second series of euro banknotes (ES2) will be launched from 2 May 2013, with the €5 note being introduced on that date. The other denominations are to be introduced gradually – in ascending order – over a number of years.

Deutsche Mark currency in circulation — Table 13

DM million

End of	Currency in circulation	Banknotes in circulation	Coins in circulation
2010	13,435	6,509	6,926
2011	13,290	6,394	6,896
2012	13,159	6,290	6,869

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The new series will retain the imagery, the main colours and the denomination structure of the first series of euro banknotes. The new notes have, however, been modified slightly to accommodate the enhanced security features.

Strategy 2016 in the area of cash management

The Bundesbank remains committed to its strategy in the area of cash payments. Its core objectives are to ensure an efficient supply of cash (including contingency plans) as well as a high quality of the banknotes in circulation and to prevent and combat counterfeiting. To this end, the Bundesbank aims to maintain an appropriate level of involvement in the cash cycle and intends to process an annual volume of around 15 billion banknotes via its branches; this is roughly equivalent to its processing volumes in recent years. The Bundesbank will also focus on the overall efficiency and security of the cash cycle.

New legal framework conditions for banknote recycling

The Regulation on the auditing of cash *(Bargeldprüfungsverordnung)* came into force on 1 January 2013 on the basis of the amendments to the Bundesbank Act *(Gesetz über die Deutsche Bundesbank)* adopted in December 2011. With this, the European regulations on the checking and recirculation of euro banknotes were fully transposed into German law.

Private banknote recycling

In 2012, there was a further increase in the volume of private banknote recycling. The German banking industry employed around 11,000 customer-operated and some 4,400 staff-operated systems for the recycling of euro banknotes.

New Bundesbank superbranch in the Dortmund area – progress update

The Bundesbank's plans for the creation of a modern superbranch with around 200 employees in the Dortmund area are making progress. A high degree of automation with an optimum level of process and system stability should provide a good infrastructural basis for the rapid and secure settlement of cash transactions. The Bundesbank's range of cash payment services at the new superbranch will not differ from those offered by its existing branches.

Mandatory use of CashEDI from 2013 and DECS

Following a transition period of several years, the use of CashEDI (Cash Electronic Data Interchange) became mandatory for cash counterparties with effect from 1 January 2013. Counterparties are now obliged to notify the Bundesbank's branches electronically of any cash orders and lodgements. Moreover, since 1 October 2012, the Data Exchange for Cash Services (DECS), a system developed by the Eurosystem, has also been available for the electronic exchange of data for cross-border cash transactions between the national central banks. CashEDI serves as the access portal for credit institutions in Germany.

Joint test centre of the Spanish central bank and the Bundesbank

The Bundesbank and the Banco de España have come to an agreement whereby, from 2013 onwards, the two central banks will make use of the know-how gained from their test centres for cash processing systems and offer consultancy services to other central banks.

National and international Bundesbank events in the area of cash management

The cash conference, hosted for the first time by the Bundesbank, on "The usage, costs and benefits of cash: Theory and evidence from macro and micro data" brought together an international group of central bankers and academics. Furthermore, the Bundesbank invited representatives of the banking industry, the retail trade and other cash-related sectors to participate in its first cash symposium. These events will take place approximately every two years in future.

Follow-up study on payment behaviour in Germany

In October 2012, the Bundesbank published the follow-up to its study on "Payment Behaviour in Germany". This study revealed that, as in the 2009 study, cash is still the most commonly used payment instrument in Germany.

Cashless payments and securities settlement

With respect to cashless payments and securities settlement, the Bundesbank strives to fulfil its statutory mandate for the execution of domestic and cross-border payments and its strategic objectives by making settlement as secure and efficient as possible. On the one hand, the Bundesbank works towards achieving these goals by acting as a catalyst in national and international bodies. On the other, it contributes by providing its own efficient and competitively neutral interbank payment systems. Lastly, the Bundesbank is tasked with the oversight of payment and securities settlement systems as well as of payment instruments based on international standards.

In 2012 one of the Bundesbank's main activities in the area of payments again consisted in facilitating the implementation of the Single Euro Payments Area (SEPA). However, in view of the still limited use of SEPA instruments in Germany, all the parties involved in payment transactions will need to make considerable efforts if the statutory migration is to be completed by 1 February 2014. The TARGET2-Securities project, which will contribute greatly to the further integration of the European financial market infrastructure as of June 2015, made substantial progress in the course of the year. In partnership with three other Eurosystem central banks, the Bundesbank has been involved in the development of TARGET2-Securities and will also be actively involved in its future operation. In addition to being responsible for the ongoing oversight of payment and settlement systems, the Bundesbank has, above all, collaborated on drawing up a set of new international oversight standards for market infrastructures. The Bundesbank's payment-related research and analysis activities were mainly focused on matters relating to the TARGET2 large-value payment system. Moreover, the Bundesbank conducted a study on payment behaviour in Germany.

Single European payments market becoming a reality

The Single Euro Payments Area (SEPA) is becoming a reality. EU Regulation No 260/2012 establishing technical and business requirements for credit transfers and direct debits in euro and amending Regulation (EC) No 924/2009 came into force on 31 March 2012. Uniform standards and rules for euro-denominated national and cross-border credit transfers and direct debits shall replace the currently applied national schemes and procedures from 1 February 2014. The accompanying German SEPA legislation, which is scheduled to enter into force in the first quarter of 2013, gives consumers the exceptional right to continue to use their existing national account identifiers at the customer-bank interface up to 1 February 2016. Moreover, it provides for the tried and tested electronic direct debit scheme (ELV) that is widely used in the German retail sector to continue to be used up to the same end-date. At present, users in Germany are taking their time to migrate to the SEPA Credit Transfer and Direct Debit Schemes. The percentage share of SEPA credit transfers in the total volume of credit transfer transactions in Germany remains somewhere below 10% while the SEPA direct debit is virtually unused. In light of this fact, there needs to be a clear improvement in terms of disseminating information about SEPA to the general public and enterprises. The German SEPA Council supports the SEPA process in Germany, *inter alia* through harmonised communication measures. Under the chairmanship of the Bundesbank and the Federal Ministry of Finance, this body brings together the most important stakeholders engaged in the SEPA migration process with a view to ensuring that the transition is effected as smoothly and efficiently as possible by the end-date of 1 February 2014.

Increase in demand for cashless payment instruments

Cashless payment instruments are being used more and more frequently to pay for goods and services at the point-of-sale (POS). This was one of the findings of a new study on payment behaviour in Germany published by the Bundesbank. Besides the growth in demand for card payments there has been a particularly marked increase in the use of e-payment schemes specifically designed for online shopping. Notwithstanding this fact, the use of such schemes remains at a very low level overall. Given the growing importance of e-commerce in Germany, however, considerable potential for growth may still be anticipated in this area. New technologies such as contactless payment at the POS have been of negligible significance in Germany to date. As shown by the study, additional work will be needed in this context to persuade potential users to use these payment methods, *inter alia* with respect to security concerns.

CPSS working group on innovations

A report on innovations in the area of retail payments produced by a working group of the Committee on Payment and Settlement Systems (CPSS) at the Bank for International Settlements (BIS) and chaired by the Bundesbank yielded similar results. Based on a survey of relevant innovations in the member countries, it highlighted international trends, analysing the positive and negative determinants of the way in which innovations arise and identifying potential areas of interest to central banks.

SEPA services offered specifically by the Bundesbank

With the Retail Payment System (RPS) SEPA-Clearer, the Bundesbank enables credit institutions and public administrations to actively use the SEPA schemes. Not least on account of the intensified migration activities of public administrations and the setting of a binding end-date for migrating national credit transfer and direct debit schemes by 1 February 2014, the volume of payment transactions settled via the SEPA-Clearer was higher in 2012 than in 2011. By the end of the year, around 224,000 SEPA transactions were being processed per working day. This represents a year-on-year volume increase of almost 65%. However, the persistently low percentage share of just under 2% as a proportion of all retail payments settled via the Bundesbank vividly demonstrates the continued need for action in the economic sphere.

During the year under review, almost all central securities depositories (CSDs) operating within

Cashless payment systems

On 19 November 2012, the TARGET2 real-time gross settlement system, which is jointly operated by the Bundesbank, the Banque de France and the Banca d'Italia on behalf of the Eurosystem, was able to look back on its first five successful years of operation. TARGET2 is an essential pillar of the financial market infrastructure for the euro, which enjoys a high level of customer acceptance and a highly stable operating environment. Throughout the reporting year, TARGET2 operated very steadily at 100% availability. Owing to the financial crisis, TARGET2 was unable to achieve the originally targeted annual average growth rate of 6% over the longer-term period from 2007 to 2012. However, the modest recovery that was already evident in 2011 continued in the reporting year. Thus, in 2012, an average of around 354,000 payments with a value of €2,477 billion were processed each working day by TARGET2, which is slightly higher than in the previous year both in terms of the volume of transactions and the value. Using TARGET2 it is possible to settle urgent payments between a total of approximately 1,100 direct participants. Around 55,000 financial institutions, including branches and offices, can be reached via the TARGET2 system worldwide.

In total, 238 institutions in Germany and the European Economic Area (EEA) are directly connected to the German TARGET2 component, while 2,521 institutions, including branches, are linked to it indirectly. In this case, too, there was a slight increase in volume compared with the previous year. In terms of volume, Germany's share of payments settled via TARGET2 remained at around 50%, while its share in terms of value fell slightly in 2012 from 34% to 31%. This is due primarily to methodological adjustments in the TARGET2 statistics. The share of smaller-value customer payments as a percentage of the total volume of the German component remained virtually unchanged at around 61%.

In addition, the Bundesbank is actively involved – alongside other service providers – in German interbank clearing by offering its Retail Payment System (RPS) for the clearing and settlement of retail payments in the domestic DTA format and the SEPA-Clearer for retail payments in the SEPA format.

Cashless payments of the Deutsche Bundesbank

Item	2011		2012			
	Volume (million)	Value (€ billion)	Volume (million)	Percentage change	Value (€ billion)	Percentage change
Individual payments	44.8	212,995	45.3	1.1	198,145	– 7.0
TARGET2-BBk	44.4	209,911	45.0	1.2	195,589	– 6.8
Domestic	33.2	149,857	33.1	– 0.5	139,549	– 6.9
Cross-border	11.2	60,054	11.9	6.1	56,039	– 6.7
Other[1]	0.4	3,084	0.4	– 8.4	2,557	– 17.1
Retail payments	2,694.0	2,414	2,821.1	4.7	2,513	4.1
RPS	2,690.1	2,412	2,817.1	4.7	2,511	4.1
Domestic	2,658.8	2,319	2,775.5	4.4	2,360	1.8
Cross-border[2]	0.4	1				
SEPA credit transfers[3]	30.7	90	40.4	31.5	145	61.7
SEPA direct debits[3]	0.1	3	1.1	.	6	.
Other[4]	3.9	2	4.0	3.1	2	5.4
Total	2,738.8	215,409	2,866.4	4.7	200,658	– 6.8

1 In particular CAM: Customer Access Mechanism (access to TARGET2-BBk, correspondent banking). **2** The procedure used for settlement was discontinued on 5 December 2011. **3** Domestic and cross-border payments via the SEPA-Clearer. **4** Exclusively MASSE: procedure for cross-border retail payments effected by public authorities.

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The Eurosystem's TARGET2-Securities project

the euro area plus five located outside this zone entered into a contractual obligation to participate in TARGET2-Securities (T2S). This provided a sound political, legal and economic foundation for the further integration of European securities settlement. T2S project activities in 2012 included an update of the user detailed functional specifications (version 1.2.1) and the accomplishment of a number of other important milestones (eg the publication of the T2S user handbook, version 1.0). These documents are the reference template for central securities depositories, central banks and other participants directly connected to T2S to adjust their IT systems and internal procedures accordingly to guarantee smooth interaction with T2S. Similarly, good progress is being achieved in the area of applications development. The core functions of T2S have now been implemented, with the result that current attention is focused on the test activities. As regards T2S project work, the Bundesbank is coordinating key areas of activity and, as it did before with TARGET2, will take on an operative role when the planned go-live occurs in June 2015.

Migration of bank account management and integration of collateral management in TARGET2

Bank account management activities, including all related functions (eg minimum reserve holdings and booking of open market operations) are scheduled to be migrated from the Bundesbank's existing internal account management system (KTO2) to the TARGET2 technical platform on 24 June 2013. On the one hand, this fulfils the requirements set out by the Eurosystem, stipulating that open market operations are to be conducted using TARGET2. On the other, it serves to further enhance the efficiency of liquidity management activities. The migration process will also entail the integration of the Bundesbank's internal collateral management system, and in particular the credit line generated by the collateral pools, in TARGET2. Accounts specifically devoted to the settlement of cash transactions will remain in the KTO2 system.

ISO 20022 strategy in TARGET2 takes concrete shape

To ensure its future viability and encourage further harmonisation in the field of payments, TARGET2 envisages the phased introduction of the new ISO 20022 message standard, which also applies to SEPA payments. Initially, this standard is to be used to facilitate the integration of T2S. In a second step, all payment messages issued in TARGET2 are to switch to the new standard. Subsequent to a comprehensive user consultation procedure involving banks across Europe, the second step is to be effected in the form of a full migration on a "big bang" target date in 2017.

TARGET2 analysis

Payments analysis is becoming an increasingly important oversight tool. In the year under review, the key focus of such research was TARGET2. In this context, the work plans specified by the Eurosystem made use of the TARGET2 simulator to actively assist the Eurosystem group of supervisors responsible in their efforts. Once it was developed and up and running, this simulator was used to issue initial analyses in the reporting year.

No free-riding by major German participants in TARGET2

In addition to the analysis work mentioned above, a separate research project examined the extent of free-riding activity within TARGET2. The aim here was to establish whether individual institutions depended on the liquidity of other parties to an "undue" extent when executing their TARGET2 payment transactions. Analysis of the payment behaviour of nine German participants suggests that free-riding is irrelevant, not least because of the market pressure which exists, thus rendering any explicit rules to enforce the earlier submission of payments unnecessary.

Involvement in joint CPSS and IOSCO projects …

The Bundesbank was involved in preparing the "Principles for financial market infrastructures" (PFMI) which were published by the CPSS and IOSCO (International Organization of Securities Commissions) in mid-April. These principles serve as the keystone for the oversight activities of the central banks and securities regulators. They replace and tighten the existing recommendations for systemically important payment and securities settlement systems, central securities depositories and central counterparties.

TARGET2 balances

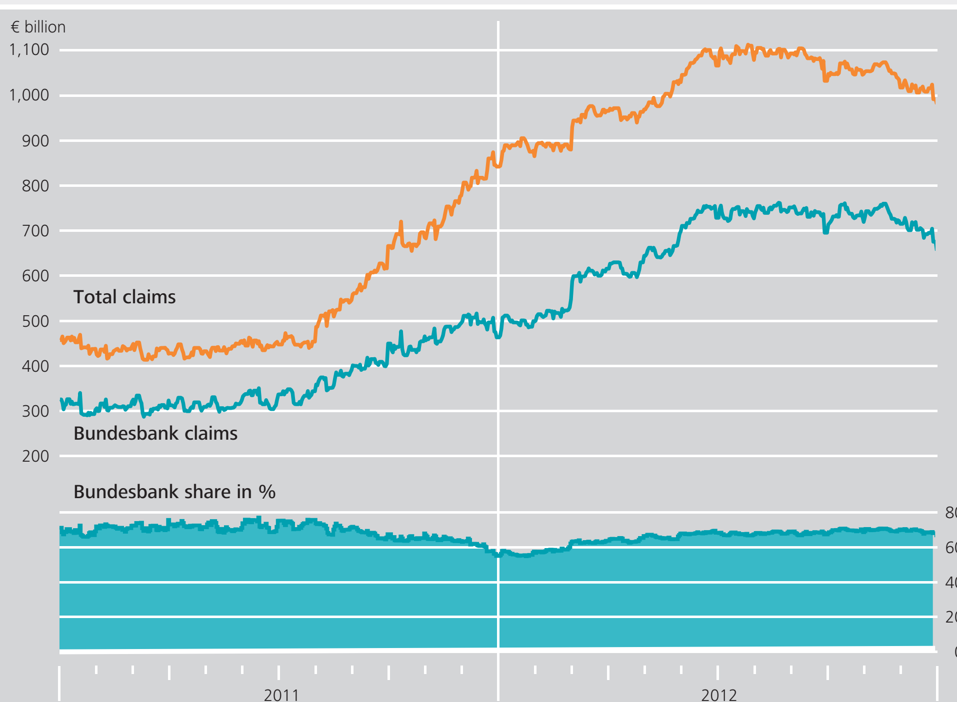
TARGET2 balances soared in 2012, especially in the first half of the year. Credit institutions connected to TARGET2 via the Bundesbank recorded inflows from cross-border payments that were €192½ billion higher, on balance, than their cross-border outflows. The Bundesbank's TARGET2 claims on the ECB thus increased from €463 billion to €655½ billion. The ECB, for its part, had claims on other national central banks of the Eurosystem amounting to €981 billion. This figure exceeded the previous year's amount by €139 billion. The rise in both the Bundesbank's and the ECB's TARGET2 claims took place in the first half of 2012 at a rate similar to that observed since mid-2011, accelerating significantly at times in connection with the booking of the three-year long-term refinancing operations (LTROs). The build-up of TARGET2 balances was driven by broad-based divestments by international and national investors from individual countries, as well as by the difficulties that their respective banking systems were facing in obtaining wholesale market funding.

The momentum shown by the TARGET2 balances began to ease somewhat in mid-June and they have been declining since November. Capital flows from countries with positive balances into countries with negative balances are a prerequisite for reducing the balances further. Reestablishing confidence in the fiscal policy and banking systems of countries particularly affected by the crisis, and improving the competitiveness of their economies, play a key role in this respect. TARGET2 balances themselves do not carry any risks in a monetary union whose circle of participants remains unchanged, but they can be interpreted as an indicator of tensions in the national banking systems and of external imbalances within the euro area.[1]

1 For a risk assessment see p 128.

TARGET2 claims

Daily data



Deutsche Bundesbank

Moreover, they address trade repositories for the first time.

… as well as in CPSS/BCBS collaborations

Working jointly with the CPSS and BCBS (Basel Committee on Banking Supervision), the Bundesbank collaborated on the development of monitoring indicators for measuring and managing intraday liquidity risk to act as a supplement to the merely qualitative BCBS rules currently applied to internationally active banks. Moreover, the Bundesbank was involved in reviewing and updating the BCBS's "Supervisory guidance for managing settlement risk in foreign exchange transactions".

Participation in legislative work relating to the CSD Regulation and EMIR

In 2012, efforts commenced at the European level on drawing up a regulation dealing with central securities depositories. The Bundesbank participated in this work, assisted by the Federal Ministry of Finance and the Federal Financial Supervisory Authority. Exercising its oversight function, the Bundesbank was also represented on a joint ESCB-ESMA (European Securities and Markets Authority) task force charged with developing a set of regulatory technical standards to define the numerous areas of regulation covered by the EU regulation on over-the-counter (OTC) derivatives, central counterparties and trade repositories (European Market Infrastructure Regulation, EMIR) which came into effect on 16 August 2012.

Oversight of large-value payment systems and SWIFT

Under the cooperative oversight arrangement for the Continuous Linked Settlement (CLS) system for international foreign exchange transactions, the Europe-wide large-value payment systems, TARGET2 and EURO1, and the financial communications service provider, SWIFT, the Bundesbank contributed to the general risk assessment of these systems and the evaluation of ongoing business activities.

Payment instruments oversight

The oversight of card systems throughout the Eurosystem continued apace. In July 2012, the ECB published the results of a statistical survey in its first report on card fraud, which was compiled by the ECB and the 17 national central banks of the euro area. The report pointed to an overall decline in the number of fraud incidents, not least as a result of the changeover from magnetic strips to chip technology.

European forum on retail payment security

The Bundesbank is also a member of the European forum on retail payment security (SecuRe Pay Forum), whose "Recommendations for the security of internet payments" were published in January 2013. At the same time, this body's recommendations regarding the accessing of accounts by third-party providers were made the subject of a public consultation which will last until April 2013.

Statistics

In the course of the ongoing financial and sovereign debt crisis, the need for information, in particular in terms of systemic relevance, has gained considerably in importance. This applies both to the scope and depth of detail of the data as well as to how often such data are to be reported and processed. In 2012, the main focus was on the compilation of detailed data on the exposure of the German financial sector to European peripheral countries. This was accompanied by the challenge of presenting statistics on any changes in interbank relationships and banking groups brought about by the financial crisis in such a way that the impact of closures, resolutions or mergers of individual banks could also be distinguished in the data.

To fulfil these tasks, the banking statistics drew on the tried and tested surveys of the monthly balance sheet statistics, the external position report and the securities statistics. For example, the statistics on securities investments provide a deep insight into German inverstors' exposure to European problem countries. The data from the external position report of domestic banks, their foreign branches and foreign subsidiaries provide a comprehensive picture of lending activities, categorised by borrower country, sector and currency.

Last year, the Statistics Department was again intensely involved in refining the reporting system. The Bundesbank contributed in many different ways to the global process of mitigating and remedying the shortage of data and, amongst other things, contributed to expanding the Bank for International Settlement's (BIS) information base on institutions' funding risk. The BIS, which plays a prominent role in the preparation and analysis of international banking statistics, plans to draw up a coherent overview capturing the interconnectedness of funding relationships between individual banking systems and within individual groups of institutions worldwide. Furthermore, the Bundesbank has expanded its own set of instruments for observing bank funding. Since last year, the Bundesbank has also provided the EU with a set of national data, in particular external statistics, as part of the extended multilateral monitoring process to assess macroeconomic imbalances. Data on the development of an economy's international investment position play a central role in respect of gauging debt sustainability and assessing the implications of debt positions for a country's economic stability. The preparation of quarterly group data from the real economy was also significantly extended in the past year. This meant that, in December 2012, it was possible for the first time to present results on the level and development of the tangible fixed assets ratio and the equity ratio of around 70 non-financial groups listed on the DAX and the MDAX.

Moreover, endeavours to improve the database were boosted by the new Act to Strengthen German Financial Supervision (Gesetz zur Stärkung der deutschen Finanzaufsicht), which assigns the Bundesbank a macroprudential mandate in Germany and simultaneously sets out preconditions for acquiring and using the required information. This legislation also provides for a close exchange of data with the Federal Financial Supervisory Authority (BaFin).

Banking statistics: current data needs under systemic aspects

In the area of banking statistics, the tried and tested surveys of the balance sheet statistics, the external position report and the securities statistics have proven, in many respects, to be appropriate and reliable sources to meet the growing requirements regarding the scope, depth of detail and timeliness of data requests. This mainly concerned additional demands regarding the monitoring of the financial system. The need for information was primarily related to German institutions' exposure to the European peripheral countries. Furthermore, the shifting pattern of interbank relationships within and outside the euro area has come under the spotlight. In addition, the institutional composition of the banking groups has been altered owing to substantial fluctuations, resulting in new constellations that are important for the functioning of the financial system. The Statistics Department was called upon to survey and process the relevant data and to make these accessible for analysis in a timely manner.

Use of tried and tested instruments

For this, the department was able to make use of tried and tested instruments. Thus, the statistics on securities investments, for example, provide comprehensive data on the exposure of German investors to European problem countries. The data permit an in-depth insight into bank-owned securities holdings and customer portfolios of domestic banks, even providing information on individual securities. As of 2013, these will be available on both a quarterly and a monthly basis. This information will be supplemented by detailed data from the external position reports of domestic banks, their foreign branches and foreign subsidiaries, from which a good overview of lending activities can be obtained, categorised by borrower country, sector and currency.

Recording changing interbank relationships …

The changing patterns of interbank relationships are primarily reflected in the aggregates of the monthly balance sheet statistics, since the institutions must separately report their positions vis-à-vis domestic and foreign banks as well as vis-à-vis the Bundesbank. At the same time, the balance sheet context of the monthly balance sheet statistics indicates the sources of the invested funds and where the funds received are transferred to. Supplemented by data from the external position report, this presents a highly detailed picture of national and cross-border interbank relationships.

… and banking groups

In 2012, the aforementioned changes to the institutional structure of the banking groups were primarily brought about by closures, resolutions or mergers of individual banks. In such cases, the compilation of statistical data poses a challenge insofar as it must be possible to discern what impact such activities have on the statistics. The balance sheet statistics, which are directly relevant to the banks' accounting activities, proved once again to be a suitable reference for identifying and bridging unavoidable gaps. Moreover, the close, long-standing, harmonious cooperation with the institutions in question greatly facilitated the documentation of the above procedures.

Refining reporting in international cooperation …

… for banking statistics …

In 2012, the Statistics Department also concentrated on the targeted refinement of the reporting system. The persistent financial and sovereign debt crisis has highlighted a series of sensitive data gaps and has accelerated the implementation of concrete measures in many parts of the world to mitigate or resolve such shortages. The Bundesbank contributes to this process in many ways and, of late, has become more involved in activities aimed at extending the information base on institutions' funding risk. Thus, comprehensive data on the lending and deposit business of banks domiciled in Germany, which were derived from the balance sheet statistics and the external position report and categorised according to the nationality of the institutions involved, were forwarded to the BIS, amongst others. The BIS, which plays a leading role in processing and analysing international banking statistics, plans to combine the data from Germany with data from other major industrial countries and financial centres within a comparable framework. This would

illustrate in one coherent structure the intertwined nature of funding relationships between banking systems as well as within individual groups of institutions worldwide.

Furthermore, the Bundesbank has broadened its own set of instruments for observing bank funding. This included in particular the adoption of a revised version of the reporting requirements for issuance statistics on debt securities in the middle of last year, which, in future, will make it possible to account for the increasing complexity of financial instruments in circulation to a much greater extent than before. As of the end of 2013, the extended compilation of statistical data for the external position report will provide additional information on bank funding. This will mainly involve composing a detailed overview of the liabilities of foreign branches and foreign subsidiaries of German institutions. Data on securitised liabilities as well as on liabilities from derivative financial instruments will also be compiled for these institutions in future.

… and external statistics

At European level, the procedure introduced by the EU Commission to monitor and assess macroeconomic imbalances (scoreboard concept) played a significant role in making the national statistics of the individual member states a focal point of economic policy interest once again. Data on both the current account and the net international investment position of an economy are central to observing financial and real sector interconnections amongst EU countries as well as with countries and regions outside the EU. Until now, these statistics have been submitted to the European Institutions as "country components" for the calculation of the respective EU and euro-area aggregates. Now, countries are also requested to provide purely national statistical data in order to facilitate a differentiated and comprehensive analysis of the external position of each individual EU member state.

The increased significance of national statistical data entails greater requirements not only in terms of quality and being up to date but also with regard to their potential for analytical use. In this context, the Bundesbank pays particular attention to expanding the set of statistical information on the development of (net) external assets. In the wake of globalisation and since the introduction of the euro, not only have Germany's overall external claims and liabilities increased sharply – so, too, have its creditor and debtor positions denominated in foreign currencies. Due to these large volumes, even relatively moderate exchange rate fluctuations could have a significant impact on the value of German net external assets as well as on the income from foreign investment and its overall profitability.

The Bundesbank not only seeks to calculate such valuation effects as part of the quarterly report on the international investment position but also to make them available for macroeconomic analysis by developing an effective exchange rate weighted with external positions. This involves establishing a system of effective exchange rates, with a breakdown of Germany's foreign assets and liabilities by currency, sector and instrument. This disaggregated approach provides information on the impact of exchange rate changes on the asset and liability positions in terms of the relevant sectors and instruments, also in the context of sensitivity calculations.

Expansion of quarterly statistics for listed non-financial groups

The quarterly statistics on the profitability, assets and financing of listed groups were also further expanded for the real economy in the 2012 financial year. Thus, for the first time, the Bundesbank's December 2012 *Monthly Report* presented both data on the pre-tax result and aggregated results on the level and development of the tangible fixed asset ratio and the equity ratio of the roughly 70 non-financial groups listed in the DAX and the MDAX, which account for more than 90% of turnover of all listed groups in the real sector. Despite differences in accounting and the sample size, these analyses of consolidated data provide an initial overview of trends for the data extrapolated

from the individual financial statements of major companies for 2012. Owing to the long, legally stipulated, preparation times granted to small and medium-sized enterprises, these data can only be presented and analysed in the Bundesbank's *Monthly Report* 12 months after the end of the financial year. Moreover, the quarterly results of the consolidated financial statements statistics are already incorporated into the financial accounts.

Data exchange with BaFin

Furthermore, efforts to improve the database have been boosted by the new Act to Strengthen German Financial Supervision, which assigns the Bundesbank the task of macroprudential oversight in Germany and simultaneously sets out preconditions for acquiring and using the required information. In line with this, a close exchange of data with BaFin was envisaged from the beginning. For this reason, both institutions established a procedure early on which allows all relevant data to be identified and the modalities of their availability to be clarified in the context of the new legal requirements. While the Bundesbank and BaFin have generally always shared data on banking supervision, the Bundesbank will, in future, be able to access for the first time insurance data and securities transaction data that are key to financial stability. The Statistics Department will act as a hub for the Bundesbank, receiving and processing the BaFin data and subsequently forwarding them for analysis to the units responsible for macroprudential oversight. At the same time, following tried and tested procedures, Bundesbank data which are related to supervisory tasks will be made available to those units at BaFin which require them.

Education

The Bundesbank provides both internal education programmes, which focus on the education and training of its own staff, as well as external education programmes, which are aimed in particular at the German public and staff at other central banks. The Bundesbank's education programmes are generally developed and presented by its own staff as this ensures that they are carried out with a high level of expertise and credibility.

One of the objectives of the Bundesbank's "Strategy 2016", which was adopted in the reporting year, was defined as the provision of "central bank knowledge". Against the backdrop of the ongoing financial and sovereign debt crisis, it is becoming increasingly important for the Bundesbank to raise the general public's awareness of the value of a sustainable stability policy and to deepen their understanding of the Bundesbank's view.

In order to perform its core tasks expertly, the Bundesbank's education activities have remained focused on maintaining high levels of staff knowledge and ensuring an influx of well qualified new staff. Its training activities face new challenges in this area, too, as the crisis has prompted a number of reforms whose consequences must be taken into account by the Bundesbank's training experts in order to prepare staff to perform their new tasks in banking supervision or also in, for example, financial stability – an area for which the Bundesbank received a legal mandate in the reporting year.

Bundesbank experts pass on their knowledge

The main task of the Education and Training Division is to provide the Bank's staff with central-bank-specific knowledge which, in light of the current crisis, relates particularly to banking supervision and financial stability, but which is also developing rapidly in the areas of operational monetary policy, payments and cash management. The majority of the training programmes are conducted by the Bank's own experts. The main focus of the internal programmes is therefore on the transfer of knowledge to junior Bundesbank staff on all career paths. Staff then develop their professional and personal skills throughout their career by means of training that is tailored to the needs of the business units and that also has to meet the challenges of the growing internal mobility of its workforce. To ensure comprehensive expertise in theory and practice, the Bank also engages external speakers for its training courses and seminars.

537 people in training

The Bundesbank's education requirements remained at a high level last year, with a total of 537 people in education. Almost half the graduates from all programmes embarked on a career in the Upper Intermediate Service. The vast majority studied at the Bundesbank's university in Hachenburg (in the state of Rhineland-Palatinate) while others, especially those employed in IT, studied at the Baden-Württemberg Cooperative State University. The second largest group consisted of junior staff receiving education for roles in the Intermediate Service, eg for cash processing. Staff in the Higher Service account for around one out of ten trainees; it should be borne in mind that the Bundesbank also recruits externally for some roles in this career path. In 2012, stricter rules shortening the duration and streamlining the content of education programmes for the Higher Service career path were introduced. The Bundesbank's career path courses and curricula have therefore been updated in response to the new service regulations for civil servants.

University of the Deutsche Bundesbank

The Bundesbank is the only Eurosystem central bank to have its own university. In a two-pronged degree course, the university provides the next generation of middle managers at the Bundesbank and the Federal Financial Supervisory Authority (BaFin) with theoretical knowledge, while practical work experience is provided at business units of the Bundesbank and BaFin. In 2012, the University of Applied Sciences was renamed the University of the Deutsche Bundesbank (*Hochschule der Deutschen Bundesbank,* or HDB) which, together with the conversion of the diploma course to a bachelor's degree last year, marks a further milestone. The university's new name reflects the change in European education and the fact that specialised colleges of higher education are becoming more similar to universities. It is hoped that the new name will help to strengthen the reputation and attractiveness of vocational training at the Bundesbank in a changed environment, especially given the competition for high-achieving school leavers.

Bachelor's degree in central banking

During the reporting year, 118 civil servant students for the Upper Intermediate Service started the three-year Bachelor of Science course in central banking. At the end of the reporting year, a total of 311 students were enrolled at the HDB, 30 of who were from BaFin. The HDB employed 16 full-time lecturers in the reporting year as well as over 100 part-time lecturers. In addition, over 500 tutors assisted with the practical aspects of the programme. A total of 97 students passed their final examinations in the 2012 reporting year.

Further increase in need for training

The need for training has continued to increase, especially in the Bundesbank's core business areas. Again, it was possible to meet this need mostly using internal resources. In total, more than 18,700 participants attended over 2,200 internal seminars. External training programmes were used around 2,700 times. In terms of headcount, around 80% of staff received targeted training in 2012.

European activities expanded

At the same time, the Bundesbank further expanded its participation in the European System of Central Banks (ESCB) and the European

Supervisor Education Initiative (ESE). The Bundesbank contributed nine seminars to the joint ESCB training activities. Parallel to this, in 2012, its fourth year of existence, the ESE organised 22 seminars on 13 topics. These were attended by around 370 experts from the banking, insurance or securities supervision departments of 41 central banks and supervisory authorities. In addition to the Bundesbank, the central banks of Austria and Luxembourg, BaFin and the Goethe Business School (University of Frankfurt) also belong to the ESE. The Bundesbank chairs the organisation and is responsible for the secretariat. Through its seminars, the ESE makes an important contribution to the mutual understanding of European financial supervision.

Central banking workshops

In 2012, the Bundesbank once again hosted a series of central banking workshops for experts from European central banks and supervisory authorities on "Shaping the stability of financial infrastructures for tomorrow", this time in cooperation with the Frankfurt School of Finance and Management.

TCBC exchange of experience receives positive response

The financial and sovereign debt crisis, which is now several years old, has further increased the need for a more in-depth exchange of ideas and experience at many central banks. Topics relating to the crisis have also been meeting with interest at central banks in emerging and developing countries not directly affected by the results of the turmoil. For them, the Bundesbank is a sought-after dialogue partner thanks to its decades of unwavering commitment to stability. The Bundesbank's expertise in nearly all aspects of modern central banking was also greatly in demand. The Bundesbank responds to the needs of its partner central banks and provides guidance on stability policy issues through its Technical Central Bank Cooperation (TCBC). It is also in regular contact with the Federal Foreign Office in the course of its work.

Demand for bilateral cooperation remains high

As in previous years, demand for training and consultancy services provided by the TCBC also remained high in the reporting period. Over 300 activities within Germany and abroad were organised with almost 90 central banks. Overall, more than 3,000 central bank employees from around the world took part in the events. Interest was focused primarily on the five core business areas of the Bundesbank – cash management, the financial and monetary system, monetary policy, banking supervision and payment systems – as well as on issues of good governance. As expected, in light of the ongoing financial and sovereign debt crisis, demand for support in the areas of financial stability, banking supervision and risk management remained exceptionally high. In geographical terms, as in previous years, the Bundesbank primarily focused its efforts on EU accession and EU candidate countries, European Neighbourhood Policy (ENP) countries, the states of the former Soviet Union and important emerging market economies. In Latin America, Africa and Asia, stronger cooperation at regional level led to considerable synergy effects for the Bundesbank.

Wide range of economic education available to the general public

The Bundesbank's external education activities in Germany are designed to impart basic knowledge about economics in the areas of money, currency and central banking. To reach out to the public as early as possible, these activities are addressed in particular to school pupils and teachers. The Bundesbank supports teachers by providing a comprehensive range of teaching materials and by organising teacher training seminars. Overall, 876 groups and around 31,700 participants, mainly school pupils, attended lectures held at the Bundesbank's Central Office and regional offices during the reporting year. In spring 2012, the new edition of the students' book "Money and monetary policy" was published. The book discusses the most recent developments in the wake of the financial and sovereign debt crisis and provides clear explanations. At the same time, a growing supply of training material is available on the Bundesbank's website.

Money Museum as an interactive learning venue

In the reporting year, the Money Museum played its established role as an interactive learning venue for monetary history and economics. With just over 38,000 visitors, it remained as popular with the public as in previous years. Parallel to updating the content and technology of the current permanent exhibition, plans to renovate and redesign the Money Museum moved ahead. The lectures and accompanying publications on the history of money organised by the coin and banknote collection team were very popular.

"Goethe and Money" week in 2012

The Money Museum took part in this year's "Goethe and Money" *(Goethe und das Geld)* week in Frankfurt with a special exhibition entitled "Goethe.On.Money." *(Goethe.Auf.Geld.)*. Around 3,000 visitors viewed this presentation of coins and banknotes from the Bundesbank's numismatic collection featuring motifs connected to the author or his works. There was also keen interest in the companion volume to this special exhibition.

Increase in requests pursuant to the Freedom of Information Act

Under the Bundesbank's framework for information management, the archives, documentation units and libraries were responsible for collecting, processing and making available knowledge produced both internally and externally. During the reporting year, in addition to frequent official, academic and journalistic use and queries, the historical archive recorded an increase in requests for information pursuant to the Freedom of Information Act *(Informationsfreiheitsgesetz)*. The library at the Bundesbank's Central Office, which, with over 225,000 media items, is Germany's leading library for all publications relating to central banking and money, also further expanded its holdings in the reporting year.

Other activities

I Research Centre

Evaluation of the Research Centre

The Research Centre performs two key functions. It provides decision-makers at the Bundesbank with scientific analyses and its staff participate in academic debate, for example by publishing scholarly papers and by actively taking part in conferences. Last year, a group of external, independent experts evaluated the work of the Research Centre. In their evaluation report, the external experts stated that the Research Centre has made great progress since it was established. At the same time, they suggested a number of improvements. The Bundesbank largely accepted these proposals and has already implemented many of them. Both the evaluation report and the Bundesbank's reaction to it have been published.

Focal points of research

In the past year, too, research was focused on the topics of monetary policy and its macroeconomic environment, financial stability and banking regulation. Questions and developments relating to the ongoing crisis were once again of particular interest. In this context, progress was made with regard to modelling the links between the real economy and the financial sector, and new insights were gained on the underlying causes of the crisis. Other research work is concerned with issues surrounding the resilience of the financial system. These include improved models that can be used during stress tests or a study on the circumstances under which the publication of stress test results itself can have a positive impact on financial stability.

Research networks

The exchange between the Research Centre, on the one hand, and researchers in other central banks, universities and similar institutions, on the other, is important and occurs mainly via four channels. The first channel is the Research Centre's active participation in networks in which Bundesbank staff collaborate with external academics. Some of these networks were organised by the Bundesbank, while others were initiated by an external party. These include three ESCB research networks. In the past few years, the Household Finance and Consumption Network (HFCN) conducted harmonised surveys on this topic in the majority of euro-area countries. The year 2012 was dedicated above all to the statistical processing of obtained data and to extracting initial findings from these survey data. In future, it will be necessary to conduct more in-depth anlyses. At the same time, the next survey round will have to be prepared. An additional network for the development of methods, indicators and models that can be used to improve macroprudential financial stability has continued its work. For this purpose, staff both worked on the development of early indicators of equity market bubbles and pushed ahead with a model designed to study the impact of various macroprudential instruments. Furthermore, Research Centre staff also contributed to an ESCB network, the objective of which is to obtain a better understanding of differences in competitiveness within the monetary union. This includes, among other things, the study of cross-border trade in services. As in previous years, studies conducted by the Bundesbank researchers participating in the Research Task Force of the Basel Committee on Banking Supervision helped to forge ahead with improvements to the international banking regulatory regime – this time by focusing, in particular, on stress tests for liquidity risk. At the same time, the Bundesbank continued its successful participation in the EU's Marie Curie Network on Risk Management and Risk Reporting of the preceding years by taking on visiting researchers and doctorate students.

Conferences and workshops

The second channel through which the Research Centre staff members keep in touch with other academics is by attending conferences and by organising Bundesbank conferences, workshops and seminars. In 2012, the Bundesbank held eight conferences and workshops, including the Spring Conference (together with

the Federal Reserve Bank of Philadelphia) entitled "Monetary Policy, Inflation and International Linkages" as well as the Autumn Conference (jointly with CESifo Munich) on "The Banking Sector and the State". The Research Centre also organises three weekly series of seminars, one of which is organised together with the ECB and the University of Frankfurt.

The third channel of interaction with the world of academia is provided through training events for the Bundesbank's own staff and a visitor programme allowing external researchers to visit the Bundesbank for temporary stays. In 2012, this framework enabled more than 100 academics and interns – mostly doctorate students – to spend time at the Research Centre.

Research Council and Research Professors

The fourth channel of interaction with academia is through Research Professors and a Research Council. Last year, Klaus Adam from the University of Mannheim and Christian Leuz from the University of Chicago were newly appointed as Research Professors. Thomas Laubach from the University of Frankfurt left this position. Since 2012, the members of the Research Council have been Richard Clarida (chairman, Columbia University), Axel Börsch-Supan (Max Planck Institute for Social Law and Social Policy), Markus Brunnermeier (Princeton University), Wolfgang Bühler (University of Mannheim) and Eric Leeper (Indiana University).

The Research Centre published 36 discussion papers last year. The majority of these papers will be published in scientific journals at a later stage. Over the same period, close to 50 articles written by Research Centre staff members were published or accepted for publication.

II Services the Deutsche Bundesbank provides for the public sector

Assistance in issuing Federal securities

The Bundesbank conducts the auctions of one-off issues of Federal securities and carries out market management operations for listed Federal securities on the German stock exchanges on behalf of the Federal Republic of Germany – Finance Agency. One-off issues of Federal securities are sold by auction through the Bund Issues Auction Group. The auction procedure is conducted using the electronic primary market platform Bund Bidding System (BBS) provided by the Bundesbank. In 2012, 70 auctions were carried out (2011: 68 auctions) which included seven auctions of inflation-linked instruments. The allotment volume was €214.2 billion (2011: €239.3 billion). The Bundesbank does not lend to the government or take Federal securities onto its own books in the context of either the German government's bond issuance programme or secondary market transactions involving Federal securities. The reporting year was the last in which the Bundesbank was involved, through credit institutions, in selling tap issues of Federal savings notes and Federal Treasury financing paper; the Federal Government discontinued the sale of tap issues at the end of 2012.

Cooperation with the European Financial Stability Facility

The Bundesbank provides operational support in the issuance of bonds by the European Financial Stability Facility (EFSF). In 2012, in addition to the settlement of EFSF debt securities issued in the underwriting procedure, 23 auctions of EFSF debt securities were conducted operationally via the EFSF Market Group. The auction procedure was carried out using the electronic primary market platform EFSF Bidding System (EBS) provided by the Bundesbank.

Asset management …

In its role as fiscal agent, the Bundesbank also performs asset management services on behalf of the Federal and state governments. It manages these assets under a passive strategy.

… for the Federal Government, …

Asset management services for the Federal Government cover several pension fund portfolios and the portfolio of the Monetary Stability Foundation. The Bundesbank was given the responsibility for managing this pension reserve after the Act on a Federal Government Pension Reserve *(Versorgungsrücklagegesetz des Bundes)* came into force in 1999. The reserve is partially funded by wage increases and serves to cover the Federal Government's increased pension burden in the years 2018 to 2032. In 2007, the Bundesbank was also given the task of managing the Federal Government's newly established pension fund. The purpose of this pension fund is to finance the pension claims of all Federal civil servants, judges and professional soldiers newly hired from 2007 onwards. The spectrum of investment instruments permitted by the Federal Government includes Federal securities as well as other investment-grade euro-denominated debt securities. For the pension fund, the German parliament also created the possibility of an index-linked investment of up to 10% of the assets in shares.

… for the Federal Employment Agency, …

At the beginning of 2008, the Federal Employment Agency's pension scheme was separated from that of the Federal Government and redesigned. The Bundesbank was appointed asset manager by law. This portfolio is subject to the investment rules of the Federal Government's reserve fund.

… for the Federal Financial Supervisory Authority (BaFin), …

The funded pension scheme for civil servants employed at the Federal Financial Supervisory Authority (BaFin) is also regulated outside the scope of the Act on a Federal Government Pension Reserve. Nevertheless, the portfolio managed by the Bundesbank for this scheme has a similar structure to that of the Federal Government's pension fund.

… for the Financial Market Stabilisation Agency …

Since October 2012, the Bundesbank has been tasked with the management of the special fund, the Restructuring Fund for Credit Institutions. The fund is managed on the basis of an administrative agreement, with guidelines and instructions from the Federal Agency for Financial Market Stabilisation.

… and for the Federal states

The Bundesbank also provides varying levels of asset management services for several state government pension reserves and funds.

III Own portfolio and management of the foreign reserves

Euro financial assets …

The Bundesbank invests in euro-denominated financial assets as balance sheet counterparts to the pension reserves for Bundesbank civil servants, the capital base, the statutory reserves and provisions for general risks. This own portfolio is invested in covered bonds under a buy-and-hold-to-maturity strategy.

… made available for securities lending

The Bundesbank has used the lending facility of the central securities depository Clearstream to make instruments from these euro-denominated portfolios, as well as bonds purchased under the Covered Bond Purchase Programmes (CBPP 1 and 2), available for automated securities lending. The objective is to improve the liquidity of the covered bond market and to reduce settlement failures.

Management of foreign reserves …

The management of the Bundesbank's foreign reserves includes the investment of foreign currency reserves and the stewardship of the IMF reserve position, as well as the management of

Development of gold reserves in the Federal Republic of Germany

With 3,391 tonnes of gold (109 million fine ounces) as at 31 December 2012, the Bundesbank possesses the second largest gold reserves in the world after the United States. The gold is currently stored at sites in New York (45%), Frankfurt (31%), London (13%) and Paris (11%).

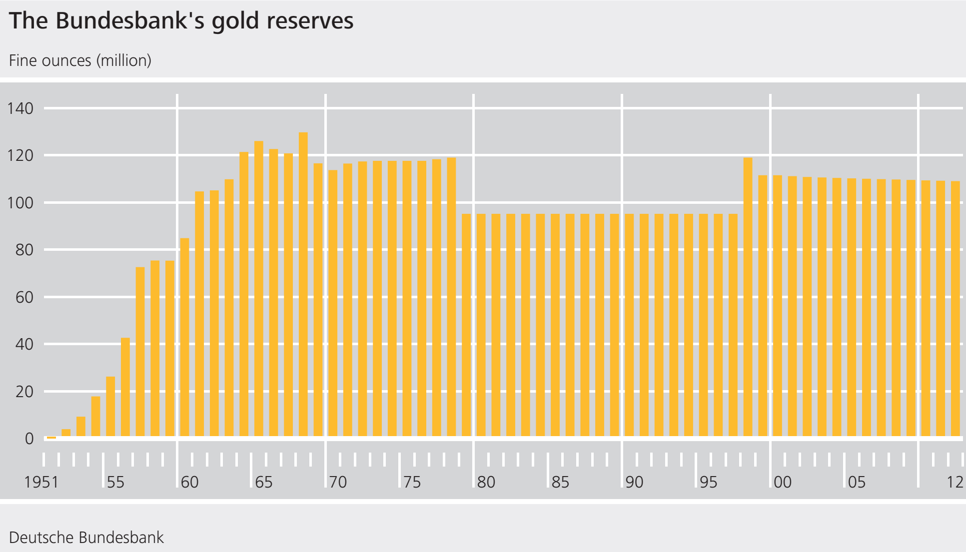
After the Second World War, the Federal Republic of Germany, founded in 1949, did not possess any gold reserves. It built up its reserves in the 1950s and 1960s during the time of the Bretton Woods gold standard. The Bundesbank initially accumulated its reserves through gold transfers from countries with external deficits as part of the European Payments Union (EPU), adding to them later when the United Kingdom drew on International Monetary Fund reserves, which was funded by transferring gold to the Bundesbank. The gold transfers physically took place at the traditionally major gold trading centres in New York, London and Paris, where the German reserves were subsequently stored. At the end of the 1960s, Germany's gold reserves reached their peak at 4,034 tonnes (129.69 million fine ounces) but were reduced again shortly afterwards following the sale of 409 tonnes (14 million fine ounces) to the US Treasury Department in 1969. In the 1970s, the reserves reached a plateau at just under 3,700 tonnes (around 117 million fine ounces). The next major outflow of 740 tonnes (23.8 million fine ounces) did not occur until 1979, when the European Monetary System (EMS) was founded. However, this gold was transferred back to the Bundesbank when the system was dissolved at the end of 1998. At the beginning of 1999, when European monetary union was established, the Bundesbank transferred 232 tonnes (7.46 million fine ounces) of gold, along with foreign reserve assets, to the ECB in line with the ECB's capital key. Since then, there has only been a very slight reduction in the Bundesbank's gold reserves each year for the purpose of minting government gold coins. The Bundesbank thus pursues a conservative strategy, largely avoiding gold purchases and sales on the market.

In view of the political tensions surrounding the Cold War, for a long time, gold reserves were stored – both for practical and security reasons – at their original transfer locations in the USA, the United Kingdom and France. Until 1997, only 77 tonnes, just over 2% of the total reserves, were held in Germany. It was only in 2000-01 that larger quantities of the gold (around 930 tonnes) were repatriated from London to Frankfurt to reduce storage costs and to use freed-up storage space in Frankfurt.

A review of the storage concept led the Bundesbank to concentrate its reserves in just three locations and to increase its use of the Frankfurt vaults in future. To this end, the Bundesbank is planning a phased relocation of 300 tonnes of gold from New York to Frankfurt as well as a transfer of all 374 tonnes stored in Paris to Frankfurt by 2020. This means that around 50% of Germany's gold reserves will be stored in Frankfurt, followed by 37% in New York, the leading financial centre for the US dollar, which is still the most important reserve currency in the world, and 13% in London, the world's largest centre for trading spot gold. On the one hand, the relocation reflects a change in circumstances; on the other, it will enable further freed-up vault capacity in Frankfurt to be used. After the

The Bundesbank's gold reserves

Fine ounces (million)



Deutsche Bundesbank

Cold War ended, the reasons for storing gold as far to the west and as far away from the Iron Curtain as possible no longer applied. The launch of the single European currency meant that it was no longer necessary to store gold in euro-area partner countries, while the introduction of euro banknotes and coins, which for many years tied up a large volume of vault storage as well as staff resources, has now opened up new storage possibilities.

gold reserves. Along with its own foreign reserve assets, the Bundesbank also manages part of the ECB's foreign reserves.

… on the basis of benchmarks …

The framework for managing the foreign currency reserves of the Bundesbank and the ECB is defined by benchmarks for the respective currency. These benchmarks reflect the desired long-term risk level and serve as a yardstick. The benchmarks for the Bundesbank's own reserves (in US dollars, yen and, since the fourth quarter of 2012, Australian dollars) are set annually by the Executive Board. The Bundesbank manages the ECB reserves for which it is responsible using benchmarks fixed by the Governing Council and Executive Board of the ECB (for US dollars and yen). Reserve management decisions may deviate from the benchmark within a narrow margin in order to outperform the benchmark.

In addition to US, Japanese and Australian government bonds, a limited volume of fixed-income securities of top-notch supranational issuers represent eligible investment instruments. In addition, the Bundesbank invests in money market products.

… and eligible investment instruments

Sales of gold under the gold coin programme

As part of its management of gold reserves, the Bundesbank has, since 2002, been selling small amounts each year to the Federal Office for Central Services and Unsettled Property Issues to mint gold coins. In 2012, it sold around 4.9 tonnes of gold in total for the minting of the €100 gold coin "UNESCO World Heritage – Aachen Cathedral" and the €20 gold coin "German forest – spruce". The sales took place under the extended gold agreement between the central banks of the Eurosystem, Switzerland and Sweden in August 2009. The Bundesbank's gold reserves are physical holdings of numbered gold bullion. They are stored in the Bundesbank's vaults and at three central banks abroad: the Federal Reserve Bank of New York, the Bank of England and the Banque de France (see box on page 125 and Table 15 on page 146).

IV Management of financial risks

Financial risks

The Bundesbank is exposed to various financial risks in fulfilling its statutory functions. Along with the counterparty credit risks, market risks, interest rate risks and liquidity risks associated with individual assets in the balance sheet, reputational risks resulting from financial losses should also be taken into consideration.

Managing the risks of own investments …

The responsibility for risk management generally rests with the Executive Board. It decides on the level and composition of foreign reserves and euro-denominated financial assets as well as on the internal rulebooks, which contain the risk-mitigating provisions for own portfolios and further business areas (in particular foreign exchange trading and central bank services). The monitoring, measurement, analysis and communication of business risks is conducted by the Office for Risk Control; this function is organisationally segregated from the risk-taking front office units up to and including board level. Recognised methods of calculating risk ratios, such as value-at-risk (VaR) and expected shortfall, are used to gauge the different types of risk. In addition, there are sensitivity analyses and stress tests. Business activities with the individual counterparties in the different instruments are governed by a differentiated limit system. The creditworthiness of the counterparties and securities issuers is monitored continuously. Risk monitoring results are documented in regular risk controlling reports to the Executive Board.

… and claims motivated by monetary policy

By contrast, the risk of claims arising from monetary policy operations as well as from securities portfolios held for monetary policy purposes is managed according to Eurosystem guidance, which is based on decisions by the ECB Governing Council. It is not primarily entries in the Bundesbank's balance sheet which are relevant for assessing the risk of claims on credit institutions related to monetary policy operations and the securities portfolio built up under the Securities Markets Programme (SMP), but the total amount of claims existing in the Eurosystem in this area. The Bundesbank would have to bear a share of losses arising in this context commensurate with its ECB capital share, which stands at around 27%.

By contrast, losses on securities purchased as part of both Eurosystem Covered Bond Purchase Programmes (CBPPs) would be borne by the respective central banks holding them. The Bundesbank used any available scope for investment decisions when conducting its purchases; however, for sales of securities it is bound by Eurosystem guidance in cases of non-compliance with credit rating thresholds.

Risks from monetary policy increased again

The analysis of risks from monetary policy operations shows a renewed increase of counterparty credit risk in 2012. This was attributable, in particular, to the increase in credit volumes. At the end of 2012, refinancing loans of €1,126.0 billion were recorded (end-2011: €863.6 billion). However, for the SMP, the aggregate volume in the Eurosystem declined slightly in 2012 (to €208.7 billion at the end of 2012 compared with €211.9 billion at the end of 2011).

Factors responsible for the high level of risk for lending related to monetary policy include the concentration of borrowing in certain countries and banks, the lowering of eligibility requirements for collateral posted by credit institutions in the wake of the financial crisis and an extension of maturities for open market lending. Furthermore, with regard to some of the monetary policy counterparties, in particular in the euro-area peripheral countries, reference should be made to a more unfavourable financial situation, which is also manifested in rating downgrades. Interdependencies between the borrowing banks and the collateral submitted by them are also becoming increasingly important in risk assessment.

Market risks predominant type of risk for foreign reserves

In the management of foreign reserves, the Bundesbank sets high standards for the security of its investments. The strong concentration on government bonds from the countries whose currencies are held serves to limit default risks. This mainly applies to the US dollar, yen and Australian dollar. Furthermore, fixed-income securities of selected supranational issuers with a very high credit rating, as well as investments at the Bank for International Settlements (BIS), are permitted to a certain extent. Short-term money market transactions with selected commercial banks are an additional option. For many years, they have only been conducted against the provision of high quality collateral.

The predominant types of risk for foreign reserves are market risks in the form of gold price risk and exchange rate risk. They are largely determined by the size of the gold holdings and the scope of the foreign currency portfolio and its investment currencies and are thus a direct consequence of the decision to hold foreign reserves. With regard to the gold price risk, a balance sheet loss owing to the prevailing revaluation position is very unlikely at the current time. When managing the interest rate risk of the foreign currency portfolio, the Bundesbank uses the concept of modified duration, a measure of how changes in the interest rate level affect the market value of investments.

Euro financial assets primarily invested in Pfandbriefe

The Bundesbank's proprietary portfolio, which is denominated in euro and which forms an asset-side counterpart to various items on the liabilities side of the balance sheet, is invested exclusively in covered bonds, which were issued on a legal basis. This type of security offers dual protection against default, as creditor claims in the case of insolvency of the issuer can be met by a cover fund. Minimum credit standards were set for eligible issuers as well as for the covered bonds. German Pfandbriefe, which enjoy particularly high creditor protection, make up the lion's share of the portfolio volume.

Rise in risk provisioning

In order to make provisions for balance sheet risks, for the 2012 annual accounts a further €6,671 million was added to the provisions for general risks (further information can be found in the explanatory notes on the balance sheet items in the analysis of the Deutsche Bundesbank's annual accounts on page 158).

TARGET2 balances …

Intra-Eurosystem claims should be considered separately in terms of risk and here particularly the TARGET2 net balance, which justifies a Bundesbank claim on the ECB. The positive TARGET2 balance, which increased from €463.1 billion to €655.7 billion in 2012, is ultimately the result of a decentralised provision of central bank liquidity and the existing imbalances in the liquidity needs of the banking systems in the individual countries. Liquidity is predominantly provided by means of the Eurosystem's monetary policy refinancing operations, but also by building up securities holdings and national central banks conducting operations on their own responsibility. The exact modalities of monetary policy operations are determined by the Governing Council of the ECB within the framework of its monetary policy mandate.

… and their risk assessment

As TARGET2 claims and liabilities of the national central banks in the Eurosystem are always on the ECB, the Bundesbank, as an ECB shareholder, might be indirectly affected by related risks to which the ECB is exposed. A financial disadvantage for the Bundesbank might materialise in a scenario in which a country with a TARGET2 liability leaves the single currency area and its central bank fails to meet its obligation to the ECB. As the Bundesbank considers this scenario to be unlikely, the risks arising from operations to provide liquidity are ultimately the decisive aspect for the purposes of TARGET2 claims.

Staff

I Staff

Further enhance attractiveness

In order to strike a balance between increasingly tough competition on the labour market and the growing need to recruit staff, especially highly qualified specialists, it is vital to further enhance the Bundesbank's attractiveness as an employer. Ensuring that an appropriate internal framework exists to achieve this has been laid down as an objective of Strategy 2016, and will be met by improving the compatibility of family and working life and implementing a demographically oriented health management programme, for example.

Nurturing potential managers

As part of our forward-looking staff planning, it is also important to specifically train junior staff for future managerial positions, including branch-level posts. Alongside professional qualifications, leadership skills in particular are of great importance when assuming managerial responsibilities, and are suitably fostered. In 2013, a mentoring programme will be introduced to increase the proportion of women in managerial positions. The programme will offer female junior members of staff the opportunity to benefit from the experiences of their male and female mentors.

Moderate reduction in staff

Despite the emerging need for more staff, the considerable success of consolidation over the past few years will not be called into question in the strategic cycle up to 2016. However, the reduction in staff levels will slow down sharply *inter alia* as a result of the high need for recruitment arising from new duties, for example those concerning the Bank's macroprudential mandate.

Bundesbank staff on 31 December 2012* Table 14

Item	Staff numbers[1]				Year-on-year changes			
	Total	Regional Offices	Branches	Central Office	Total	Regional Offices	Branches	Central Office
Civil servants	5,417	1,548	1,370	2,499	17	10	− 129	136
Salaried staff	5,408	1,451	1,769	2,188	− 52	29	− 204	123
Total	10,825	2,999	3,139	4,687	− 35	39	− 333	259
of which Trainees	537	143	0	394	− 15	− 28	0	13
Remainder Core staff	10,288	2,856	3,139	4,293	− 20	67	− 333	246
Memo item Core staff *pro rata* (full-time equivalent)	9,543.2	2,624.1	2,893.8	4,025.3	− 16.5	65.9	− 307.1	224.7

	End-2012	End-2011
* Not included:		
Members of staff on secondment	153	163
Members of staff on unpaid leave	335	379
Members of staff in the second phase of the partial retirement scheme	502	456
1 Of which part-time employees	2,068	2,041
Of which staff with temporary contracts	117	154

Deutsche Bundesbank

II Offices held by members of the Executive Board of the Deutsche Bundesbank

At its meeting on 12 July 2012, the Executive Board of the Deutsche Bundesbank, in consultation with the Corporate Governance Compliance Adviser, updated the Code of Conduct for the members of the Executive Board of the Deutsche Bundesbank. This code states, as before, that details of offices held by Board members on supervisory boards or similar inspection bodies of business enterprises shall be disclosed in the *Annual Report*.

The Board members hold the offices indicated below.

- Dr Jens Weidmann, President:
  Member of the Board of Directors, BIS;[1]
  Alternate, Administrative Council,
  LIKO-Bank (up to 27 April 2012)[2]

- Ms Sabine Lautenschläger, Deputy President:
  Alternate, Administrative Council,
  LIKO-Bank (up to 27 April 2012);[2]
  Member of the Administrative Council,
  LIKO-Bank (since 28 April 2012)[2]

- Dr hc Rudolf Böhmler:
  Member of the Supervisory Board of
  ARADEX AG, Lorch;
  Alternate, Administrative Council,
  LIKO-Bank (since 28 April 2012);[2]
  Member of the Board of Trustees,
  Monetary Stability Foundation

- Dr Andreas Dombret:
  Member of the Board of Directors, BIS;
  Member of the Administrative Council,
  LIKO-Bank (up to 27 April 2012);[2]
  Member of the Stock Exchange Expert Commission of the Federal Ministry of Finance;
  Alternate, Board of Trustees,
  Monetary Stability Foundation

- Dr Joachim Nagel:
  Alternate, Board of Directors, BIS;[1]
  Senior Vice-Chairman of the Administrative Council, LIKO-Bank;[2]
  Vice-Chairman of the Credit Committee, LIKO-Bank;[2]
  Standing guest on the Central Capital Market Committee

- Mr Carl-Ludwig Thiele:
  Alternate, Administrative Council,
  LIKO-Bank (since 28 April 2012);[2]
  Member of the Board of Trustees,
  Monetary Stability Foundation

1 Ex officio.
2 Partnership agreement.

Strategy 2016

1 Objective of Strategy 2016

Roadmap as internal and external guideline

In July 2012, the Executive Board adopted the Bundesbank's Strategy 2016, which provides a roadmap for the next few years as an internal and external guideline. Strategy 2016 facilitates the targeted deployment of financial and human resources, and provides an overview of the sequence of measures to be taken in the various business areas.

2 Evolution of Strategy 2016

Scenario analysis

The evolution of Strategy 2016 began with a scenario analysis that examined various possible development scenarios for the Bank's core business areas from both a realistic-optimistic and a risk-oriented viewpoint. Work on the strategy took its cue from that basis.

Basic features of the strategy

The Bundesbank's legal mandate stakes out a clear operational framework for the Bank. In addition, the Executive Board established top-down guidelines for Strategy 2016. The Bundesbank's activities are primarily geared to the objective of maintaining price stability. In this context, the Bank considers the contractual foundations of monetary union that are enshrined in the Maastricht Treaty as an indispensable underpinning.

Strategy process broadly anchored within the Bank

In the next stage of strategy preparation, the Executive Board set up working groups for the core business areas, communication and the Bank's internal framework. The heads of the relevant business units and the presidents of the Regional Offices were involved both in the working groups and in the senior management conferences with the Executive Board. This ensured that the strategy development process was broadly anchored within the Bank.

Consistent target system of goals and measures

The working groups' task was to review the overarching strategic goals contained in the last strategic cycle and to define new strategic goals where necessary. In addition, more concrete goals and measures were defined to turn the strategy into an operational plan. Particular emphasis was placed on the measurability of the progress made towards these goals.

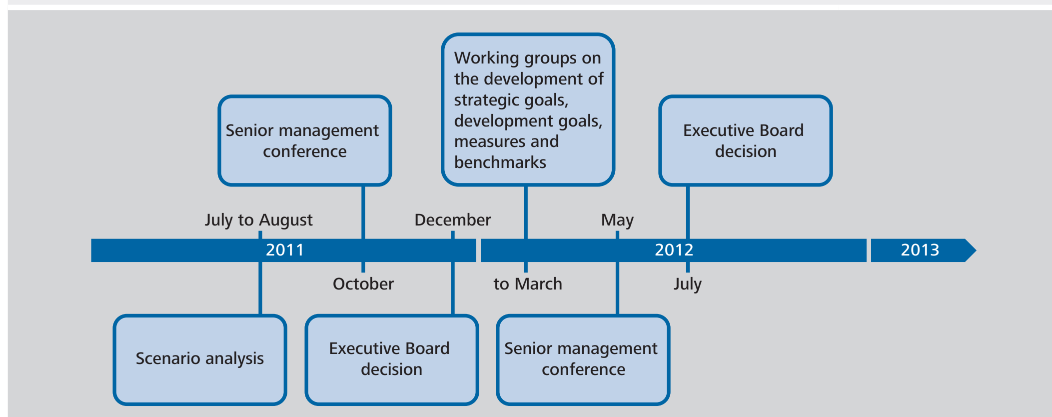
3 Key elements of Strategy 2016

Individual key elements of Strategy 2016 are presented below to illustrate the objectives the Bundesbank intends to pursue in the coming years, particularly in its core business areas.

Monetary policy

The Bundesbank will further strengthen its monetary policy expertise by conducting rigor-

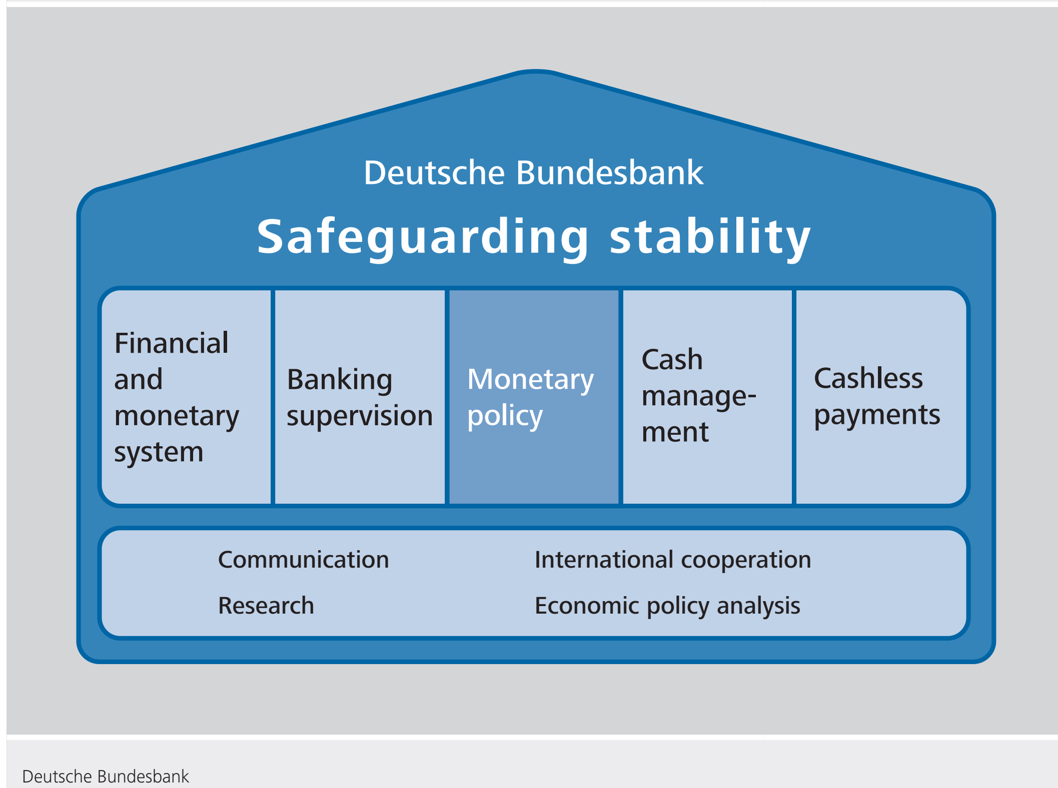
Strategy development process Chart 25



Deutsche Bundesbank

Strategy 2016

Chart 26



Deutsche Bundesbank

ous scientific analysis and producing robust research results. In the monetary policy debate the Bank will steadfastly propagate its primary objective of safeguarding price stability. In this context the Bundesbank will continue to advocate a monetary policy framework that is stability-oriented, risk-adequate and market-oriented.

Financial stability

One focal point in the core business area of financial stability will be to build the systems and structures for macroprudential oversight after this task was assigned to the Bundesbank as a new mandate with the adoption of the Act to Strengthen German Financial Supervision *(Gesetz zur Stärkung der deutschen Finanzaufsicht)* in October 2012. As a national competence centre for financial stability which analyses and evaluates risk factors in the financial system, the Bundesbank plays an important part in safeguarding financial and monetary stability. In order to prevent, avert or mitigate dangers for financial and monetary stability, the Bundesbank is tasked with factoring its analyses and evaluations into possible courses of action which it then presents to the German Financial Stability Committee.

Banking supervision

Through its active involvement in banking supervision, the Bundesbank aims to safeguard the stability and functional viability of German credit and financial services institutions. With regard to the reform of international supervisory standards, the Bundesbank is seeking to play a guiding role that will serve German financial stability. The tried and tested division of banking supervisory tasks between the Federal Financial Supervisory Authority (BaFin) and the Bundesbank has been maintained under the Act to Strengthen German Financial Supervision. Ongoing refinement of the supervisory mechanisms and a greater incorporation of macroeconomic insights should facilitate a more risk-oriented and preventive approach to monitoring individual institutions.

Payment systems

The Bundesbank plays a major role in ensuring the security and efficiency of payment processing and settlement. In tandem with the German banking industry, the Bundesbank will continue to push ahead with the project to create a Single Euro Payments Area (SEPA) next year. The main focus of the Bundesbank's operational role is on providing secure and efficient market infrastructures (like TARGET2 and TARGET2-Securities in cooperation with partner central banks). Moreover, through its involvement in the oversight of payment and settlement systems as well as of payment instruments, the Bundesbank contributes to the promotion of confidence in the euro.

Cash management

In the area of cash management, the Bundesbank fulfils its statutory mandate by ensuring an efficient cash supply (including in emergencies and times of crises), by safeguarding the high quality standard of banknotes and coins in circulation, and by preventing and combating the circulation of counterfeit money. In this way the Bank makes a significant contribution to maintaining and strengthening confidence in the currency. The Bundesbank discharges its responsibilities in this respect in cooperation with the banking industry, retailers and cash-handling firms. It plays a part in promoting cash recycling by third parties provided the fulfilment of its statutory mandate is ensured and the Bank retains appropriate direct involvement in the cash cycle. In order to maintain an appropriate level of involvement in the cash cycle, the Bundesbank aims to process a volume of around 15 billion banknotes per year; this is roughly equivalent to its annual processing volume in recent years.

Communication

Besides upgrading its internal communications, the Bank plans to focus its external communication activities even more closely on individual target groups. For example, direct communication with the general public is to be expanded, *inter alia*, via the new "Views and Insights" page of the Bundesbank's website. The objective is to optimise the Bank's ability to satisfy the general public's demand for accurate, timely and reliable information, particularly in times of crisis.

Internal framework

In the process of developing Strategy 2016, the existing array of tasks in all the business units was subject to critical review and the expected staffing requirements analysed. The results showed that, although new tasks have to be performed, the headcount target of 9,000 positions can be maintained until 2016 by reprioritising. Furthermore, the Bundesbank will meet the challenges posed by demographic change, deploy knowledge management instruments to deal with its consequences within the Bank, and take initiatives to further enhance its attractiveness as an employer.

Annual reviews

Annual strategy reviews will be carried out to evaluate the success of measures taken. If the framework conditions change, Strategy 2016 allows scope for adjustment, if necessary.

Annual accounts of the Deutsche Bundesbank for 2012

I Balance sheet of the Deutsche Bundesbank as at 31 December 2012

Assets

			31.12.2011
		€ million	€ million
1 Gold and gold receivables		137,513	132,874
of which: gold receivables €377,281.70			*(0)*
2 Claims on non-euro-area residents denominated in foreign currency			
2.1 Receivables from the IMF	22,344		(22,296)
2.2 Balances with banks, portfolio investment, external loans and other external assets	28,774		(29,433)
		51,118	51,730
3 Claims on euro-area residents denominated in foreign currency		3,341	18,128
4 Claims on non-euro-area residents denominated in euro		–	–
5 Lending to euro-area credit institutions related to monetary policy operations denominated in euro			
5.1 Main refinancing operations	2,855		(8,635)
5.2 Longer-term refinancing operations	69,651		(47,112)
5.3 Fine-tuning reverse operations	–		(–)
5.4 Structural reverse operations	–		(–)
5.5 Marginal lending facility	587		(49)
		73,093	55,797
6 Other claims on euro-area credit institutions denominated in euro		1,442	8,464
7 Securities of euro-area residents denominated in euro			
7.1 Securities held for monetary policy purposes	67,487		(66,981)
7.2 Other securities	–		(4,886)
		67,487	71,867
8 Claims on the Federal Government		4,440	4,440
9 Intra-Eurosystem claims			
9.1 Participating interest in the ECB	2,038		(1,722)
9.2 Claims arising from the transfer of foreign reserves to the ECB	10,909		(10,909)
9.3 Claims related to the allocation of euro banknotes within the Eurosystem (net)	–		(–)
9.4 Other claims within the Eurosystem (net)	654,948		(463,263)
		667,895	475,894
10 Items in course of settlement		2	3
11 Other assets			
11.1 Coins	838		(805)
11.2 Tangible and intangible fixed assets	909		(938)
11.3 Other financial assets	12,125		(10,472)
11.4 Off-balance-sheet instruments revaluation differences	46		(–)
11.5 Accruals and prepaid expenses	2,840		(2,506)
11.6 Sundry items	2,219		(3,725)
		18,977	18,447
		1,025,306	837,643

Liabilities

			31.12.2011
		€ million	€ million
1 Banknotes in circulation		227,231	221,264
2 Liabilities to euro-area credit institutions related to monetary policy operations denominated in euro			
2.1 Current accounts	129,607		(76,408)
2.2 Deposit facility	40,470		(66,069)
2.3 Fixed-term deposits	129,885		(86,395)
2.4 Fine-tuning reverse operations	–		(–)
		299,962	228,873
3 Other liabilities to euro-area credit institutions denominated in euro		–	–
4 Liabilities to other euro-area residents denominated in euro			
4.1 General government deposits	11,870		(745)
4.2 Other liabilities	28,059		(4,756)
		39,929	5,501
5 Liabilities to non-euro-area residents denominated in euro		83,284	46,552
6 Liabilities to euro-area residents denominated in foreign currency		3	7
7 Liabililies to non-euro-area residents denominated in foreign currency		76	–
8 Counterpart of special drawing rights allocated by the IMF		14,058	14,311
9 Intra-Eurosystem liabilities			
9.1 Liabilities related to the issuance of ECB debt certificates	–		(–)
9.2 Liabilities related to the allocation of euro banknotes within the Eurosystem (net)	200,308		(170,489)
9.3 Other liabilities within the Eurosystem (net)	–		(–)
		200,308	170,489
10 Items in course of settlement		1	1
11 Other liabilities			
11.1 Off-balance-sheet instruments revaluation differences	–		(418)
11.2 Accruals and income collected in advance	397		(641)
11.3 Sundry items	2,919		(2,486)
		3,317	3,545
12 Provisions		18,898	12,046
13 Revaluation accounts		132,577	129,411
14 Capital and reserves			
14.1 Capital	2,500		(2,500)
14.2 Statutory reserves	2,500		(2,500)
		5,000	5,000
15 Profit for the year		664	643
		1,025,306	837,643

II Profit and loss account of the Deutsche Bundesbank for the year 2012

			2011
		€ million	€ million
1.1 Interest income	11,001		(8,556)
1.2 Interest expense	– 2,742		(– 3,786)
1 Net interest income		8,259	4,770
2.1 Realised gains/losses arising from financial operations	832		(617)
2.2 Write-downs on financial assets and positions	– 52		(– 3)
2.3 Transfers to/from provisions for general risks, foreign exchange risks and price risks	– 6,671		(– 4,141)
2 Net result of financial operations, write-downs and risk provisions		– 5,891	– 3,527
3.1 Income from fees and commissions	63		(67)
3.2 Expenses relating to fees and commissions	– 21		(– 19)
3 Net income from fees and commissions		42	48
4 Income from participating interests		195	240
5 Net result arising from allocation of monetary income		– 689	323
6 Other income		185	96
Total net income		2,100	1,950
7 Staff costs		706	614
8 Other administrative expenses		324	306
9 Depreciation of tangible and intangible fixed assets		113	107
10 Banknote printing		91	71
11 Other expenses		203	209
Profit for the year		664	643

Frankfurt am Main, 12 February 2013

DEUTSCHE BUNDESBANK
Executive Board

Dr Jens Weidmann   Sabine Lautenschläger

Dr hc Rudolf Böhmler   Dr Andreas Dombret   Dr Joachim Nagel   Carl-Ludwig Thiele

III Unqualified auditor's report for statutory audits of annual financial statements

We have audited the annual financial statements – consisting of the balance sheet and the profit and loss account – together with the bookkeeping system of the Deutsche Bundesbank for the business year from 1 January 2012 to 31 December 2012. The maintenance of the books and records and the preparation of the annual financial statements in accordance with generally accepted accounting principles and the principles for the accounting of the Deutsche Bundesbank approved by the Executive Board pursuant to section 26 (2) of the Bundesbank Act are the responsibility of the Executive Board of the Deutsche Bundesbank. Our responsibility is to express an opinion on the annual financial statements, together with the bookkeeping system, based on our audit.

We conducted our audit of the annual financial statements in accordance with section 317 HGB ["Handelsgesetzbuch": "German Commercial Code"] and German generally accepted standards for the audit of financial statements promulgated by the Institut der Wirtschaftsprüfer *[Institute of Public Auditors in Germany]* (IDW). Those standards require that we plan and perform the audit such that misstatements materially affecting the presentation of the net assets, financial position and results of operations in the annual financial statements in accordance with [German] principles of proper accounting are detected with reasonable assurance. Knowledge of the business activities and the economic and legal environment of the Deutsche Bundesbank and expectations as to possible misstatements are taken into account in the determination of audit procedures. The effectiveness of the accounting-related internal control system and the evidence supporting the disclosures in the books and records as well as the annual financial statements are examined primarily on a test basis within the framework of the audit. The audit includes assessing the accounting principles used and significant estimates made by the management, as well as evaluating the overall presentation of the annual financial statements. We believe that our audit provides a reasonable basis for our opinion.

Our audit has not led to any reservations.

In our opinion, based on the findings of our audit, the annual financial statements comply with the legal requirements and the additional provisions of the principles for the accounting of the Deutsche Bundesbank and give a true and fair view of the net assets, financial position and results of operations of the Deutsche Bundesbank in accordance with [German] principles of proper accounting.

Eschborn / Frankfurt am Main,
26 February 2013

Ernst & Young GmbH
Wirtschaftsprüfungsgesellschaft

Müller-Tronnier
Wirtschaftsprüfer

Kuhlmann
Wirtschaftsprüferin

Overview of the principles for the accounting of the Deutsche Bundesbank

General accounting principles

Record of economic reality, thus reflecting the Bundesbank's assets and liabilities, financial position and profitability; prudence; account to be taken of post-balance-sheet events that affect the balance sheet; materiality; going-concern principle; accruals principle (income and expense to be recognised in the accounting period in which they are earned or incurred); consistency and comparability.

Recording of spot transactions

Spot transactions in gold and foreign currencies shall be taken into account as from the trade date for ascertaining the average acquisition costs and the realised gains and losses. The balance sheet recording of these spot transactions and of spot transactions in securities shall be based on the date of payment (settlement date).

Balance sheet valuation rules

Gold, foreign currency instruments, securities and financial instruments shall be valued at mid-market rates and prices on the balance sheet date. Securities held to maturity and non-marketable securities are valued at amortised cost.

No distinction shall be made between price and currency revaluation differences for gold, but a single gold revaluation difference shall be accounted for on the basis of the euro price per defined unit of weight of gold derived from the euro-US dollar exchange rate on the balance sheet date.

Revaluation shall take place on a currency-by-currency basis for foreign exchange (including off-balance-sheet transactions).

In the case of securities, each revaluation shall be on a code-by-code basis (same ISIN number/type).

Repurchase agreements

A repurchase agreement (repo) shall be recorded as a collateralised inward deposit on the liabilities side of the balance sheet while the item that has been given as collateral remains on the assets side of the balance sheet. A reverse repurchase agreement (reverse repo) shall be recorded as a collateralised outward loan on the assets side of the balance sheet for the amount of the loan.

In the case of security lending transactions, the assets shall remain on the balance sheet of the transferor.

Income recognition

Realised gains and realised losses can arise only in the case of transactions leading to a reduction in securities items or currency positions. They are derived from a comparison of the transaction value with the acquisition value as calculated using the average method; they shall be taken into the profit and loss account.

Unrealised gains and unrealised losses arise as a result of the revaluation through a comparison of the market value with the acquisition value as calculated using the average method. Unrealised gains shall not be recognised as income but shall be transferred directly to a revaluation account.

Unrealised losses shall be taken into the profit and loss account if they exceed previous unrealised gains registered in the corresponding revaluation account. Unrealised losses recorded in the profit and loss account in previous years shall not be reversed in subsequent years in the event of new unrealised gains. There shall be no netting of unrealised losses in any one security, in any currency or in gold holdings against unrealised gains in other securities, currencies or gold.

The average cost method shall be used on a daily basis for calculating the acquisition cost in the case of assets that are subject to exchange rate and/or price movements. The average cost price or rate of the assets shall be reduced by unrealised losses taken into the profit and loss account at the end of the year.

Premiums or discounts arising on purchased securities shall be treated as part of interest income and shall be amortised using the implicit rate of return method.

Accrual and deferral items covering foreign currency holdings shall be converted at the mid-market rate on each business day and change the respective foreign currency position.

Accounting rules for off-balance-sheet instruments

Foreign exchange forward transactions, the forward legs of foreign exchange swaps and other currency instruments involving an exchange of one currency for another at a future date shall be included in the foreign currency position as from the trade date.

Interest rate swaps, futures, forward rate agreements and other interest rate instruments shall be accounted for and valued on an item-by-item basis.

Gains and losses arising from off-balance-sheet instruments shall be treated in a similar manner to those from spot transactions.

Tangible and intangible fixed assets

Tangible and intangible fixed assets shall be valued at cost less depreciation, which shall be calculated on a straight-line basis and applied over the expected economic life of the assets. A distinction shall be made as follows:

- Computers, related hardware and software, and motor vehicles: four years
- Equipment, furniture and installed equipment: ten years
- Building and capitalised refurbishment expenditure: 25 years
- Depreciation shall not apply to land

Tangible and intangible fixed assets, the acquisition value of which, after deduction of value added tax, is less than €10,000 shall be fully amortised in the year in which they were acquired.

Provisions

With the exception of the provisions for Eurosystem monetary policy operations, the regulations set forth in the Commercial Code *(Handelsgesetzbuch)* continue to apply to the reporting of provisions in the balance sheet. Pursuant to section 26 (2) of the Bundesbank Act *(Bundesbankgesetz),* the creation of liability items for general risks associated with domestic and foreign business is possible.

Transitional arrangements

The assets and liabilities shown in the closing Deutsche Mark balance sheet of 31 December 1998 shall be revalued on 1 January 1999. Unrealised gains arising on or before 1 January 1999 are to be recorded separately from the unrealised gains which arise after 1 January 1999. The market rates/prices applied by the Bundesbank in the euro-denominated opening balance sheet of 1 January 1999 shall be deemed to be the average acquisition rates/prices as at 1 January 1999. The revaluation items for unrealised gains accruing on or before 1 January 1999 shall be dissolved only in connection with decreases in value and in the event of disposals after 1 January 1999.

IV General information on annual accounts

Legal basis

Sections 26 and 27 of the Bundesbank Act *(Bundesbankgesetz)* form the legal basis for the annual accounts and the distribution of profit. In accordance with the provisions on accounting laid down in the second sentence of section 26 (2), the Bundesbank may apply the accounting principles governing the annual accounts of the ECB.

Accounting principles of the Deutsche Bundesbank

The Governing Council of the ECB adopted the principles it applies to its annual accounts in accordance with Article 26.2 of the ESCB Statute. The Deutsche Bundesbank decided to adopt those principles as the "accounting principles of the Deutsche Bundesbank".[1] An overview of the principles for the accounting of the Deutsche Bundesbank is given above.

Balance sheet entry of euro banknotes and …

The ECB and the national central banks of the euro-area countries, which together comprise the Eurosystem, issue banknotes denominated in euro. The following allocation procedure was approved for recording the euro banknotes in circulation in the financial statements of the individual central banks in the Eurosystem.[2] The respective share of the total value of euro banknotes in circulation due to each central bank in the Eurosystem is calculated on the last business day of each month in accordance with the banknote allocation key. The ECB is allocated an 8% share of the total value of the euro banknotes in circulation, whereas the remaining 92% is allocated to the national central banks in proportion to their respective paid-up shares in the capital of the ECB. In the year under review, the Bundesbank had a 27.1% share in the fully paid-up capital of the ECB and therefore a 24.9% share of the euro banknotes in circulation in accordance with the banknote allocation key. The value of the Bundesbank's share in the total amount of euro banknotes issued by the Eurosystem is shown in item 1 "Banknotes in circulation" on the liabilities side of the balance sheet.

… of intra-Eurosystem balances arising from the allocation of euro banknotes

The difference between the value of the euro banknotes allocated to each central bank of the Eurosystem in accordance with the banknote allocation key and the value of the euro banknotes that this national central bank actually puts into circulation gives rise to remunerated intra-Eurosystem balances.[3] If the value of the euro banknotes actually issued is greater than the value according to the banknote allocation key, the difference is recorded in the balance sheet in liability sub-item 9.2 "Liabilities related to the allocation of euro banknotes within the Eurosystem (net)". If the value of the euro banknotes actually issued is less than the value according to the banknote allocation key, the difference is recorded in asset sub-item 9.3 "Claims related to the allocation of euro banknotes within the Eurosystem (net)". These balances are remunerated at the respective rate of the main refinancing operations.

In the year of the cash changeover and in the following five years, the intra-Eurosystem balances arising from the allocation of euro banknotes within the Eurosystem are adjusted in order to avoid significant changes in NCBs' relevant income positions from those in previous years. The adjustments are made by taking into account the differences between the average value of the banknotes that each national central bank had in circulation in the reference period and the average value of the banknotes that would have been allocated to them during that period in accordance with the ECB's capital key. The adjustments are reduced in annual stages until the first day of the sixth year after the year of the cash changeover. Thereafter, in-

1 Published as a revised edition in Bundesbank Notice No 10002/2013 of 21 February 2013.
2 Decision of the European Central Bank of 13 December 2010 on the issue of euro banknotes (ECB/2010/29).
3 Decision of the European Central Bank of 25 November 2010 on the allocation of monetary income of the national central banks of member states whose currency is the euro (ECB/2010/23), as amended by the decision of the European Central Bank of 3 November 2011 (ECB/2011/18).

come from euro banknotes is allocated fully in proportion to the NCBs' paid-up shares in the ECB's capital. In the year under review, the adjustments resulted from the accession of the central bank of Slovenia in 2007, the Maltese and the Cypriot central banks in 2008, the Slovakian central bank in 2009, and the Estonian central bank in 2011. The adjustment relating to the accession of the Slovenian central bank ended on 31 December 2012; the other adjustments will be phased out accordingly by 31 December 2013, 2014 and 2016. The interest income and interest expense arising from the remuneration of the intra-Eurosystem balances are cleared through the accounts of the ECB and are shown in the profit and loss account of the Bundesbank in item 1 "Net interest income".

The ECB's interim profit distribution

The ECB's income from the transfer of 8% of the euro banknotes in circulation to the ECB as well as from securities purchased by the ECB as part of the "Securities Markets Programme" is allocated to the national central banks of the Eurosystem in the form of an interim distribution of profit in the financial year in which the income arose, unless the ECB's net profit for the year is less than this income or, as a result of a decision by the Governing Council of the ECB, the amount is retained for allocation to a risk provision.[4] For the financial year 2012, €575 million of the aforementioned ECB income (€652 million in the previous year) was distributed among the national central banks as interim profit for the profit and loss accounts 2012 in January 2013. The Bundesbank's share of €156 million (€176 million in the previous year) is shown under item 4 "Income from participating interests" in its profit and loss account.

Preparation and auditing of financial statements

The Executive Board drew up the Bundesbank's financial statements for the financial year 2012 on 12 February 2013. The financial statements were audited by Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft, Eschborn/Frankfurt am Main. The Executive Board had appointed the firm as external auditors on 25 November 2008 in accordance with section 26 (3) of the Bundesbank Act. The auditors confirmed without qualification on 26 February 2013 that the Bundesbank's financial statements for 2012 – consisting of the balance sheet and the profit and loss account – comply with the statutory provisions and the additional provisions of the principles for the accounting of the Deutsche Bundesbank and give a true and fair view of the net assets, financial position and results of operations of the Deutsche Bundesbank. After studying the external auditors' report, the Executive Board decided to publish the financial statements and transfer the Bundesbank's profit to the Federal Government on 12 March 2013.

4 Decision of the European Central Bank of 25 November 2010 on the interim distribution of the income of the European Central Bank on euro banknotes in circulation and arising from securities purchased under the Securities Markets Programme (ECB/2010/24), as amended by the decision of the European Central Bank of 19 December 2012 (ECB/2012/33).

V Notes on the individual balance sheet items

1 Assets

1 Gold and gold receivables

As at 31 December 2012, the Bundesbank's physical holdings (bars) of fine gold (ozf) amounted to 3,391,364 kg or 109 million ounces. These are supplemented by an additional 9 kg of gold receivables that were generated by the settlement of margins in the context of gold transactions. The gold was valued at market prices at the end of the year (1 kg =

Gold reserves by storage location — Table 15

Storage location	31.12.2012 tonnes	31.12.2012 € million	31.12.2011 tonnes	31.12.2011 € million	Year-on-year change tonnes	tonnes %	€ million	€ million %
Deutsche Bundesbank, Frankfurt	1,036	42,013	1,036	40,537	–	–	1,476	3.6
Federal Reserve Bank, New York	1,536	62,298	1,536	60,109	–	–	2,189	3.6
Bank of England, London	445	18,047	450	17,606	– 5	– 1.1	441	2.5
Banque de France, Paris	374	15,154	374	14,621	–	–	532	3.6
Total	3,391	137,513	3,396	132,874	– 5	– 0.1	4,639	3.5

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€40,547.85 or 1 ozf = €1,261.179). In the year under review, the gold holdings declined by 4,929 kg or 0.2 million ounces. This was due to the sale of gold to the Federal Government at market prices for the purpose of minting gold coins.

2 Claims on non-euro-area residents denominated in foreign currency

This item comprises the claims on the International Monetary Fund (IMF) as well as balances with banks, portfolio investment, loans and other foreign currency claims on non-euro-area residents.

2.1 Receivables from the IMF

Sub-item 2.1 contains the claims on the IMF which are financed and held by the Bundesbank and which arise from Germany's membership of the IMF. The claims, which total SDR19,167 million (€22,344 million), are made up of the drawing rights within the reserve tranche, special drawing rights and loans under the New Arrangements to Borrow (NAB).

The drawing rights within the reserve tranche correspond to the amounts actually paid to the IMF in gold, special drawing rights, foreign exchange and national currency under the German quota. The drawing rights held represent

Receivables from the IMF — Table 16

Item	31.12.2012 SDR million	31.12.2012 € million	31.12.2011 SDR million	31.12.2011 € million	Year-on-year change SDR million	SDR million %	€ million	€ million %
German quota	14,566	16,980	14,566	17,285	–	–	– 306	– 1.8
less euro balances	10,085	11,757	10,319	12,246	– 234	– 2.3	– 489	– 4.0
Drawing rights within the reserve tranche	4,480	5,223	4,246	5,039	234	5.5	184	3.6
Special drawing rights	11,652	13,583	11,897	14,118	– 245	– 2.1	– 535	– 3.8
New Arrangements to Borrow	3,034	3,537	2,645	3,139	390	14.7	399	12.7
Total	19,167	22,344	18,788	22,296	379	2.0	47	0.2

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the difference between the German quota of SDR14,566 million (€16,980 million) and the euro balances amounting to €11,757 million (SDR10,085 million) at the disposal of the IMF at the end of the year. In 2012, there was a net increase of SDR234 million to SDR4,480 million (€5,223 million) in the holdings of drawing rights within the reserve tranche.

Special drawing rights, by means of which convertible currencies can be obtained at any time, amounting to SDR12,059 million were allocated free of charge. A corresponding counterpart is shown as liability item 8, "Counterpart of special drawing rights allocated by the IMF". In 2012, the holdings of special drawing rights declined by SDR245 million to SDR11,652 million.

NABs are multilateral credit lines with the Fund, which serve as a backstop for use in the event of a systemic crisis and have been activated since 1 April 2011. Recourse to NABs is only possible with IMF approval once their activation has been agreed. The Bundesbank's NAB credit line amounts to SDR25.4 billion. At the end of the reporting year, this resulted in receivables from the IMF of SDR3,034 million (€3,537 million). IMF programmes that were agreed before 1 April 2011 will continue to be financed using the bilateral credit line that has been in place since 2009, and the resulting claims will be transferred to the NAB on the same day. There were therefore no receivables arising from bilateral loans at the end of the year.

If all items on the assets side and the liabilities side of the balance sheet are taken into account, the net special drawing rights item amounted to SDR7,108 million, compared with SDR6,731 million in the previous year. The valuation is based on the reference rate of SDR1 = €1.1657 (2011: SDR1 = €1.1867) calculated by the ECB at the end of the year for all central banks participating in the Eurosystem.

2.2 Balances with banks, portfolio investment, external loans and other external assets

The balances with banks, portfolio investment, loans and other foreign currency claims which are shown in sub-item 2.2 amounted to €28,774 million at the end of 2012, compared with €29,433 million on 31 December 2011 (see table below). These consist almost exclusively of US dollar holdings in the amount of US$34,098 million (€25,844 million), representing a decline of US$1,375 million on the year. The sub-item also contains holdings in yen (¥201,830 million equivalent to €1,777 million) and in Australian dollar (A$1,449 equivalent to €1.140 million) as well as a very small amount in other currencies. The holdings are interest-bearing. If all items on the assets side and the liabilities side of the balance sheet are

Balances with banks, portfolio investment, external loans and other external assets

Table 17

	31.12.2012	31.12.2011	Year-on-year change	
Item	€ million	€ million	€ million	%
Current account holdings and overnight deposits	626	676	– 50	– 7.4
Claims arising from reverse repurchase agreements	3,377	3,802	– 425	– 11.2
Fixed-term deposits and deposits at notice	385	–	385	.
Marketable securities				
Government bonds	23,655	22,512	1,143	5.1
Supranational institutions	620	2,321	– 1,701	– 73.3
Other	110	122	– 12	– 9.6
Total	28,774	29,433	– 659	– 2.2

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taken into account, the net US dollar item valued at market prices amounted to US$34,109 million, compared with US$35,611 million in 2011, and the net yen item valued at market prices amounted to ¥201,957 million, compared with ¥201,041 million in 2011, while the net Australian dollar item stood at A$1,445 million. The foreign currency items were valued at the respective end-of-year market rate; in the case of the US dollar item this amounted to €1 = US$1.3194 (2011: €1 = US$1.2939), for the yen item €1 = ¥113.61 (2011: €1 = ¥100.20) and for the Australian dollar item €1 = A$1.2712.

3 Claims on euro-area residents denominated in foreign currency

This item contains €3,341 million of US dollar claims on credit institutions resulting from refinancing operations in the context of the temporary swap agreement with the Federal Reserve (2011: €18,128 million). In order to carry out these operations, the ECB receives US dollars from the Federal Reserve in return for euro based on the swap agreement; the ECB then makes these available to the national central banks, which pass them on to euro-area credit institutions. The TARGET2 liabilities resulting from swap transactions between the ECB and the Bundesbank lower the TARGET2 claim on the ECB shown in asset sub-item 9.4 “Other claims within the Eurosystem (net)”.

5 Lending to euro-area credit institutions related to monetary policy operations denominated in euro

The volume and structure of liquidity-providing monetary policy operations carried out by the Bundesbank as part of the Eurosystem are shown in this item (main and longer-term refinancing operations, liquidity-providing fine-tuning operations and the marginal lending facility). At the end of the reporting year, the Eurosystem’s corresponding outstanding monetary policy operations amounted to €1,126,019 million (2011: €863,568 million), of which the Bundesbank held €73,093 million (2011: €55,797 million). Pursuant to Article 32.4 of the ESCB Statute, risks from these operations, provided they materialise, are shared among the Eurosystem national central banks in proportion to the prevailing ECB capital key shares. Losses only arise if the counterparty involved in a monetary policy operation defaults and the collateral provided by the latter proves insufficient upon realisation. However, the Governing Council of the ECB has ruled out risk-sharing for certain types of collateral, which the national central banks may nevertheless accept as collateral on their own responsibility.

Main refinancing operations are regular weekly transactions with a normal one-week maturity, the purpose of which is to provide liquidity. In the reporting year, main refinancing operations were conducted as fixed-rate tenders with full allotment. At the end of the year, the main refinancing operations amounted to €2,855 million, which was €5,780 million less than on 31 December 2011. On a daily average, the main refinancing operations amounted to €2,126 million (2011: €17,390 million).

Longer-term refinancing operations with a maturity of between one maintenance period and three years were carried out in the year under review with the purpose of providing longer-term liquidity. The operations were conducted as fixed-rate tenders with full allotment at the main refinancing rate. The volume of these transactions amounted to €69,651 million at the end of 2012 and was therefore €22,539 million greater than the volume of the previous year. On a daily average, the volume of longer-term refinancing operations was €69,488 million (2011: €34,718 million).

The marginal lending facility is available at a predetermined interest rate (standing facility). At the end of 2012, recourse to this facility amounted to €587 million (previous year-end: €49 million). The extent to which it was being used on a daily average came to €126 million (2011: €64 million).

6 Other claims on euro-area credit institutions denominated in euro

This item, amounting to €1,442 million (2011: €8,464 million), consists in particular of fixed-term deposits which are held at credit institutions and which arise from funds received in connection with central bank services (see

liability item 5 "Liabilities to non-euro-area residents denominated in euro").

7 Securities of euro-area residents denominated in euro

This item contains covered bonds denominated in euro as well as bonds of euro-area sovereign issuers which are held to maturity and valued at amortised cost. Purchases as part of the Eurosystem's Covered Bond Purchase Programme (CBPP), Securities Markets Programme (SMP) and Second Covered Bond Purchase Programme (CBPP2), which the ECB Governing Council approved on 7 May 2009, 9 May 2010 and 6 October 2011 respectively, are shown under sub-item 7.1 "Securities held for monetary policy purposes". Other holdings of euro-denominated covered bonds shown under sub-item 7.2 "Other securities" in the previous year were moved to sub-item 11.3 "Other financial assets" (see sub-item 11.3 "Other financial assets") in the reporting year.

The Bundesbank's securities holdings under the CBPP amounted to €12,591 million at the end of 2012 (2011: €14,827 million). The balance sheet value of CBPP2 holdings increased by €3,306 million to €4,325 million as a result of the Bundesbank's newly purchased securities in 2012.

At the end of 2012, the Eurosystem national central banks' SMP holdings amounted to €192,608 million (2011: €194,155 million), of which the Bundesbank held €50,570 million (2011: €51,135 million). Pursuant to Article 32.4 of the ESCB Statute, all risks from these operations, provided they materialise, are shared among the Eurosystem national central banks in proportion to the prevailing ECB capital key shares. The Governing Council of the ECB decided that no write-downs were required as at 31 December 2012 for Greek bonds contained in the SMP holdings. This decision was based, first, on the fact that neither the exchange of Greek bonds carried out in February 2012 (whereby all Eurosystem central banks exchanged their Greek SMP bonds for new ones that were not part of the Greek debt restructuring effort subject to the same conditions) nor the buybacks of Greek bonds performed in December 2012 (in which the Eurosystem central banks did not participate) led to any losses (or profits) for Eurosystem central banks. Second, despite the prevailing uncertainties regarding Greece's implementation of the macroeconomic adjustment programmes, it is expected that all payment obligations relating to the Greek bonds contained in Eurosystem central banks' SMP holdings will continue to be met as agreed.

8 Claims on the Federal Government

This item shows the equalisation claims on the Federal Government and the non-interest-bearing debt register claim in respect of Berlin; both date back to the currency reform of 1948. They form the balance sheet counterpart of the amounts paid out at that time in cash per capita and per enterprise and of the initial provision of credit institutions and public corporations with central bank money. Equalisation claims yield interest at the rate of 1% per annum. In conjunction with Article 123 of the Treaty on the Functioning of the European Union (Lisbon Treaty), it has been stipulated that equalisation claims and the debt register claim are to be redeemed in ten annual instalments, starting in the year 2024.

9 Intra-Eurosystem claims

The Bundesbank's claims on the ECB and on the other central banks participating in the Eurosystem are combined in this item.

Sub-item 9.1 shows the Bundesbank's participating interest in the ECB. Pursuant to Article 28 of the ESCB Statute, the ESCB national central banks are the sole subscribers to the capital of the ECB. In accordance with rules laid down in Article 29.3 of this statute, the key for subscription to the ECB's capital was adjusted with effect from 1 January 2009. Since then, the Bundesbank has had an 18.9% share of the ECB's subscribed capital. Pursuant to a decision of the Governing Council of the ECB,[5] the ECB's

5 Decision of the European Central Bank of 13 December 2010 on the increase of the European Central Bank's capital (ECB/2010/26).

capital was increased by €5 billion with effect from 29 December 2010. The capital is paid in by the Eurosystem national central banks in three equal annual instalments. The Bundesbank's capital contribution amounts to a total of €947 million; as at 27 December 2012, as in the previous year, €316 million was transferred to the ECB as a TARGET2 payment (see sub-item 9.4 "Other claims within the Eurosystem (net)"). As a result, the Bundesbank's participating interest in the ECB increased from €1,722 million to €2,038 million.

Sub-item 9.2 contains the Bundesbank's euro-denominated claims arising from the transfer of foreign reserves to the ECB. At the beginning of 1999, the central banks participating in the Eurosystem transferred foreign reserves (15% in gold and 85% in foreign currency) to the ECB in accordance with Article 30 of the ESCB Statute. Adjustments to the key for subscribing to the ECB's capital also result in adjustments to the Bundesbank's claims arising from the transfer of foreign reserves to the ECB. On 31 December 2012, these claims amounted to €10,909 million. As the transferred gold does not earn any interest, the claims are remunerated at 85% of the respective interest rate for the main refinancing operations.

Sub-item 9.3 "Claims related to the allocation of euro banknotes within the Eurosystem (net)" shows the claims which arise from applying the banknote allocation key. As at the end of 2011, the Bundesbank had no claims at the end of 2012 and instead recorded liabilities, which are shown in liability sub-item 9.2 "Liabilities related to the allocation of euro banknotes within the Eurosystem (net)".

A daily net balance vis-à-vis the ECB is derived from settlement balances between the central banks of the ESCB which result from cross-border payments as part of the TARGET2 large-value payment system. In 2012, as in 2011, the German banking system received extensive central bank money via TARGET2; at the end of the year, the Bundesbank's net claim on the ECB thus rose by €192,536 million to €655,670 million and is shown under sub-item 9.4 "Other claims within the Eurosystem (net)". The net balance (with the exception of unremunerated intra-Eurosystem balances resulting from the swap transactions between the ECB and the Bundesbank, see asset item 3 "Claims on euro-area residents denominated in foreign currency") are remunerated at the respective interest rate for main refinancing operations. On a daily average, the interest-bearing net claim amounted to €675,765 million (2011: €367,835 million). This item also contains the liabilities of €877 million arising from the allocation of monetary income to the national central banks (see profit and loss item 5 "Net result arising from allocation of monetary income") and the €156 million claim on the ECB arising from the interim distribution of profit (see General information on annual accounts).

10 Items in course of settlement

This item contains the asset items arising from payments still being processed within the Bundesbank.

11 Other assets

The Bundesbank's holdings of euro coins are shown in sub-item 11.1 "Coins". New coins are received from the federal mints at their nominal value for the account of the Federal Government, which holds the coin prerogative.

Sub-item 11.2 "Tangible and intangible fixed assets" amounted to €909 million compared with €938 million in 2011; it comprises land and buildings, furniture and equipment and computer software.

Sub-item 11.3 "Other financial assets" amounted to €12,125 million compared with €10,472 million in 2011. It contains fixed-interest euro assets of €12,036 million as a counterpart to the capital, statutory reserves, provisions for general risks and provisions for pensions and healthcare assistance. Euro assets are invested in covered bonds, mostly German Pfandbriefe, then held to maturity and valued at amortised cost. The balance sheet value of euro assets increased by €1,652 million in the

Tangible and intangible fixed assets

Table 18

€ million

Item	Purchase/ production costs 31.12.2011	Additions	Disposals	Accumulated depreciations	Book value 31.12.2012	Book value 31.12.2011	Depreciation in 2012
Land and buildings	2,368	15	– 27	– 1,611	745	798	– 58
Furniture and equipment	721	76	– 53	– 585	159	135	– 49
Computer software	126	5	– 0	– 126	5	5	– 6
Total	3,215	96	– 81	– 2,322	909	938	– 113

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reporting year as a result of euro securities being transferred from sub-item 7.2 “Other securities”, where they had been shown in 2011. This item also includes €89 million in participating interests held by the Bundesbank. The latter’s participating interest in the BIS, Basel, was unchanged at €50 million at the end of 2012; it holds 50,100 shares. As in the previous year, the balance sheet value of its participating interest in Liquiditäts-Konsortialbank GmbH, Frankfurt am Main, amounted to €38 million. This 30% interest continues to entail a maximum additional commitment of €300 million for the Bundesbank. Its participating interest in the cooperative society SWIFT, La Hulpe (Belgium), went up by €0.4 million to €1.1 million in the reporting year owing to the statutory redistribution of shares.

Sub-item 11.4 “Off-balance-sheet instruments revaluation differences” essentially comprises €46 million for the valuation of the US dollar forward liabilities to the ECB arising from the euro/US dollar swap agreement with the ECB (see asset item 3 “Claims on euro-area residents denominated in foreign currency”). In 2011, US dollar forward liabilities valued at market prices exceeded the corresponding euro forward claims, resulting in the latter being shown in liabilities sub-item 11.1 in the amount of €418 million.

Sub-item 11.5 “Accruals and prepaid expenses” contains the accrued and prepaid expenditure calculated as at 31 December 2012. This chiefly consists of interest income due in 2013 from securities, refinancing operations for credit institutions and the interest-bearing TARGET2 claim on the ECB which were acquired or transacted in 2012.

As of 31 December 2012, sub-item 11.6 “Sundry items” mainly contained, as in 2011, the nominal value of claims against one counterparty that defaulted from monetary policy operations undertaken by the Eurosystem.

2 Liabilities

1 Banknotes in circulation

The total value of euro banknotes issued by the central banks in the Eurosystem is distributed among these banks on the last business day of each month in accordance with the key for allocating euro banknotes (see General information on annual accounts). According to the banknote allocation key applying on 31 December 2012, the Bundesbank has a 24.9% share of the value of all euro banknotes in circulation. During the year under review, the total value of banknotes in circulation within the Eurosystem rose from €888,628 million to €912,592 million, or by 2.7%. According to the

allocation key, the Bundesbank had euro banknotes in circulation worth €227,231 million at the end of the year, compared with €221,264 million at the end of 2011. The value of the euro banknotes actually issued by the Bundesbank in 2012 increased by 9.1% from €391,753 million to €427,538 million. As this was more than the allocated amount, the difference of €200,308 million (2011: €170,489 million) is shown in liability sub-item 9.2 "Liabilities related to the allocation of euro banknotes within the Eurosystem (net)".

2 Liabilities to euro-area credit institutions related to monetary policy operations denominated in euro

Sub-item 2.1 "Current accounts" contains the deposits of credit institutions, amounting to €129,607 million (2011: €76,408 million), which are also used to meet the minimum reserve requirement and settle payments. The main criterion for including these deposits in this sub-item is that the respective business partners appear in the list of institutions which are subject to the Eurosystem's minimum reserve regulations. Minimum reserve balances are remunerated at the average interest rate for main refinancing operations in the maintenance period. On a daily average, the current account deposits went up from €52,537 million in 2011 to €105,286 million in 2012.

Sub-item 2.2 "Deposit facility", amounting to €40,470 million (2011: €66,069 million), contains overnight deposits at a predetermined interest rate (standing facility). On a daily average, the deposit facility amounted to €161,951 million, compared with €28,696 million in 2011.

Sub-item 2.3 "Fixed-term deposits" contains liquidity-absorbing fine-tuning operations of €129,885 million (2011: €86,395 million). In 2012, they were conducted as variable-rate tenders with a maximum bid rate to neutralise the liquidity-providing effects of the Securities Markets Programme. On a daily average, the fixed-term deposits amounted to €136,835 million (2011: €61,144 million).

4 Liabilities to other euro-area residents denominated in euro

Sub-item 4.1 "General government deposits" encompasses the balances of the Federal Government, its special funds, the state governments and other public depositors. The deposits of other public depositors constitute balances held by social security funds and local authorities. On 31 December 2012, general government deposits amounted to €11,870 million in all (2011: €745 million). This increase results, in particular, from higher deposits of the health insurance fund of the statutory health insurance scheme.

Sub-item 4.2 "Other liabilities" amounted to €28,059 million, compared with €4,756 million on 31 December 2011. It mainly comprises deposits of financial intermediaries and individuals. The increase is primarily due to a rise in deposits of the European Financial Stability Facility (EFSF) and the European Stability Mechanism (ESM).

5 Liabilities to non-euro-area residents denominated in euro

This balance sheet item, amounting to €83,284 million (2011: €46,552 million), contains the balances of central banks, monetary authorities, commercial banks and international organisations held to settle *inter alia* payments. These include fixed-term deposits of central banks accepted as part of the Bundesbank's central bank services which are then invested in the money market (see asset item 6 "Other claims on euro-area credit institutions denominated in euro").

6 Liabilities to euro-area residents denominated in foreign currency

This item contains US dollar deposits of banks domiciled in the euro area and of the Federal Government.

7 Liabilities to non-euro-area residents denominated in foreign currency

The foreign-currency-denominated liabilities to banks outside the euro area are recorded in this item. These are liabilities in US dollars, amounting to €76 million (2011: no holdings), which have arisen from securities repurchase agreements (repos).

8 Counterpart of special drawing rights allocated by the IMF

The counterpart of the special drawing rights allocated by the IMF free of charge corresponds to the allocations of SDRs to the Federal

Republic of Germany from 1970 to 1972, from 1979 to 1981 and in 2009, which together totalled SDR12,059 million (see assets sub-item 2.1 "Receivables from the IMF").

9 Intra-Eurosystem liabilities

The Bundesbank's liabilities to the ECB and to the other central banks participating in the Eurosystem are combined in this item.

Sub-item 9.1 contains "Liabilities related to the issuance of ECB debt certificates". The ECB did not issue any such paper during 2012.

Sub-item 9.2 "Liabilities related to the allocation of euro banknotes within the Eurosystem (net)" contains the liabilities arising from the application of the banknote allocation key (see liability item 1 "Banknotes in circulation"). At the end of the year, these liabilities amounted to €200,308 million (2011: €170,489 million).

The net liabilities arising from other assets and liabilities within the Eurosystem would be shown in sub-item 9.3 "Other liabilities within the Eurosystem (net)". At the end of 2012, the Bundesbank had a net claim, which is shown on the asset side under sub-item 9.4 "Other claims within the Eurosystem (net)" and outlined in the explanatory notes above.

10 Items in course of settlement

This item contains the liabilities items arising from payments still being processed within the Bundesbank.

11 Other liabilities

At the end of 2012, no holdings were reported under sub-item 11.1 (2011: €418 million). In the current financial year, these holdings are shown in assets sub-item 11.4.

Sub-item 11.2 "Accruals and income collected in advance" contains the accrued income calculated as at 31 December 2012. This consists mainly of interest expenditure which is due in 2013 but was incurred in 2012 and which arose in connection with the allocation of banknotes within the Eurosystem.

Sub-item 11.3 "Sundry items" mainly comprises the liabilities arising from the Deutsche Mark banknotes still in circulation. Although Deutsche Mark banknotes are no longer legal tender, the Bundesbank has publicly undertaken to redeem Deutsche Mark banknotes that are still in circulation for an indefinite period. The Deutsche Mark banknotes still in circulation belong to the series BBk I/Ia and BBk III/IIIa and at the end of 2012 totalled €3,216 million. The banknote series BBk I/Ia accounted for €1,241 million of this sum (2011: €1,251 million) and the banknote series BBk III/IIIa for €1,975 million (2011: €2,018 million). In 2004, part of the liabilities arising from Deutsche Mark BBk I/Ia series banknotes still in circulation and amounting to €1,237 million were taken off the books and reported as income as it is highly unlikely that this part of the banknote stock will now be exchanged for euro. As a result of this partial write-off, the liabilities arising from Deutsche Mark banknotes still in circulation on 31 December 2012 amounted to €1,979 million.

12 Provisions

The provisions for general risks are created pursuant to the regulations governing the Bundesbank's annual accounts contained in section 26 (2) of the Bundesbank Act *(Bundesbankgesetz).* They are established to hedge against general risks associated with domestic and foreign business. The level of funds to be allocated to risk provisions is reviewed annually using value-at-risk and expected shortfall calculations amongst others. In doing so, the holdings of risk-weighted assets, their risk content, the financial situation expected for the coming year and the statutory reserves (€2.5 billion) are taken into account. Taking the aforementioned factors into consideration, the risk provisions need to be expanded by a greater amount than in 2011. This expansion is, above all, attributable to the greater risks arising from monetary policy operations (for more detailed information, see section on Other activities under IV Management of financial risks). The counterparty credit risks of the Securities Markets Programme and of the refinancing operations,

Provisions

Table 19

Provisions for	31.12.2012 € million	31.12.2011 € million	Year-on-year change € million	 %
General risks	14,380	7,709	6,671	86.5
Monetary policy operations	91	279	– 188	– 67.3
Direct pension commitments	3,080	2,770	310	11.2
Indirect pension commitments (supplementary pension funds)	417	403	14	3.5
Healthcare subsidy commitments to civil servants	597	542	55	10.1
Partial retirement scheme	91	97	– 7	– 7.1
Staff restructuring schemes	194	208	– 14	– 6.7
Other	47	37	10	27.9
Total	18,898	12,046	6,852	56.9

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which are determined using a model, grew significantly owing to the higher degree of risk but also to the larger volume of refinancing operations of the Eurosystem. A period of three years up to the end of 2012 was envisaged for the risk provisions to be increased. According to the current valuation of the risks, the risk provisions were raised by €6,671 million on 31 December 2012 in the third stage (see the profit and loss sub-item 2.3 "Transfers to/from provisions for general risks, foreign exchange risks and price risks").

A provision for monetary policy operations has been built up since 2008 following a decision by the ECB Governing Council regarding concrete risks arising from the default of six Eurosystem counterparties. In accordance with Article 32.4 of the ESCB Statute, this provision is funded by all national central banks of participating member states in proportion to their subscribed capital key shares in the ECB applicable in the year in which the counterparty defaults. In accordance with the Eurosystem accounting principles and in consideration of the general principle of prudence, the Governing Council of the ECB reviewed the appropriateness of this provision and – in view of the successful realisation of the assets provided by the counterparties at the time – decided to reduce the total amount by €638 million from €949 million on 31 December 2011 to €310 million on 31 December 2012. The Bundesbank's share of this provision is €91 million (2011: €279 million). This resulted in income of €188 million for the Bundesbank in 2012 (see profit and loss item 5 "Net result arising from allocation of monetary income").

Provisions for direct pension commitments, for indirect pension commitments as a result of the Bundesbank's obligation to act as guarantor for pension payments out of the supplementary pension funds for public sector employees and for healthcare subsidy commitments to civil servants are valued on the basis of an actuarial expert opinion pursuant to the entry age normal method *(Teilwertverfahren),* with a discount rate of 4.9% used in the reporting year (2011: 5.0%). In the financial year 2012, it is estimated that there was a wage trend of 1.75%, a career trend of 0.5%, a pension trend of 1.75% for civil servants and of 1% for public sector employees as well as a cost trend of 2.25% for healthcare subsidy commitments. After the provisions of the Act to Modernise Accounting Law *(Bilanzrechtsmodernisierungsgesetz)* were implemented, provisions for pension and healthcare subsidy commitments amounted to €4,287 million as at 31 December 2012, in particular given future cost increases. €4,095 million of this sum is recorded

in the provisions as at 31 December 2012. The remaining amount of €190 million is to be allocated at the end of 2013. Provisions for the partial retirement scheme and for payment commitments arising from staff restructuring schemes that had already been carried out by the balance sheet date are calculated using a discount rate of 3.85% (2011: 3.93%) based on an actuarial expert opinion pursuant to the present value method *(Barwertverfahren);* as in 2011, a wage trend of 1.75% is taken into consideration. Expenses in the amount of €275 million from marking up the aforementioned staff provisions (including effects of changing the discount rate) are contained in profit and loss sub-item 1.2 "Interest expense"; transfers of €190 million due to changing over to the provisions of the Act to Modernise Accounting Law are booked to profit and loss item 11 "Other expenses". Other changes to provisions on balance result in usage-related relief of €91 million in profit and loss item 7 "Staff costs" and dissolution-related income of €15 million in profit and loss item 6 "Other income".

Other provisions have been created for remaining holiday entitlement, overtime and positive balances of flexible working hours as well as for uncertain liabilities.

13 Revaluation accounts

This item contains the disclosed hidden reserves from the initial valuation at the time of the changeover to market valuation on 1 January 1999 (revaluation items "old") and the unrealised profits arising from market valuation on 31 December 2012 (revaluation items "new").

Revaluation items "old"

A revaluation item "old" now remains only for the gold position. It represents the difference between the market value of gold on 1 January 1999 and the lower value of gold prior to that date. In the balance sheet on 31 December 1998, the value for gold was 1 ozf = DM143.8065 (€73.5271) while the market value on 1 January 1999 was 1 ozf = €246.368. Although the valuation gains arising from the initial valuation of the gold holdings are not eligible for distribution, they will be dissolved under certain circumstances. Besides a dissolution in the case of valuation losses on the gold item, a proportionate dissolution also takes place in the event of net reductions if the end-of-year gold holdings are below their lowest end-of-year level since 1999.

The reduction of 0.2 million ozf in gold holdings resulted in a dissolution amount of €27 million in the year under review. The dissolution amount is included in profit and loss sub-item

Revaluation accounts Table 20

Item	Revaluation items "old" € million	Revaluation items "new" € million	Total 31.12.2012 € million	Total 31.12.2011 € million	Year-on-year change € million	%
Gold	18,846	110,650	129,496	124,845	4,651	3.7
US dollars	–	2,303	2,303	3,023	– 721	– 23.8
SDRs	–	195	195	376	– 181	– 48.2
Yen	–	109	109	349	– 239	– 68.6
Securities	–	475	475	818	– 344	– 42.0
Total	18,846	113,731	132,577	129,411	3,166	2.4

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2.1 "Realised gains/losses arising from financial operations".

Revaluation items "new"

In the case of gold holdings, the net positions in each foreign currency and the securities portfolios, the positive difference between their market value on 31 December 2012 and their value in terms of the average acquisition cost carried forward from 1 January 1999 is shown in the revaluation items "new".

As regards gold, the acquisition cost is 1 ozf = €246.370. At the end of 2012, the market value of the gold position exceeded its acquisition value, leading to a revaluation item of €110,650 million (2011: €105,972 million). The market values of the US dollar, SDR and Japanese yen items at the end of 2012 were likewise above their acquisition value (€1 = US$1.4510, €1 = SDR0.8784 and €1 = ¥121.07), with the result that there were revaluation items. In the case of the Australian dollar position, the market value at year-end was below the respective acquisition value (€1 = A$1.2225), giving rise to a valuation loss (see profit and loss sub-item 2.2 "Write-downs on financial assets and positions").

The valuation gains from securities shown in the balance sheet result almost exclusively from US dollar investments. The euro securities are held to maturity and valued at amortised cost.

14 Capital and reserves

In accordance with section 2 of the Bundesbank Act, the liable capital amounts to €2.5 billion and is attributable to the Federal Government. The statutory reserves are in line with the fixed upper limit which is laid down in section 27 number 1 of the Bundesbank Act and which is likewise €2.5 billion.

15 Profit for the year

The profit and loss account for the year 2012 closed with an annual surplus of €664 million. Pursuant to section 27 of the Bundesbank Act, it will be transferred in full to the Federal Government as the statutory reserves were at their maximum level of €2.5 billion at the end of 2012.

VI Notes on the profit and loss account

1 Net interest income

This item shows interest income less interest expense. Net interest income was greater than in the previous year, rising by €3,489 million to €8,259 million. This was attributable in particular to the strong growth of Eurosystem-relevant balance sheet items. On the asset side, SMP securities holdings increased by 101%, the interest-bearing TARGET2 claim on the ECB by 84% and monetary policy refinancing operations by 37%; on the liabilities side, net liabilities arising from the allocation of banknotes rose by 11% and liabilities related to monetary policy operations by 184% on an annual average. The latter also leads to a significantly higher transfer of monetary income to the other national central banks in the Eurosystem (see profit and loss item 5 "Net result arising from allocation of monetary income").

1.1 Interest income

In 2012, interest income in foreign currency fell year on year by €76 million to €375 million. This was due to the lower annual average rate of interest on US dollar assets and the SDR position. Interest income in euro increased year on year by €2,521 million to €10,626 million. Income arising from the TARGET2 claim on the ECB rose by €1,273 million. This was due mainly to the increase in the TARGET2 claim by around €308 billion on an annual average, which more than offsets the lower average rate of interest (0.9% compared with 1.3% in the previous year). Income from securities (SMP portfolio, CBPP portfolios and financial assets) grew by €1,327 million, particularly owing to the increase in securities holdings under the Eurosystem's Securities Markets Programme (SMP) by €26 billion on an annual average.

Net interest income

Table 21

Item	2012	2011	Year-on-year change	
	€ million	€ million	€ million	%
Interest income in foreign currency				
IMF	24	76	– 53	– 68.9
Reverse repo transactions	7	4	4	95.0
Securities	295	364	– 69	– 18.8
Claims arising from the provision of foreign exchange liquidity	41	5	35	.
Other	8	2	6	284.9
Total	375	451	– 76	– 16.9
Interest income in euro				
Main refinancing operations	19	202	– 182	– 90.5
Longer-term refinancing operations	618	428	189	44.2
Other refinancing operations	2	1	1	42.3
TARGET2 claim on the ECB	5,981	4,708	1,273	27.0
Government bonds (SMP portfolio)	2,874	1,518	1,356	89.3
Covered bonds (CBPP and CBPP2 portfolio)	484	609	– 125	– 20.6
Claims arising from the transfer of foreign reserves to the ECB	83	117	– 34	– 29.3
Claims arising from central bank services	17	82	– 65	– 79.7
Financial assets (incl. other covered bonds)	483	386	97	25.0
Other	66	53	13	24.7
Total	10,626	8,105	2,521	31.1
Interest income	11,001	8,556	2,445	28.6
Interest expense in foreign currency				
IMF	15	54	– 39	– 72.0
Liabilities arising from the provision of foreign exchange liquidity	41	5	35	.
Other	0	0	0	.
Total	56	60	– 4	– 6.2
Interest expense in euro				
Minimum reserves	263	649	– 387	– 59.5
Deposit facility	305	151	154	102.3
Fixed-term deposits	210	505	– 295	– 58.4
Liabilities related to the allocation of euro banknotes	1,616	2,068	– 452	– 21.9
Liabilities arising from central bank services	10	76	– 65	– 86.4
Marking up of staff provisions	275	270	5	1.8
Other	8	7	1	10.1
Total	2,687	3,726	– 1,039	– 27.9
Interest expense	2,742	3,786	– 1,043	– 27.6
Grand total interest income	8 259	4 770	3 489	73.1

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Net result of financial operations, write-downs and risk provisions

Table 22

Item	2012 € million	2011 € million	Year-on-year change € million	Year-on-year change %
Realised gains/losses				
Gold	204	170	34	19.9
Foreign currency	299	145	154	106.3
Securities	329	302	27	8.8
Total	832	617	215	34.8
Write-downs				
Foreign currency	– 46	– 0	– 46	.
Securities	– 6	– 3	– 3	– 101.1
Total	– 52	– 3	– 49	.
Transfers to/from provisions for general risks, foreign exchange risks and price risks	– 6,671	– 4,141	– 2,530	– 61.1
Grand total	– 5,891	– 3,527	– 2,364	– 67

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1.2 Interest expense

Interest expenditure decreased by €1,043 million to €2,742 million year on year. In the case of the euro, there was a year-on-year decline of €1,039 million to €2,687 million. Owing to the lower average rate of interest over the year (0.9% compared with 1.3% in the previous year), the interest expenditure on the remuneration of intra-Eurosystem balances arising from the allocation of euro banknotes fell by €452 million despite the €18 billion rise in liabilities (see General information on annual accounts). Furthermore, interest expenditure on liabilities related to monetary policy operations (minimum reserves, deposit facility and fixed-term deposits) also declined by €527 million due to lower average interest rates (0.2% compared with 0.9% in the previous year) despite the increase in liabilities averaging around €262 billion over the year.

2 Net result of financial operations, write-downs and risk provisions

The net income shown in sub-item 2.1 “Realised gains/losses arising from financial operations” amounted to €832 million, compared with €617 million in 2011.

The write-downs in the sub-item 2.2 arise primarily from currency holdings in Australian dollar.

Sub-item 2.3 “Transfers to/from provisions for general risks, foreign exchange risks and price risks” contains the increase of €6,671 million in the provision for general risks (see liability item 12 “Provisions”).

3 Net income from fees and commissions

Net income from fees and commissions came to €42 million, compared with €48 million the previous year (see Table 23 on page 159).

4 Income from participating interests

This item contains the Bundesbank's income from its participating interests in the ECB, the BIS and Liquiditäts-Konsortialbank GmbH. The total income of €195 million (2011: €240 million) includes, in particular, the Bundesbank's share of the ECB's profit distribution for the financial years 2011 and 2012. The share of the ECB's interim distribution of profit for the 2012 financial year is €156 million; a further €21 million were due to the (remaining) profit distribution for the 2011 financial year, which took place in March 2012 (see General information on annual accounts).

5 Net result arising from allocation of monetary income

This item comprises expenditure of €689 million overall in 2012 compared with income of €323 million in 2011. Risk provisioning for Eurosystem monetary policy operations (see liability item 12 “Provisions”) resulted in net income of €188 million (2011: €370 million). Expenditure from the allocation of monetary income amounted on balance to €877 million, compared with €48 million in 2011.

Net income from fees and commissions — Table 23

Item	2012	2011	Year-on-year change	
	€ million	€ million	€ million	%
Income				
Cashless payments	25	25	− 0	− 0.7
Cash payments	12	15	− 3	− 19.5
Securities business and security deposit business	9	9	1	6.7
Other	17	18	− 1	− 7.6
Total	63	67	− 4	− 5.8
Expense				
Securities business and security deposit business	16	14	2	13.4
Other	5	4	1	20.7
Total	21	19	3	15.0
Grand total	42	48	− 7	− 13.9

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The monetary income of the Eurosystem national central banks is allocated in accordance with a decision taken by the Governing Council of the ECB.[6] Since 2003, the amount of monetary income allocated to each national central bank has been measured on the basis of the actual income which arises from the earmarked assets that each holds as a counterpart to its liability base.

The liability base contains, in particular, the following items: liability item 1 "Banknotes in circulation", liability item 2 "Liabilities to euro-area credit institutions related to monetary policy operations denominated in euro", liability sub-item 9.2 "Liabilities related to the allocation of euro banknotes within the Eurosystem (net)" and the TARGET2 net liability contained in liability sub-item 9.3 "Other liabilities within the Eurosystem (net)". All interest expense which a national central bank has paid on the aforementioned liability base items reduces the amount of the monetary income to be transferred by the national central bank concerned.

A national central bank's earmarked assets consist of the following items: asset item 5 "Lending to euro-area credit institutions related to monetary policy operations denominated in euro", asset sub-item 7.1 "Securities held for monetary policy purposes", asset sub-item 9.2 "Claims arising from the transfer of foreign reserves to the ECB", asset sub-item 9.3 "Claims related to the allocation of euro banknotes within the Eurosystem (net)", the net asset arising from TARGET2 accounts contained in asset sub-item 9.4 "Other claims within the Eurosystem (net)" and a limited amount of the national central banks' gold holdings corresponding to their share in the fully paid-up capital of the ECB. Gold is considered to generate no income, and securities purchased as part of both the CBPP and the CBPP2 generate income according to the respective interest rate for the main refinancing instrument.

If the value of a national central bank's earmarked assets is above or below the value of its liability base, the difference is offset by applying to the value of the difference the applicable interest rate for the main refinancing instrument. At the end of each financial year, the total monetary income transferred by all national central banks is distributed among the national central banks in proportion to their respective shares in the fully paid-up capital of the ECB.

6 Decision of the European Central Bank of 25 November 2010 on the allocation of monetary income of the national central banks of member states whose currency is the euro (ECB/2010/23), as amended by the Decision of the European Central Bank of 3 November 2011 (ECB/2011/18).

The allocation of monetary income resulted in a net expense of €877 million for the Bundesbank. This net expense represents the difference between the €7,237 million in monetary income paid by the Bundesbank into the common pool and the Bundesbank's claim of €6,360 million – corresponding to the Bundesbank's share of the ECB's paid-up capital – on the common pool.

The increase in expenses in 2012 is the result primarily of the significant expansion in the SMP portfolio on an annual average and of the balance sheet counterpart, ie the fixed-term deposits from the SMP liquidity-absorbing tenders. The net interest income arising from these two balance sheet items is recognised at year-end in the allocation of monetary income amongst the national central banks in line with the capital key. As neither the SMP holdings nor the fixed-term deposits are allocated to the financial accounts of the national central banks in line with the capital key, reallocation effects arise. For central banks with a disproportionately high share in (in comparison to the interest rate for the main funding instrument, higher-yielding) SMP holdings and/or (lower-yielding) fixed-term deposits there is a higher net interest income and, in connection with this, a higher transfer of monetary income. In the case of the Bundesbank, the reallocation effect arises from the high 64.5% share (on an annual average) in the fixed-term deposits of the Eurosystem compared with a share of 27.1% in the fully paid-up capital of the ECB.

6 Other income

Other income amounted to €185 million compared with €96 million in 2011. In the 2012 financial year, €51 million was collected from the quota share distributed to Germany from the IMF's windfall gold sales profits (this amount was retransferred from the Federal budget to the IMF for loans to developing countries). A further €26 million was attributable to rental income, €25 million to the reimbursement of costs by the central banks of the ESCB, in particular for the development and operation of TARGET2, and €17 million to the release of provisions, in particular in the area of Human resources (see liability item 12 "Provisions").

7 Staff costs

Staff costs rose from €614 million to €706 million year on year. Expenditure for transfers to staff provisions (see liability item 12 "Provisions") in particular rose by €69 million net on the year; of this, €58 million was for retirement pensions and €11 million for salaries and wages. This mainly reflected the pay rises of wage and salaried staff and of civil servants. The number of staff was virtually unchanged on the year.

Staff costs — Table 24

Item	2012	2011	Year-on-year change	
	€ million	€ million	€ million	%
Salaries and wages	515	493	22	4.6
Social security contributions	84	81	3	3.3
Expenditure on retirement pensions	107	41	67	164.1
Grand total	706	614	92	14.9

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The remuneration received by each member of the Executive Board is published in the *Annual Report* in accordance with item 8 of the "Code of Conduct for the members of the Executive Board of the Deutsche Bundesbank". For the year 2012, the President of the Bundesbank received a pensionable salary of €328,937.54, a special non-pensionable remuneration of €76,693.78 and a standard expenses allowance of €5,112.96, amounting to a total of €410,744.28. The Deputy President of the Bundesbank received a pensionable salary of €263,150.02, a special non-pensionable remuneration of €61,355.03 and a standard expenses allowance of €3,067.80, amounting to a total of €327,572.85 for 2012. The Executive Board member who left office on 15 July 2012 and was reappointed with effect from 23 July 2012 received a pensionable salary of €193,628.91, a special non-pensionable remuneration of €45,121.51 and a standard expenses allowance of €2,508.37, amounting to a total of €241,258.79. For 2012, the other three members of the Executive Board each received a pensionable salary of €197,362.60, a special non-pensionable remuneration of €46,016.27 and a standard expenses allowance of €2,556.48, amounting to a total of €245,935.35.

Total payments to serving and former members of the Executive Board, former members of the Bundesbank's Directorate and of the Executive Boards of Land Central Banks, including their surviving dependants, amounted to €11,725,543.44 in 2012.

8 Other administrative expenses

The other (non-staff) operating expenditure increased year on year by €18 million (5.8%) to €324 million. This item shows not only operating expenditure but also, in particular, expenditure on buildings (€85 million) and computer hardware and software (€83 million). Most of the increase in other administrative costs is due to IT or construction projects.

9 Depreciation on tangible and intangible fixed assets

The depreciation of land and buildings, of furniture and equipment and of computer software amounted to €113 million, compared with €107 million in 2011 (see asset sub-item 11.2 "Tangible and intangible fixed assets").

10 Banknote printing

Expenditure on banknote printing increased year on year by €20 million (28.6%) to €91 million due to a higher procurement volume.

11 Other expenses

Other expenses amounted to €203 million, compared with €209 million in 2011, and contained in particular the transfers to staff provisions due to the transition to the provisions of the Accounting Law Modernisation Act (see liability item 12 "Provisions") totalling €190 million and expenditure on residential buildings of €11 million.

The Deutsche Bundesbank: key figures

Staff[1]	2011	2012
Core staff (full-time equivalents)	9,560	9,543
– contraction since 31 December 2001[2]	5,240 (= 35.4%)	5,257 (= 35.5%)

Locations/core staff (full-time equivalents)[1]	2011	2012
Central Office	1 / 3,801	1 / 4,025
Regional Offices	9 / 2,558	9 / 2,624
Branches	47 / 3,201	47 / 2,894

Annual accounts[1]		2011	2012
Profit for the year		€643 million	€664 million
Net interest income		€4,770 million	€8,259 million
Balance sheet total		€837,643 million	€1,025,306 million
Foreign reserve assets (total)		€184.6 billion	€188.6 billion
– foreign currency		€29.4 billion	€28.8 billion
– receivables from the IMF		€22.3 billion	€22.3 billion
– gold		(3,396 t) €132.9 billion	(3,391 t) €137.5 billion
Allocation across the various storage locations			
	Frankfurt	(1,036 t) €40.5 billion	(1,036 t) €42.0 billion
	New York	(1,536 t) €60.1 billion	(1,536 t) €62.3 billion
	London	(450 t) €17.6 billion	(445 t) €18.0 billion
	Paris	(374 t) €14.6 billion	(374 t) €15.2 billion

ECB capital key[3]	2012
Share of subscribed capital	18.9373%
Share of paid-up capital	27.0647%
Amount of the participating interest in the ECB[4]	€2.04 billion
Foreign reserve assets transferred to the ECB	€10.91 billion

Money market transactions (main refinancing operations)	2011	2012
Banks participating in the Eurosystem (average)	192	95
– *of which* using the Bundesbank as an intermediary	69	11
Amount outstanding for main refinancing operations in the Eurosystem[5]	€160 billion	€98 billion
– *of which* counterparties of the Bundesbank	€17 billion	€2 billion

Cash payments	2011	2012
Volume of euro banknotes in circulation (Eurosystem)[1]	€888.6 billion	€912.6 billion
Volume of euro coins in circulation (Eurosystem)[1]	€23.1 billion	€23.7 billion
Value of DM/euro exchange transactions	DM109.5 million	DM97.5 million
Unreturned DM banknotes and coins	DM13.30 billion	DM13.16 billion

Incidence of counterfeit money in Germany	2011	2012
Euro banknotes (number)	39,000	41,500
Euro coins (number)	52,700	52,000

1 On 31 December. **2** Core staff (full-time equivalents) on 31 December 2001 (year before the structural reform began): 14,800. **3** Since 1 January 2011. **4** Since 27 December 2012. **5** Daily average.

Cashless payments	2011	2012
Payments via the Bundesbank (number of transactions)	2,738.8 million	2,866.4 million
– of which via RPS	2,690.1 million	2,817.1 million
– of which via TARGET2-BBk	44.4 million	45.0 million
Payments via the Bundesbank (value)	€215.4 trillion	€200.7 trillion
– of which via RPS	€2.4 trillion	€2.5 trillion
– of which via TARGET2-BBk	€209.9 trillion	€195.6 trillion
Share of TARGET2-BBk transactions in EU-wide TARGET2 system	~ 50%	~ 50%

Banking supervision	2011	2012
Number of institutions to be supervised	3,558	3,582
Audits of banking operations	225	212
Monthly returns processed and additional information pursuant to section 25 of the German Banking Act	30,023	29,457
Audit reports processed	5,707	5,723
Reports on Own Funds Principle (Solvency Regulation)	[6] 8,388	8,156
Reports on Liquidity Principle (Liquidity Regulation)	24,964	24,468
Meetings with senior management	2,738	2,977

Cooperation with foreign central banks	2011	2012
Training and advisory events	306	308
– number of participants (total)	3,494	3,764
– number of participating countries (total)	110	87

Selected economic publications (editions/circulation)	2011	2012
Annual Report	1 / 16,000	1 / 16,000
Financial Stability Review	1 / 15,700	1 / 9,500
Monthly Report	12 / 13,000	12 / 8,600
Statistical Supplements	52 / 2,600	52 / 1,500
Research Centre Discussion Papers	53 / 398	36 / 300
Publications in academic journals/books	57 / 4	47 / –

External communication/public relations	2011	2012
Visitors to the Money Museum	40,110	37,914
Written answers to queries	19,706	16,061
Press releases	340	341
Visits to the website (www.bundesbank.de)	7,422,338	[7] 4,716,951
Training sessions on counterfeit prevention	1,700	2,200
– number of participants	35,000	44,000

6 Since 2009, quarterly reports only. **7** During the relaunch of the Bundesbank's website in May 2012, a new system was introduced for the statistical calculation of visits.

Branches of the Deutsche Bundesbank on 1 April 2013

Locality number	Bank location	Locality number	Bank location
720	Augsburg	660	Karlsruhe
773	Bayreuth[1]	210	Kiel[1]
100	Berlin	860	Leipzig
480	Bielefeld	545	Ludwigshafen
430	Bochum	230	Lübeck[2]
290	Bremen[1]	810	Magdeburg
870	Chemnitz	550	Mainz
570	Coblenz	700	Munich
370	Cologne	150	Neubrandenburg
440	Dortmund	760	Nuremberg
850	Dresden[2]	280	Oldenburg
300	Düsseldorf	265	Osnabrück
820	Erfurt	750	Regensburg
360	Essen	640	Reutlingen
500	Frankfurt/M	130	Rostock
680	Freiburg	590	Saarbrücken
513	Giessen[2]	600	Stuttgart
260	Göttingen	630	Ulm
450	Hagen	694	Villingen-Schwenningen
200	Hamburg	790	Würzburg
250	Hanover		

1 Closure date 30 September 2015. **2** Closure date 31 March 2015.