The economic scene in Germany in summer 2000

The international and European setting

Developments in the world economy

World economy remains on a path of expansion

In the first half of 2000, the world economy was characterised by great dynamism. Continued economic recovery in the east Asian emerging economies, the distinct improvement in the Latin American economic situation, and exceptionally favourable developments in the central and east European economies have all made an important contribution to this expansion. In addition, the industrialised countries were able to record relatively strong growth. The US economy, which can now pride itself on having the longest-running economic upswing in a century, has until recently grown extremely vigorously. However, private final demand, which is at the heart of cyclical trends, did lose steam in spring of this year; hence a "soft landing" is still expected. The outlook for growth and employment in western Europe brightened further in the first half of 2000, becoming more optimistic than at any time since the end of the eighties. In Japan, there are more and more signs of a cyclical recovery, but the economic situation remains difficult.

Increased price risks

The further the worldwide expansion progresses, however, the more cyclical risks to price stability will tend to increase. Yet it is difficult to assess how much significance should be attached to those dangers at the current juncture. Some point out that the increased use of information and communications technology (ICT) accelerates productivity growth, sustainably boosts the expansion of an economy's production capacity and increases the latitude for tension-free output growth. The US economy seems to have been under such a positive influence on productivity gains since the mid-nineties. This increase in productivity, often attributed to the "new economy", has probably helped the United States achieve very strong growth – also in comparison to western Europe – while keeping inflation at a moderate level for a long time. However, favourable special factors have also played a role. In the other industrialised countries, the increasing use of ICT – according to OECD studies, for instance – has up to now, for the most part, not been reflected in any significant tangible strengthening of macroeconomic productivity growth. That could be because use of the new technologies there is (still) relatively minor. However, the discrepancy between the United States and most other industrial countries appearing in the official statistics also is partly due to methodological differences, especially in recording the manufacture of ICT goods and their use. Therefore, the "technology gap" and the growth divide between the United States and Germany are probably not as large as a comparison of official statistics would indicate (for more information see explanations on page 8).

Impact of higher oil prices

The drastic increase in oil prices has had a negative impact on the global price climate. In addition, the change in the terms of trade accompanying the higher oil prices has resulted in a considerable transfer of income from oil-consuming countries to oil-exporting nations. The dampening effects of the increase in the price of energy imports on industrial countries' economic growth, however, are distinctly less significant than in the mid-seventies and early eighties, since those countries' dependence on oil, measured in terms of gross domestic product (GDP), has declined considerably since then, and the conditions for price stability are more favourable. In a global perspective, the decline in purchasing power of the oil-importing countries went hand in hand with real income gains of the oil-producing countries, which contributed in great measure to a stabilisation of the economic situation, particularly in Russia and in some Latin American countries.

The risks entailed by the sharp rise in oil price quotations tend to be on the price side right now, especially if they give cause for further price and cost increases in the oil-consuming countries. It is true that there have hardly been any signs of this in the industrial countries so far; however, the longer the price pressure from that side persists, the greater the danger of such second-round effects occurring and of (home-made) core inflation undergoing a sustained increase. This risk is particularly present in countries where capacity utilisation is already high, and the number of these countries is likely to balloon due to the increasingly parallel movement of worldwide business cycles. The central banks in North America and western Europe therefore countered the increased price risks early on by raising interest rates. Thus, monetary policy is also contributing to the stabilisation of overall economic development. This will be all the more successful the more support it gets from fiscal policy.

Further weak points

Alongside price risks, a close eye should be kept on growing discrepancies in the cross-border trade in goods and services, with the

Problems of international comparisons of growth caused by dissimilar methods of deflation – with IT equipment in Germany and the United States as a case in point

An important feature of the "new economy" in the United States has been the major surge in macroeconomic productivity since the mid-nineties, which has also contributed to correspondingly stronger, tension-free economic growth. By contrast, most of the other industrialised countries did not report a similar "productivity boom" in the last few years. This discrepancy is largely attributed to the relatively sizeable share of the manufacture of information and communications technology goods and their greater use in the various sectors of the US economy.

The figures from the national accounts seem to put Germany, too, far behind the United States in the manufacture and the use of new technologies, particularly information processing. If we use as an example investment in IT equipment (excluding purchased and self-produced software) as an indicator of the use of new technologies, for which both countries have official and relatively comparable information, from 1992 to 1999 real expenditure on IT hardware and equipment in the United States (private sector) rose by an average of around 40 % per year. [1] By contrast, official statistics put their increase in Germany at only 6 %. [2]

The discrepancy between the two countries in developments in real IT equipment, however, is overstated due to different methods of measuring the prices of these goods. [3] In the United States, for quite some time now the so-called "hedonic" approach has been used to calculate price indices for IT goods (and for other selected goods), particularly in order to take quality changes into account, which is indispensable for reliable price measurement. [4] By contrast, Germany uses more conventional methods of evaluating quality changes. They often amount to estimating the monetary value of the quality change on a case-by-case basis according to rules laid down by the Federal Statistical Office. [5] There is ample reason to believe that conventional approaches reach their limits once extremely large quality changes occur which are reflected either not at all or only in part in corresponding price increases or decreases. In the area of IT goods, a particular hallmark of which has for a long time been rapid and comprehensive technological progress, they probably tend to lead to quality change, and thus the real price reduction, being understated. The hedonic price measurement approach, which is based on econometric methods and raises methodological problems of its own, rests on the basic assumption that different varieties of a heterogeneous good can be represented as different combinations of individual and distinctly defined product characteristics. In competitive markets, price differences at a given time can be explained by deviations in the characteristics of the different "models" of a good. Thus, hedonic price equations for computers usually contain elements such as the clock rate, RAM and hard disk memory as "explanatory variables".

To approximate the effects of the differences in deflation of IT goods between the United States and Germany, we begin by calculating the implicit deflators of IT equipment. The result is that according to US statistics, between 1991 and 1999 prices for computers and peripherals went down by four-fifths, after adjustment for quality variations, whereas according to German price statistics the decline was "only" one-fifth. In a second step, the nominal expenditure on IT equipment in Germany is adjusted with the corresponding US price deflator. This approach, which is theoretically founded on the "law of one price" for tradable goods, implies that the deviations in price trends between the United States and Germany are solely attributable to the aforementioned methodological differences. In 1998 IT investment in Germany, after adjustment with the US price deflator, was, at an estimated DM 64 billion, more than twice as high as real investment according to official statistics. In 1999 the discrepancy was even well over 170 %. In the years since 1991, on the basis of US prices, real expenditure on IT equipment in Germany rose by an annual average of 27 ½ %, compared with 6 % according to the conventional approach.

Adjusting real expenditure on IT equipment in Germany in these dimensions would amount to, in mathematical terms, investment in machinery and equipment making a larger contribution to GDP growth and thus also, when seen in isolation, stronger economic growth. The actual size of the "growth effect" of a hedonic price measurement of IT goods in Germany, however, can be estimated only by performing comprehensive calculations which would also have to take into account the IT goods contained in other demand components.

1 To improve comparability, the information published by the Federal Statistical Office on investment in "office machinery and computers" was adjusted for the (estimated) investment in office machinery. — **2** Information for 1999 is estimated since no such official data for Germany are available yet. — **3** See also: OECD Economic Outlook, No. 67, June 2000, page 182. — **4** The west European countries that also use hedonic price indices to deflate the prices of IT products are France, Sweden and Denmark. See: Scarpetta, S. et al, Economic Growth in the OECD Area: Recent Trends at the Aggregate and Sectoral Level, OECD Economics Department Working Papers, No. 248, June 2000, page 92. — **5** For more details see: Szenzenstein, J., *Die Behandlung von Qualitätsänderungen im Preisindex für die Lebenshaltung,* in: Deutsche Bundesbank (ed.), *Zur Diskussion über den Verbraucherindex als Inflationsindikator,* Frankfurt, 1999, page 41 ff. (available only in German).

Deutsche Bundesbank

persistently growing US current-account deficit deserving centre stage. In addition, there continue to be weak points in some emerging economies and in Japan, having their origins in the not-yet sufficiently stabilised financial situation in the banking and corporate sector and in an excessively large government debt, respectively. All the same, the world economic upswing rests on a more solid foundation than a year ago.

United States

In the United States, macroeconomic output, according to initial calculations and after adjustment for seasonal and working-day variations, rose by around 1¼ % in the second quarter, or as much as in the first quarter of the year. The year-on-year rise was 6 %. At first glance this does not fit in with the generally expected scenario of a "soft landing", i.e. a distinct slow-down of growth over the course of this year. However, a closer look at the individual demand components shows that private consumption, for a long time a pillar of the economic upswing in the United States, recently moved into calmer waters. After adjustment for price and seasonal variations, it rose by "only" ¾ % in spring (following a rise of 1½ % to 2 % in the two preceding periods). In the spring months purchases of durable consumer goods (a private consumption component), around four-tenths of which (in terms of volume) are accounted for by automobiles and auto parts, were even lower than at the beginning of the year, which is probably closely related to higher interest rates on consumer loans and receding wealth effects. If one factors in gross fixed capital formation, the growth of which, at a seasonally adjusted 3½ %, was not quite as strong as in the previous quarter, then private final demand seems to have swung onto a flatter path of growth in spring. However, this contrasted with a steep rise in government spending and comprehensive stockbuilding. The sharp rise in new orders for durable goods in June does not diminish the basic validity of the fact that the underlying momentum of the US economy has diminished somewhat of late, since large orders to the aircraft industry were the main factor behind that rise. Exporters were able to visibly expand their deliveries abroad, yet imports went up even more sharply. Consequently, the deficit in cross-border trade in goods and services reached a new high, amounting to 4½ % of GDP in spring.

Consumer price inflation picked up noticeably, its year-on-year increase going up from 3.0 % in April to 3.5 % in July. This is largely due to the renewed oil price surge. Core inflation, i.e. excluding energy and food prices, has likewise gone up since the beginning of the year. The annual growth rate rose from 1.9 % in January to 2.4 % in July.

Japan

No clear upward trend is discernible so far in Japan, yet the economy seems to have overcome its cyclical trough. Between April and June industrial production surpassed the first-quarter result by a seasonally adjusted 1½ % and was 6¾ % higher than in the corresponding period a year ago. One motor of the economic revival is sharply growing foreign demand, especially for electronics goods and motor vehicles. Another is that the concomitant higher utilisation of production capacity in conjunction with the further improvement in profitability has increased the propensity of Japanese enterprises to invest. By contrast, private consumption tended to remain weak, not least because once again there was a net loss of jobs, with wages and salaries per employee practically stagnant.

The sluggish consumer demand was a major reason consumer prices – despite the drastic rise in oil prices – were down 0.7% in the period from April to July from their level a year before. The chances are good that, on account of the cyclical recovery, the employment situation, and with it consumption, will undergo a sustained improvement. Until that time, though, the Japanese economy will remain vulnerable as long as its main pillar, exports, are heavily biased towards the United States; they would be affected considerably if there were a relatively sharp downturn in this, Japan's most important purchasing country. In addition, it should be pointed out that the Japanese government has so far not reoriented its policy towards budget consolidation, which will be necessary sooner or later.

United Kingdom

In spring, real GDP in the United Kingdom picked up, according to initial estimates, by 1% over the previous quarter, after adjustment for seasonal and working-day variations; this made it 3% higher than in the same period of the previous year. Since spring 1992, when the economy began to recover, macroeconomic output has gone up by one-quarter, i.e. by an annual rate of 3%. Compared with the winter half-year, the rate of growth accelerated again of late. The main reason is that industrial output, which in seasonally adjusted terms had stagnated in autumn 1999 and dropped visibly at the beginning of 2000, has picked up distinctly. The boom in global demand for ICT products gave output a "shot in the arm". The private services sector, long the pillar supporting the upswing in the United Kingdom, contributed a great deal to macroeconomic growth. In June the unemployment rate fell to a seasonally adjusted 3.8% (or 5½% in the standardised definition), its lowest rate in 25 years. All the same, the price climate has not yet been affected by any tensions in the goods and factor markets. Consumer prices including food and energy, but excluding mortgage rates, were up in July by 2.2% over their previous year's level. The core inflation rate calculated by Eurostat even showed a slight decline in prices in the spring as against the previous year's levels.

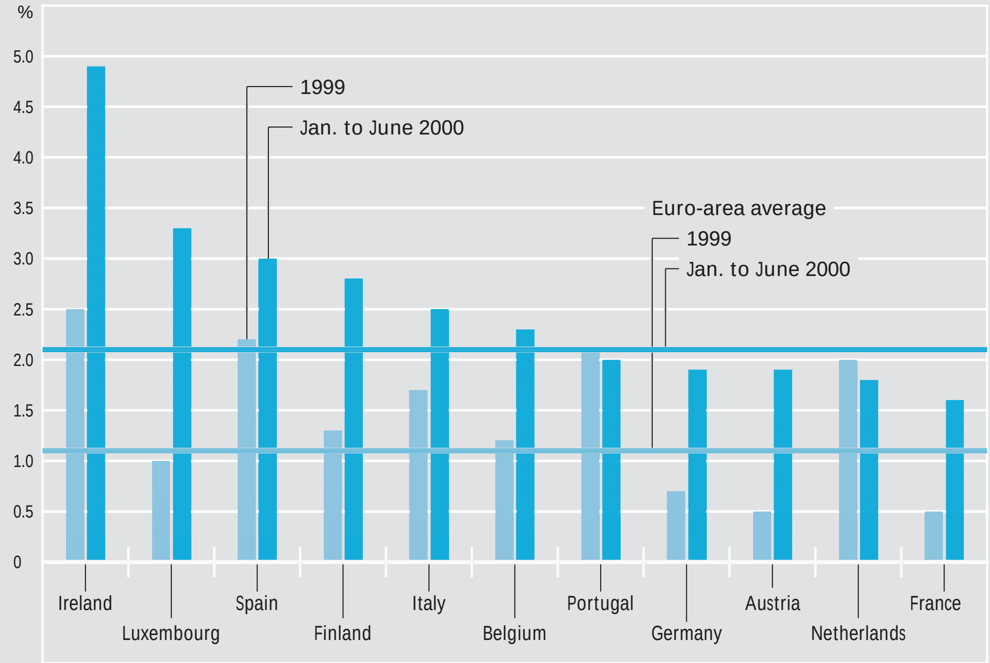
Macroeconomic trends in the euro area

Robust growth in the first quarter

Owing to favourable international trends, business activity in the euro area has picked up considerably of late. In the first quarter the cyclical recovery continued at an unabated pace. As in the previous two quarters, macroeconomic output increased by roughly 1% in seasonally adjusted terms (the first estimate of GDP growth in mid-June had still indicated a marked slowdown). At 3½%, the twelve-month growth rate is the highest rate measured since the upswing at the beginning of the nineties. Again, a strong boost was given by export activity, which went hand in hand with high increases in imports, however. Fixed capital formation and private consump-

Consumer prices in the euro area

Change in the Harmonised Indices of Consumer Prices from the previous year in %



Deutsche Bundesbank

tion both contributed one-half percentage point to GDP growth, which shows that the upswing in the euro area has now become broadly based.

Particularly strong economic growth in spring

In the second quarter, for which data on GDP growth are not yet available, economic growth appears to have accelerated even more. In April-May industrial production was a seasonally adjusted 2 % up on the previous quarter and 6¾ % up on the year. In June-July the industrial confidence indicator exceeded for the first time its peak reached during the 1987–91 upswing. Capacity utilisation in industry likewise experienced a further – albeit only slight – increase this spring. These developments are also in line with the survey results of March-April 2000, which indicate that the manufacturing sector of the euro area has revised its investment plans sharply upwards compared with the survey results of autumn 1999. Consumer confidence has remained very high of late. The sustained economic growth in the euro area also was a decisive factor in the further improvement of the labour market situation. The standardised unemployment rate dropped from a seasonally adjusted 9.4 % in March to 9.1% in June. A year ago it was as high as 9.9 %. Recently, in five of the eleven euro-area countries less than 5 % of the labour force was registered as unemployed. Only two countries (Spain and Italy) continued to record double-digit unemployment figures.

Price developments heavily influenced by oil prices

Towards the middle of the year consumer price inflation rose even further. Measured in terms of the year-on-year increase in the

Harmonised Index of Consumer Prices, overall inflation stood at 2.4 % in June, clearly outpacing the price increases registered in the previous five months, which had sometimes been below 2 %. In seven out of eleven countries, the inflation rates in the first half of this year exceeded the euro area's reference value for price stability. The accelerated price increases were mainly due to the renewed drastic rise in energy prices. Despite repeated announcements of a production expansion by the OPEC countries, the world market prices for crude oil, petroleum and other fuels only moderated temporarily. By contrast, increases in the prices of other goods and services were rather subdued. Core inflation, i. e. excluding energy and food prices, did not exceed 1.3 % in June, either. Price increases were kept at bay in particular by manufactured goods (excluding energy) which were only ½ % more expensive around the middle of the year than a year ago. In addition, consumer prices for food only rose at a below-average rate. The prices for services went up by around 1¾ % compared with twelve months earlier.

Current account and exchange-rate developments in the euro area

Exports to non-euro-area countries

The favourable world economic environment continued to fuel the export activities of the euro-area countries. Over the last two months (April-May) for which euro-area external trade data are available, the value of euro-area exports to third countries exceeded its previous year's level by no less than 25½ %. Export growth was on a similar scale when measured in real terms, i. e. at constant prices, since the price increases that occurred over the last year were relatively low on the exports side.

Imports

By contrast, import prices are estimated to have risen by more than 20 %, which is mainly attributable to the much more expensive crude oil imports but also to the low euro exchange rate. Therefore, at a growth rate of 31½ %, imports far outpaced exports in terms of value. Owing to this marked shift in the terms of trade and in spite of strong export activity, the trade surplus of the euro area in the two months under review went down from last year's level of almost € 14 billion to € 11 billion.

Current account

As regards the net "invisible" current-account transactions of the euro area with third countries, outflows likewise increased more than inflows. On balance, in April–May the euro-area countries ran a deficit of just over € 14 ½ billion on the services balance, the income account and the current transfers balance, taken together, compared with € 10 ½ billion a year ago. Therefore, the current account of the euro area recorded a deficit of almost € 4 billion in the period under review, after having shown a surplus of just over € 3 billion last year.

Exchange-rate developments

In the period under review the euro strengthened only temporarily. After the exchange rates against the major global currencies hit their all-time low at the beginning of May, the subsequent trend up to early June was characterised by a clear recovery. However, this appreciation was not of a lasting nature.

US dollar

The decisive factor in the temporary rally of the euro in the foreign exchange markets was increasing evidence that euro-area growth was distinctly picking up in the early summer, whereas economic activity in the United States appeared to slacken markedly. Consequently, the euro strengthened vis-à-vis the US dollar from the low level of US$ 0.89 at the beginning of May to US$ 0.97 in early June. However, it subsequently tended to be somewhat weaker again. After data on the surprisingly high rate of GDP growth in the US became available, the euro distinctly lost ground at the end of July. Of late, it was quoted at US$ 0.91 and thus close to its nadir of May. Compared to the euro's exchange rate at its introduction in January 1999, this represents a depreciation of 23 %.

Yen and ...

Against the Japanese yen, too, the euro recovered only temporarily from its low level in mid-May. However, the brief appreciation vis-à-vis the yen was slightly lower than against the US dollar. In the last few months the yen's exchange rate was mainly influenced by the ever-changing assessment of the Japanese central bank's "zero interest rate policy", which was ultimately abandoned. While the growth prospects for the Japanese economy as a whole gradually seemed to brighten, problems of individual enterprises raised doubts as to the sustainability of this development. Of late, the euro was quoted at ¥ 98.45, i.e. only just under 3 % above the record low of mid-May and 26½ % lower than in early 1999.

... pound sterling

By contrast, the euro's appreciation against the pound sterling was of a slightly more lasting nature. By mid-June the euro had risen by 12 % compared with its low level at the beginning of May, thus returning to its exchange rate of November 1999. This development reflects the fact that the inflation risks for the British economy were perceived to be lower than previously expected, which led to an adjustment of interest-rate expectations. However, here too, the euro was unable to maintain this exchange rate vis-à-vis the

Exchange rate of the euro

1 According to ECB calculations made using the weighted averages of the euro exchange rates against the currencies of 13 countries (1st qtr 1999 = 100).

Deutsche Bundesbank

pound sterling and lost some ground again. Of late, it was quoted at £ 0.61, i. e. still 6 % above its all-time low and almost 15 % beneath its level at the start of Stage Three of EMU in January 1999.

Effective exchange rate of the euro

On balance, when measured as a weighted average against the currencies of the 13 most important trading partners of the euro area, the euro has appreciated by some 2½ % since its nadir of early May. However, compared with its level at the start of monetary union at the beginning of last year, the total depreciation still amounts to just over 18 %. The asymmetric response of the euro's exchange rate to macroeconomic trends, which has become apparent some time ago, still seems to affect the market despite the temporary consolidation of quotations. Thus, the successful passage of the German tax reform, for instance, hardly had any impact on exchange-rate movements, while, as mentioned above, the US data on the surprisingly high GDP growth during the second quarter which were published at the end of July resulted relatively quickly in a corresponding weakening of the euro's exchange rate. From a monetary policy perspective it is crucial to continue to foster the inherent strength of the euro. The other policy areas need to commit themselves to continue their current path of growth-enhancing structural reforms, so that the appreciation potential will become clearly noticeable.

Monetary policy and the financial markets in the euro area

Central bank interest rates raised in June

In June the Governing Council of the ECB once again tightened its monetary policy. With effect from June 9 it raised the interest rates on the marginal lending facility and the deposit facility by one-half percentage point each to 5.25 % and 3.25 %, respectively. In addition, with effect from June 15, the Governing Council raised the interest rate on its main refinancing operations, which at that time were still conducted as fixed-rate tenders, from 3.75 % to 4.25 %. Thus, all the key interest rates in the euro-area money market stood 1¾ percentage points above their all-time low of last autumn. This fourth interest rate increase during the year in progress was designed to counteract the upside risks to price stability which continued to rise in the spring. Growth of the monetary aggregate M3, which exceeded the reference value, and mounting price pressure in the leading indicators, especially import prices, pointed to increasing risks.

Successful transition to variable-rate tender

Moreover, the Governing Council of the ECB decided that, starting with the last operation to be settled in June, it would conduct its main refinancing operations as variable-rate tenders using the multiple-rate auction technique until further notice. A minimum bid rate of 4.25 %, the level previously applied to fixed-rate tenders, was set. The minimum bid rate assumed the monetary policy signalling function hitherto performed by the fixed rate in the old tender procedure. The switch to the variable-rate tender did not constitute a further change in the monetary policy stance but was instead a reaction to the severe overbidding that had previously occurred under the fixed-rate procedure. The bid volume actually did fall drastically, dropping to around twice or three times the amounts allotted; by contrast, bids had surpassed more than one hundred times the allotted amounts in the latest fixed-rate tenders. In interest-rate-policy terms, too, the switch to the variable-rate tender went smoothly. The marginal allotment rates initially were in a tight and rather stable corridor which was limited to around five basis points above the minimum bid rate. In mid-August this margin increased somewhat. The overnight interest rate (EONIA), having moved away from the fixed-rate tender rate in the spring, remained close to the marginal refinancing rate.

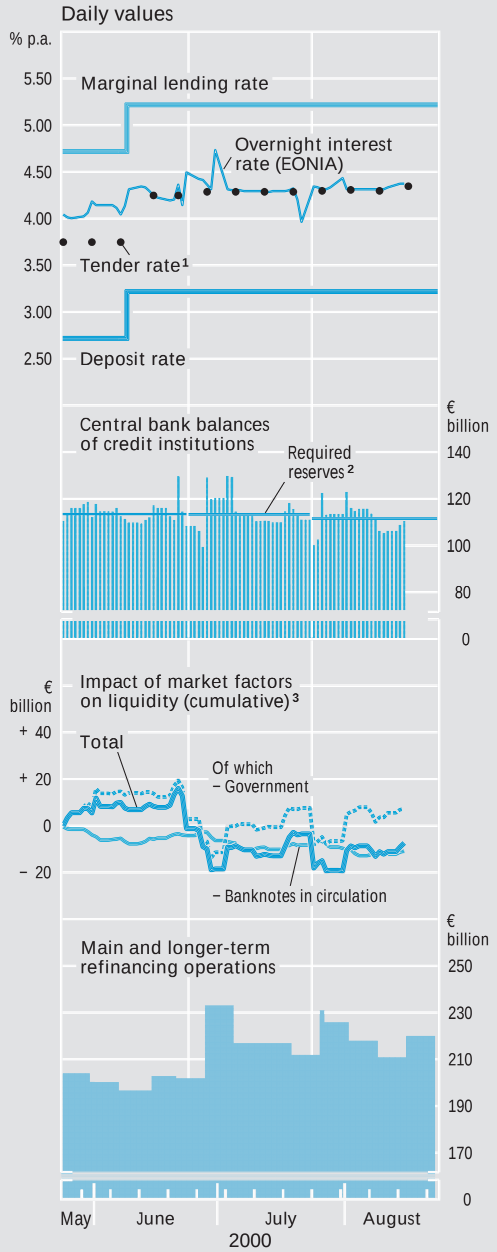
Rise in money market rates

Forward rates had started to increase in the run-up to the increase in central bank interest rates expected by the markets. After the interest-rate move, the strength of which took many market participants by surprise, forward rates continued their rise. On balance, in mid-August they were 30 to 40 basis points higher than their level at the beginning of June. The yield curve on the money market thus remained rather steep.

Publication of estimated liquidity needs

Since the end of June the announcement of the main refinancing operations has been accompanied by information on the liquidity needs of the banking system estimated by the Eurosystem. This is calculated on the basis of the trends in autonomous factors, such as banknotes in circulation or government deposits with the Eurosystem, which are estimated by the national central banks. Its aver-

Interest-rate movements and liquidity management in the Eurosystem



1 Interest rate for main refinancing operations, single allotment rate (for fixed-rate tenders) or marginal allotment rate (for variable-rate tenders). — **2** Maintenance periods: May 24 to June 23, June 24 to July 23, and July 24 to August 23, 2000. — **3** Banknotes in circulation, government deposits with the Eurosystem, net foreign currency reserves of the Eurosystem and other factors; provision (+) or absorption (−) of central bank balances.

Deutsche Bundesbank

Factors determining bank liquidity *

€ billion;
calculated on the basis of daily averages
of the maintenance periods

Item	2000 May 24 to June 23	June 24 to July 23	May 24 to July 23
I. Provision (+) or absorption (–) of central bank balances by			
1. Change in banknotes in circulation (increase: –)	– 0.3	– 2.9	– 3.2
2. Change in government deposits with the Eurosystem	+ 3.6	– 12.1	– 8.5
3. Change in net foreign exchange reserves 1	– 0.7	+ 2.7	+ 2.0
4. Other factors 2	– 0.3	– 4.7	– 5.0
Total	+ 2.3	– 17.1	– 14.8
II. Monetary policy operations of the Eurosystem			
1. Open market operations			
a) Main refinancing operations	– 1.7	+ 17.0	+ 15.3
b) Longer-term refinancing operations	– 0.1	– 0.0	– 0.1
c) Other operations	+ 0.2	– 0.2	± 0.0
2. Standing facilities			
a) Marginal lending facility	– 0.1	+ 0.1	– 0.0
b) Deposit facility (increase: –)	+ 1.5	+ 0.3	+ 1.8
Total	– 0.2	+ 17.1	+ 17.0
III. Change in credit institutions' current accounts (I. + II.)	+ 2.2	– 0.0	+ 2.2
IV. Change in the minimum reserve requirement (increase: –)	– 2.1	+ 0.1	– 2.0
Memo items 3			
Main refinancing operations	140.9	157.9	157.9
Longer-term refinancing operations	59.9	59.9	59.9
Other operations	0.2	–	–
Marginal lending facility	0.3	0.4	0.4
Deposit facility	0.8	0.5	0.5

* For longer-term trends and the contribution of the Deutsche Bundesbank, see pages 14* and 15* in the Statistical Section of this Report. — 1 Including end-of-quarter valuation adjustments with no impact on liquidity. — 2 Including monetary policy operations initiated in Stage Two and outstanding at the beginning of Stage Three (outright transactions and the issuance of debt certificates). — 3 Levels as an average of the maintenance period under review or the last maintenance period.

Deutsche Bundesbank

age value is published for the period from the date of the announcement of the main refinancing operation to the date of settlement of the next main refinancing operation (i.e. generally for nine days) or, in the last operation of a reserve maintenance period, up to the end of the maintenance period. Although this estimate does contain an element of uncertainty, it enables credit institutions – along with information on the required reserves, the amount of funds hitherto provided and reserve maintenance so far – to gain an idea of the allotment volume of the upcoming main refinancing operation. In the final analysis, the estimated liquidity needs are only one of many factors the ECB must look at before making a decision on allotment.

Liquidity management through main refinancing operations ...

During the period under review the Eurosystem's ongoing money market management consisted almost exclusively of main refinancing operations. Their significance will tend to rise further, since the allotments for the longer-term refinancing operations that remain to be settled between end-July and the end of the year will only amount to € 15 billion each, compared with the previous volume of € 20 billion. On June 21 the ECB responded to unexpectedly heavy recourse to the deposit facility on the preceding evening by conducting a liquidity-providing reverse operation with overnight maturity. On balance, it was possible to successfully contain major fluctuations in the EONIA at the ends of the reserve maintenance periods and at the end-of-semester mark.

... and fine-tuning operations

Rise in liquidity needs

The net liquidity-absorbing impact of the autonomous factors on credit institutions' liquidity was € 14.8 billion between May and July (see table on page 16). Also, the minimum reserve requirement rose by € 2.0 billion. Those changes were accompanied by a net replenishment of the open market transactions of the Eurosystem by € 15.2 billion and by reduced recourse to the deposit facility.

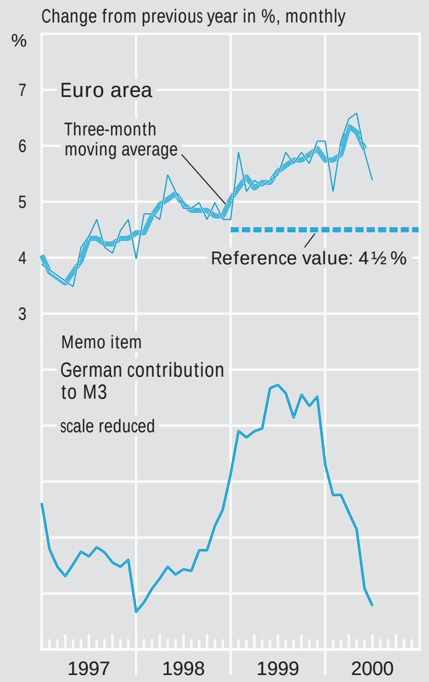
Weakened monetary growth

Following strong growth of the money stock M3 in the first quarter of this year, monetary expansion in the second quarter slowed down, seasonally adjusted. The Eurosystem's interest rate increases probably played a role in this. In June, when M3 went down in absolute terms, special factors apparently arose, leading to strong growth of central government deposits with MFIs, which are not counted towards the money stock. At the end of June euro-area M3 was 5.4 % higher than a year before, as against 6.5 % at the end of March. The three-month moving average of twelve-month rates was 6.0 % between April and June; that put monetary growth 1½ percentage points above the reference value of 4½ %. Consequently, the provision of liquidity to the economy continues to be abundant.

Components of the money stock M3

Among the individual components of the money stock M3, in the second quarter of 2000 growth of overnight deposits was particularly weaker. The year-on-year growth rate of overnight deposits declined from 11.1% at the end of March to 7.1% at the end of June. In the second quarter currency in circulation once again grew moderately, after having declined at the beginning of the year. On the whole, the money stock M1 surpassed

Growth of the money stock M3 in the euro area



Deutsche Bundesbank

its previous year's level by 6.8 % at the end of June, compared with 10.0 % at the end of March. The main reason for the reduced preference of investors for liquid funds probably lies in the increased money market rates, which promoted shifts to forms of investment bearing higher interest. Especially deposits with an agreed maturity of up to two years profited from that development. Investment in marketable instruments, by contrast, was increased rather moderately in the second quarter. Deposits redeemable at a period of notice of up to three months, which are less attractive in terms of their interest rates, were depleted.

Balance-sheet counterparts

MFIs' lending to the private sector likewise weakened in the second quarter of 2000. MFIs' credit to households and enterprises in the euro area surpassed its previous year's level by 9.8 % at the end of June, as against 10.8 % at the end of March. Securitised lending, characterised by sizeable forward transactions of German MFIs, and loans contributed to the slowdown. In seasonally adjusted and annualised terms, they rose by 8 % between April and June, compared with 13 ½ % in the first quarter. Much like the money stock, this difference in the rate of change is likely to have been influenced in part by the interest-rate-policy environment. At the beginning of the year, expectations of a rise in interest rates seem to have given a boost to credit demand; in the meantime, the actual interest rate rise has tended to slow down such demand. Lending to the public sector was cut back distinctly in the second quarter; securitised lending was particularly affected. In addition, the central governments strongly replenished their deposits with MFIs, which do not count towards the money stock. In payments of resident non-MFIs with non-euro-area countries, there were inflows of funds in the second quarter for the first time in quite a while. However, they mostly occurred in June and to a certain degree were linked to the comprehensive forward transactions of German MFIs with non-euro-area countries.

Germany's contribution

The German contribution to M3 in the euro area, which has been growing more sluggishly since the end of last year than the euro-area monetary aggregate, declined in the second quarter of this year after seasonal adjustment. At the end of June it was still 3.6 % higher than a year ago. Even this rate, though, probably overstates the expansion of liquidity in Germany in statistical terms, since investors outside the euro area continued to purchase German money market paper, according to the balance-of-payments statistics.[1] In the weak growth of Germany's contribution, the fact that money from Germany has been flowing out to the other euro-area countries lately following the large inflows of funds from abroad after the launch of monetary union could be playing a role.

Capital market rates and stock prices

Capital market rates still low

On balance, the long-term capital market rates in the euro area declined slightly during the summer months. As this Report went to press, the average yield on ten-year government bonds in the euro-area countries stood at just over 5⅓ % in mid-August. In the light of the favourable growth prospects for the euro area, capital market rates in Europe continue to be extremely low. The Eurosystem's forward-looking monetary policy, which is steadfastly geared towards the objective of price stability, played a crucial role in this context. Apparently it succeeded in stabilising the long-term inflation expectations of the market participants at a low level. In addition, uncertainty about the future interest-rate pattern in the capital market has continued to decrease. Thus, the implied volatility of the Bund future, which measures the degree of price volatility market participants expect in

1 Since the outstanding amount of such paper is reported exclusive of the holdings of domestic MFIs and – owing to statistical difficulties – up to now no distinction has been made between purchasers from the euro area and those from non-euro-area countries, such liabilities of MFIs to investors residing outside the euro area go into the monetary aggregate M3.

the forward market in the near future, again dropped distinctly up to mid-August. In line with the contrasting movements of interest rates in the long and the short end of the market, the spread between capital market rates and money market rates has decreased further during the last few months, i. e. compared to the level of mid-May by almost 70 basis points to only just over one-half percentage point.

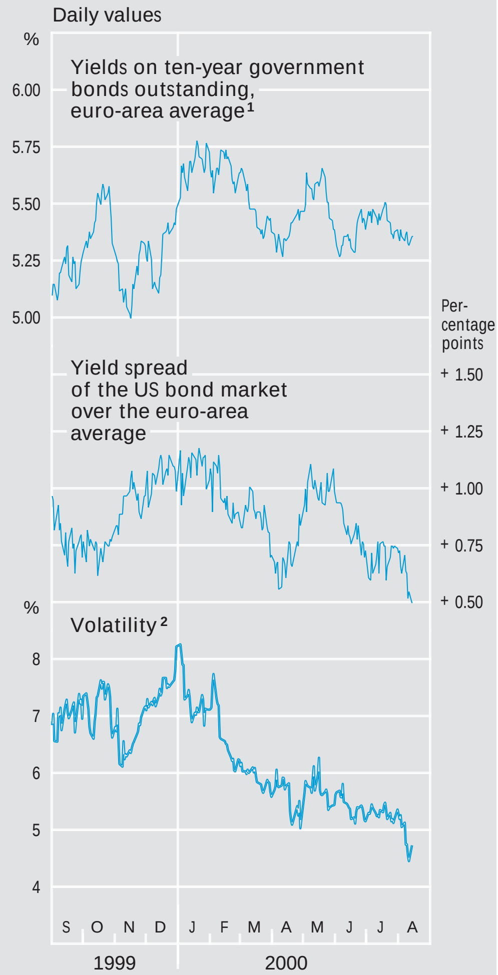
US rates exert downward pressure

In addition to the impact of "home-grown" factors, the favourable interest-rate pattern in the capital market was underpinned by interest-rate movements in the US bond market. In the United States the yield on ten-year government bonds outstanding dropped by three-quarters of a percentage point from May to mid-August, causing the spread of ten-year US Treasuries over comparable euro-area bonds to decline to approximately one-half percentage point. Measured in terms of the difference between the fixed interest rates on ten-year interest swaps, the interest-rate advantage of the United States over the euro area was reduced even more during that period, i. e. from almost two to some 1¼ percentage points. The decrease in long-term interest rates in the US was mainly attributable to higher expectations of a "soft landing" of the US economy which market participants perceive as a necessary condition for containing price pressures.

Stock prices stabilised at a high level

In the course of the summer stock prices in the euro area recovered slightly from the considerable price adjustment which had occurred in the spring and are still relatively high according to conventional assessment criteria. Measured in terms of the Dow Jones Euro STOXX broad index, in mid-August European equity price quotations were barely 7 % below their peak of early March and thus only slightly above the levels recorded at the end of 1999. However, this price trend masks considerable sectoral differences. While the prices of shares of the more traditional sectors increased constantly and rather smoothly, the highly volatile shares of high-tech seg-

Euro-area bond market yields



1 Weighted average yield on ten-year government bonds of the euro-area countries; weighted by GDP. — 2 Implied volatility of the Bund future.

Deutsche Bundesbank

ments determined the pronounced cyclical pattern of the stock market as a whole (see page 24). The drop in the prices for technology-heavy growth stocks last spring appears to be mainly due to a more realistic assessment of the risks associated with investing in such shares which first affected the US stock exchange NASDAQ and then seized the European financial centres, too. Since that time, the traditionally rather close correlation between stock prices in Europe and in the United States has continuously increased.