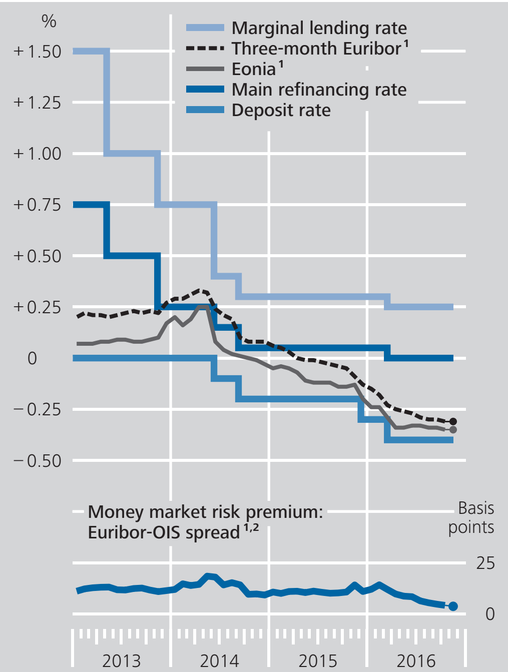
Monetary policy and banking business

Monetary policy and money market developments

ECB Governing Council leaves key policy rates unchanged

Based on its regular economic and monetary analyses, the ECB Governing Council decided to keep key interest rates unchanged in the reporting period. The main refinancing rate therefore remains at 0%, while the marginal lending rate stands at 0.25% and the deposit facility rate at -0.40%. Furthermore, the Eurosystem continued to make purchases as part of the expanded asset purchase programme (APP). These purchases are intended to run until the end of March 2017, or beyond, if necessary, and in any case until the Governing Council sees a sustained adjustment in the path of inflation consistent with its objective of achieving inflation rates below, but close to, 2% over the medium term.

Money market interest rates in the euro area



Sources: ECB and Bloomberg. **1** Monthly averages. **2** Three-month Euribor less three-month Eonia swap rate. • Average 1 to 16 November 2016.

Deutsche Bundesbank

Baseline scenario for HICP inflation largely static

According to the latest ECB staff projections discussed by the ECB Governing Council at the beginning of September, the baseline scenario for GDP growth and inflation in the euro area will remain broadly unchanged. Annual HICP inflation is set to rise to an average of 1.2% in 2017, mainly owing to upward baseline effects in the energy component. ECB staff then expect the inflation rate to rise to 1.6% in 2018 on the back of the continuing economic recovery. In December, the Eurosystem will publish projections that for the first time extend through to 2019.

ECB Governing Council still expects moderate economic recovery and higher inflation

At its monetary policy meeting in October 2016, the ECB Governing Council announced that the information that had become available since September confirmed its expectations of a continued moderate but steady recovery of the euro-area economy and a gradual rise in inflation, but cautioned that the baseline scenario remains subject to uncertainty. The Council therefore expressed its ongoing commitment to preserving the substantial degree of monetary accommodation which is necessary to secure a sustained convergence of inflation towards levels below, but close to, 2% over the medium term. The relevant Eurosystem committees have been tasked with evaluating options to ensure the smooth implementation of the purchase programme going forward. The ECB Governing Council will discuss the results of this evaluation, as well as the aforementioned new forecasts, at its monetary policy meeting in early December.

249 banks borrow €45.3 billion in second TLTRO II

On 28 September, the second in the new series of four targeted longer-term refinancing operations (TLTRO II) launched in March 2016 was conducted. This operation saw 249 institutions taking up an overall volume of €45.3 billion, tending towards the upper end of market expectations. At the same time, repayments of funds provided under the first series of targeted longer-term refinancing operations (TLTRO I)

Money market management and liquidity needs

The two reserve maintenance periods between 27 July 2016 and 25 October 2016 saw a marked increase in euro-area liquidity needs stemming from autonomous factors (see the table below). Compared with the average of the reserve maintenance period June-July 2016, ie the last period preceding the review period, the liquidity needs rose by €57.3 billion to an average of €823.3 billion in the September-October 2016 period (corresponding period in the previous year: €557.5 billion). The sum of the autonomous factors fluctuated within a broad corridor between €735.3 billion and €863.4 billion. The increase in the average liquidity needs resulted mainly from the decline in the combined total of net foreign assets and other factors, which are considered together because of liquidity-neutral valuation effects. This sum declined by €56.9 billion in total, which consequently absorbed liquidity. The rise in the volume of banknotes in circulation, which increased by an average of €7.6 billion in the review period, also raised liquidity needs. By contrast, the decline in government deposits with the Eurosystem, which decreased by €7.2 billion on balance, provided more liquidity. At an average of €168 billion in the reserve maintenance period September-October 2016, they were, however, at a high level again. The minimum reserve requirement rose across the two reserve periods by a total of €1.9 billion to €117.8 billion in the September-October 2016 period, thus additionally pushing up the calculated liquidity needs.

The outstanding tender volume totalled €541 billion on average in the September-October 2016 period and was therefore up by just under €22 billion on the corresponding value for the June-July 2016 period. This increase was attributable mainly to the allotment of the second targeted longer-term refinancing operation of the new series (TLTRO II), for which there was a demand totalling €45.3 billion (see the chart on p 23). Furthermore, on

Factors determining bank liquidity*

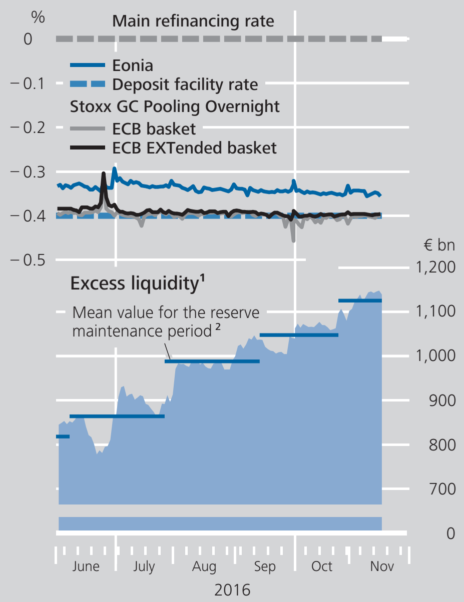
€ billion; changes in the daily averages of the reserve maintenance periods vis-à-vis the previous period

Item	2016: 27 July to 13 September	2016: 14 September to 25 October
I Provision (+) or absorption (–) of central bank balances due to changes in autonomous factors		
1 Banknotes in circulation (increase: –)	– 9.1	+ 1.5
2 Government deposits with the Eurosystem (increase: –)	+ 37.7	– 30.5
3 Net foreign assets[1]	+ 18.9	+ 2.8
4 Other factors[1]	– 44.6	– 34.0
Total	+ 2.9	– 60.2
II Monetary policy operations of the Eurosystem		
1 Open market operations		
(a) Main refinancing operations	– 4.1	– 6.1
(b) Longer-term refinancing operations	+ 12.1	+ 19.8
(c) Other operations	+ 112.6	+ 107.3
2 Standing facilities		
(a) Marginal lending facility	– 0.1	+ 0.1
(b) Deposit facility (increase: –)	– 32.0	– 32.2
Total	+ 88.5	+ 88.9
III Change in credit institutions' current accounts (I + II)	+ 91.3	+ 28.6
IV Change in the minimum reserve requirement (increase: –)	– 0.8	– 1.1

* For longer-term trends and the Bundesbank's contribution, see pp 14• and 15• of the Statistical Section of this Monthly Report. 1 Including end-of-quarter liquidity-neutral valuation adjustments.
Deutsche Bundesbank

Central bank interest rates, money market rates and excess liquidity

Daily data



Sources: ECB, Eurex Repo and Bundesbank calculations. **1** Current account holdings minus the minimum reserve requirement plus the deposit facility. **2** The last period displayed is still ongoing.

Deutsche Bundesbank

Eurosystem purchase programmes

€ billion

Item	Change across the two reserve periods	Balance sheet holdings as at 11 November 2016
Active programmes		
CSPP	+ 24.3	42.2
PSPP	+ 185.3	1,165.1
ABSPP	+ 0.9	21.5
CBPP3	+ 10.5	199.5
Completed programmes		
CBPP2	– 0.4	7.0
SMP	– 6.1	102.0
CBPP1	– 3.4	13.8

Deutsche Bundesbank

the settlement date, 28 September 2016, settlement was effected for the mandatory early repayments from the eight transactions of the first series (TLTRO I) amounting to €1.7 billion and voluntary early repayments arising from the first TLTRO I totalling €9.4 billion. The net supply of liquidity from the second TLTRO II and the early repayments therefore totalled €34.2 billion on the value date (corresponding effect for the first TLTRO II: €38.2 billion). There is now a total of €497.2 billion outstanding from the TLTROs I and II. Against the backdrop of the high level of refinancing via these supplementary longer-term tenders (maturities of up to four years), the demand for regular refinancing operations continued to decline (see the chart on p 24). The volume of the main refinancing operation fell by €10.2 billion compared with the June-July 2016 reserve period to an average of €37.4 billion in the September-October 2016 period, while the outstanding volume of three-month tenders declined by €6.8 billion on the June-July 2016 reserve period to an average of €17.7 billion.

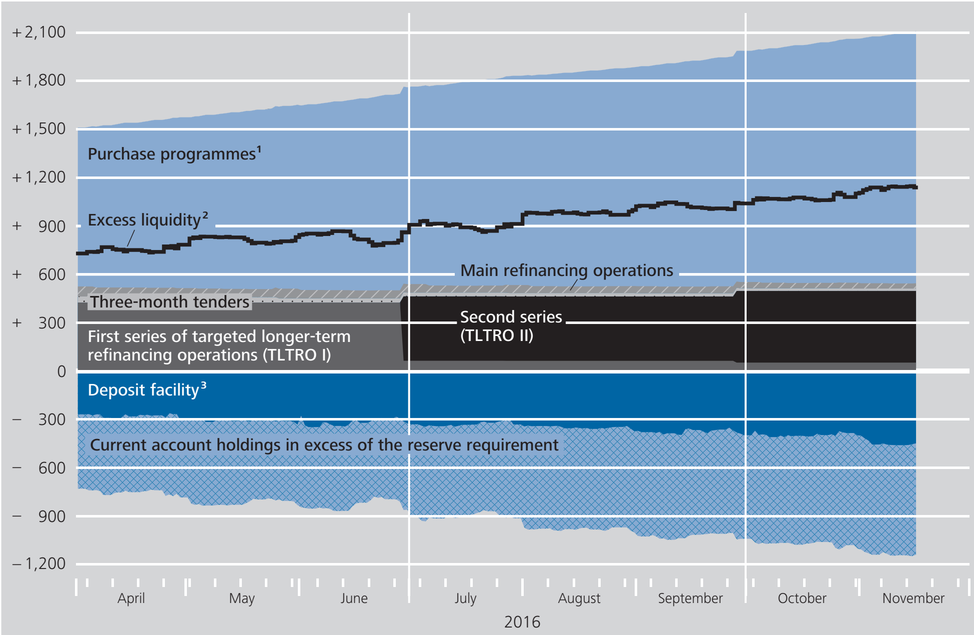
The liquidity provided via the Eurosystem's purchase programmes increased again significantly during the reporting period (see the adjacent table). In the September-October 2016 period, the purchase programmes recorded average balance sheet holdings of assets in the amount of €1,447 billion, which was equivalent to a share of 73% of the total central bank liquidity provided via open market operations during this period on average. €1,319 billion of the liquidity stemming from the purchase programmes was accounted for by the expanded asset purchase programme (APP). In the June-July 2016 maintenance period, the average balance sheet volume of all purchase programmes stood at €1,227 billion.

The excess liquidity rose further owing to this additional supply of liquidity by the Eurosystem, despite being hampered in part by the increased demand for liquidity stemming from autonomous factors. In the September-October 2016 reserve period, excess liquidity averaged €1,047 billion, which was €182 billion higher than its average level recorded in the June-July 2016 reserve period. Almost two-thirds of this excess liquidity was held by credit institutions as excess reserves on their central bank accounts and just over one-third in the deposit facility.

In light of this very high and still rising liquidity surplus, overnight rates in the period under review continued to move in line with the deposit facility rate (see the adjacent chart).

Liquidity provision and use

€ billion, daily data



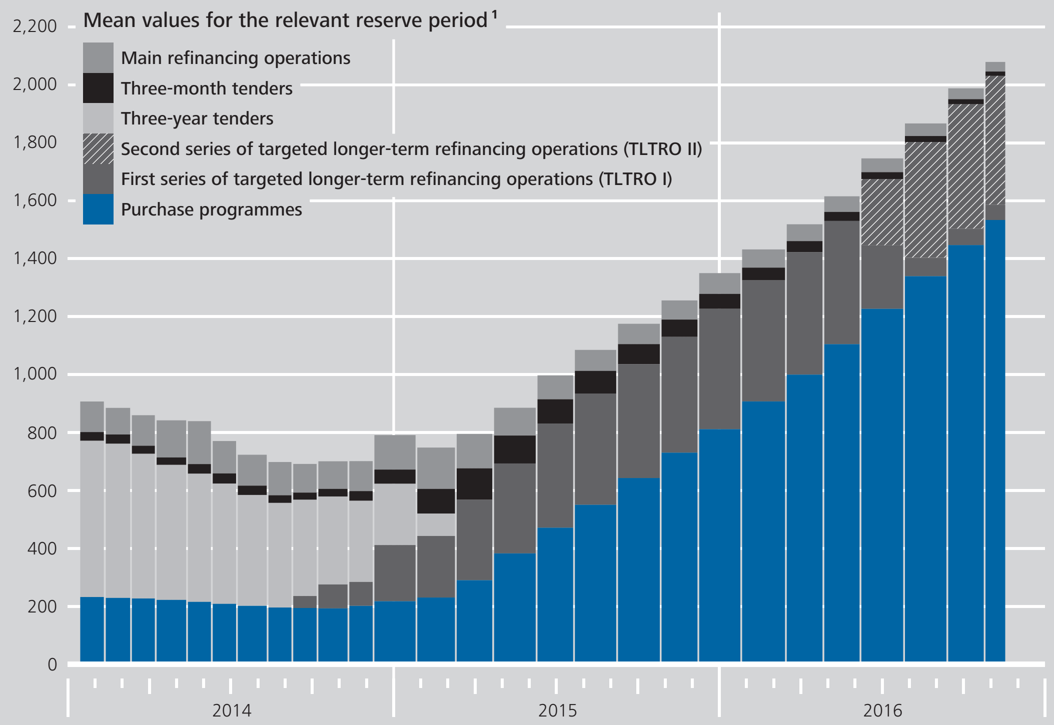
Sources: ECB and Bundesbank calculations. 1 Securities markets programme (SMP), covered bond purchase programmes (CBPP1, CBPP2 and CBPP3), asset-backed securities purchase programme (ABSPP), public sector purchase programme (PSPP) and corporate sector purchase programme (CSPP). 2 Current account holdings minus the minimum reserve requirement plus the deposit facility. 3 The marginal lending facility is not shown in this chart owing to its very low volume.

Deutsche Bundesbank

Eonia continued to hover a few basis points above the deposit facility rate, but contracted slightly (from an average of -0.33% in the June-July 2016 period to just over -0.35% in the September-October 2016 period). By contrast, secured overnight money (GC Pooling Overnight, ECB basket) in the July-September 2016 period, at a rounded average of -0.40%, was only slightly higher than the deposit facility rate, and the average rate even dropped slightly below it to -0.41% in the September-October 2016 period. One particularity here, with a rate of -0.46% at the end of the quarter terminating in September, was that, on the one hand, it coincided with the end of the half-year period for Japanese banks, and, on the other, it was four days long in Germany owing to a weekend and a public holiday. At a rate of -0.96%, the repo funds rate (average rate for general collateral securities and special securities) determined by ICAP BrokerTec for German government bonds shows banks' preference to keep these papers on their balance sheets on that date. Also for GC Pooling, the reasons cited for the interest rates falling below the deposit facility rate include the focus on the securities provided as collateral. The underlying turnover for GC Pooling Overnight was very low in the ECB basket. The average volume across both reserve maintenance periods under review amounted to just €2.1 billion, compared with €8.3 billion in the corresponding periods last year. Although the corresponding overnight turnover in the ECB EXTended basket, which contains a broader pool of collateral, was slightly higher at an average of €3.9 billion, it likewise posted a decline (€6.6 billion in the previous year). Overnight money in this basket was, on average, traded at just under one basis point above the rate for the ECB basket in the period under review. Eonia turnover, which stood at an average of €9.8 billion, was also low in the two periods under review when compared with the two corresponding prior-year periods (€15.5 billion on average).

Outstanding liquidity following open market operations in the euro area

€ billion



Sources: ECB and Bundesbank calculations. **1** The bar width corresponds to the length of the reserve periods. The last period displayed is still ongoing.
Deutsche Bundesbank

amounted to €11 billion in total, comprising voluntary repayments to the tune of €9.4 billion and mandatory repayments of €1.6 billion from institutions whose new net lending had failed to exceed their benchmark. The net liquidity effect therefore stood at €34.3 billion. The third in the series of four TLTRO II operations will be conducted in December of this year.

Purchase volumes still in line with target

On 11 November 2016, the Eurosystem held assets in the amount of €1,165.1 billion as part of the public sector purchase programme (PSPP). The average residual maturity of the PSPP portfolio has risen and currently stands at 8.4 years. The outstanding amounts purchased to date under the third covered bond purchase programme (CBPP3) and the asset-backed securities purchase programme (ABSPP) came to €199.5 billion and €21.5 billion respectively. Purchases made under the corporate sector purchase programme (CSPP) totalled €42.2 billion as at 11 November. In sum, the volume of assets purchased under the APP is thus in line with the targeted average monthly volume of €80 billion.

Excess liquidity continues to follow positive trend

In the period under review, excess liquidity grew by around €170 billion, thus continuing the upward trend seen since the launch of the APP. The increase was mainly driven by the continuation of the asset purchase programmes as well as the positive net liquidity effect stemming from the TLTROs, which more than offset the decline in the regular tender operations. At last count, excess liquidity amounted to around €1,148 billion. Volumes are expected to continue rising throughout the rest of this year on the back of the monthly APP purchases.

Lower market expectations of falling interest rates

With the ECB Governing Council leaving policy rates unchanged in the reporting period, the unsecured overnight money market rate (Eonia) again hovered within a narrow corridor between -0.32% and -0.36%, remaining close to the deposit facility rate. The secured overnight

Consolidated balance sheet of the MFI sector in the euro area*

€ billion, 3-month accumulated flows, end-of-quarter data, seasonally adjusted

Assets	2016 Q3	2016 Q2	Liabilities	2016 Q3	2016 Q2
Credit to private non-MFIs in the euro area	115.8	60.0	Central government deposits	– 21.5	4.3
Loans	67.1	22.1	Monetary aggregate M3	125.4	109.2
Loans, adjusted1	70.1	57.4	*of which* Components		
Securities	48.7	37.9	Currency in circulation and overnight deposits (M1)	145.3	94.7
Credit to general government in the euro area	66.8	121.0	Other shorter-term bank deposits (M2-M1)	– 21.9	– 2.2
Loans	– 7.1	– 10.6	Marketable instruments (M3-M2)	2.0	16.8
Securities	73.6	131.6	MFI longer-term financial liabilities	– 57.1	– 9.4
			of which		
Net external assets	– 115.9	– 60.4	Capital and reserves	12.6	26.8
Other counterparts of M3	– 19.5	– 16.5	Other longer-term financial liabilities	– 69.7	– 36.2

* Adjusted for statistical changes and revaluations. **1** Adjusted for loan sales and securitisation as well as for positions arising from notional cash pooling services provided by MFIs.
Deutsche Bundesbank

rate (Stoxx GC Pooling) once again fell below the Eonia rate, reaching a new low of around -0.457% at the end of the quarter, but remaining close to the deposit rate the rest of the time. The three-month Euribor declined at a noticeably slower pace, standing at -0.311% the current end, only around 1 basis point lower than the level recorded at the end of the last reporting period. There has been a significant rise in money market forward rates lately across all maturities but particularly at the longer end of the range. This increase suggests that market participants now consider a further cut in the deposit rate much less likely than in previous months.

Monetary developments in the euro area

Monetary developments still strongly influenced by monetary policy

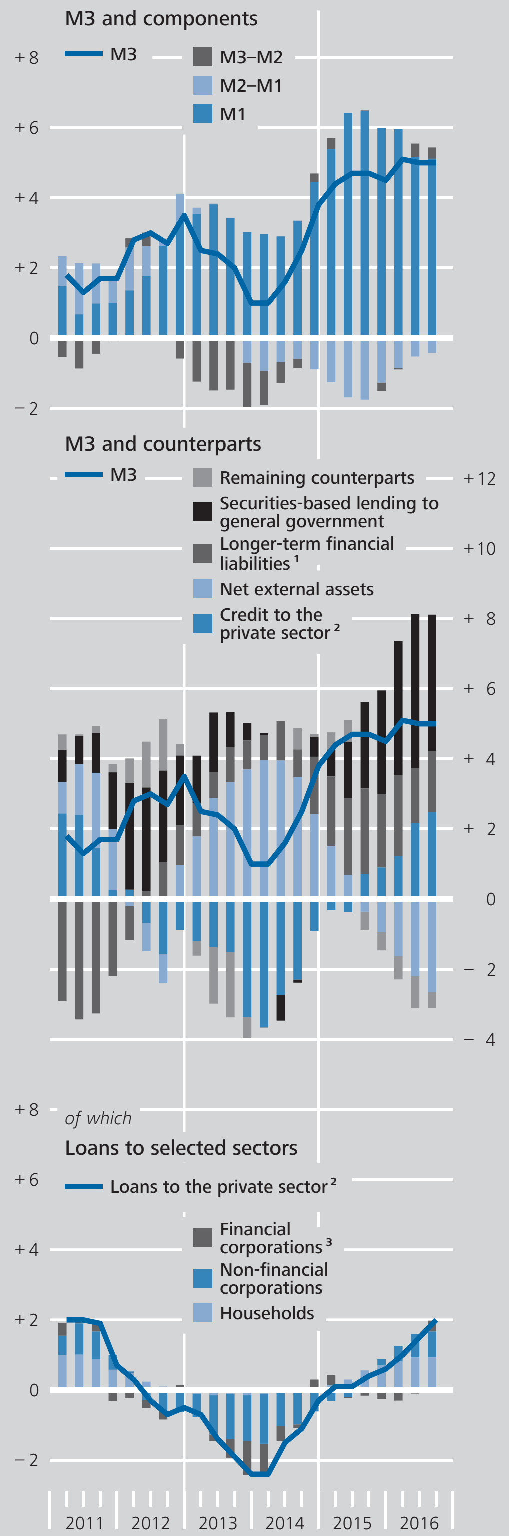
The broad monetary aggregate M3 continued its noticeable upward trajectory in the third quarter of 2016. A key factor driving monetary growth was once again an increase in overnight deposits in a setting of low opportunity costs. Looking at the counterparts, monetary developments were supported, in particular, by the ongoing recovery in lending to the non-financial private sector. At the same time, the MFI sector further expanded its securities-based lending to the private sector. Another important factor in the expansion of the money stock was the continued growth in securities-based lending to general government, which is being fuelled to a large extent by the Eurosystem's asset purchases. However, these positive influences were partially cancelled out by substantial outflows of funds from the euro area which are, in turn, probably closely linked to the Eurosystem's monetary policy measures. At 5.0%, the annual growth rate of M3 was unchanged on the quarter, thus remaining at the level observed since mid-2015.

M3 growth still dominated by overnight deposits

The expansion of M3 between July and September was once again driven by considerable inflows to overnight deposits, which both households and non-financial corporations continued to expand. By contrast, small outflows were again observable from other short-term deposits held by the non-financial private sector, which include short-term time deposits and savings deposits. This mirrors the continuation of a four-year trend in which monetary growth has been fuelled primarily by rising overnight deposits. This development is doubtless chiefly attributable to the interest rate setting, which has been marked by a very low yield spread of long-term government bonds over monetary assets, making it attractive *per se* to hold cash. In addition, interest rates on other short-term deposits have decreased more

Monetary aggregates and counterparts in the euro area

Year-on-year percentage growth rates; growth contributions in percentage points; end-of-quarter data; seasonally adjusted



Source: ECB. **1** Denoted with a negative sign because, per se, an increase curbs M3 growth. **2** Adjusted for loan sales and securitisation as well as for positions arising from notional cash pooling services provided by MFIs. **3** Non-monetary financial corporations.

Deutsche Bundesbank

decisively than those for overnight deposits, encouraging shifts within M3 into the highly liquid monetary component.

Smaller rise in loans to non-financial corporations than in previous quarters

In terms of the monetary counterparts, the mainstay of monetary growth in the reporting quarter was lending to the euro-area private sector. This included, in particular, loans to private non-MFIs adjusted for securitisation and other one-off effects. Such loans continued to rise against the backdrop of historically low interest rates and the continued economic recovery in the euro area. However, growth in lending to non-financial corporations was considerably weaker between July and September than in the two preceding quarters. This was due to the fact that the continued pick-up in medium and longer-term lending was accompanied by comparatively high net redemptions in the short-term maturity segment, which is usually very volatile (see the above chart on page 27). Overall, the annual growth rate of loans to non-financial corporations, which has shown an upward drift since the third quarter of 2014, continued to rise, reaching 1.9% at the end of September.

No further easing of credit standards for loans to enterprises

The results of the Bank Lending Survey (BLS) indicate that growth in non-financial corporations' demand for bank loans in the euro area in the third quarter expanded moderately, although less strongly than in the preceding quarters. The respondents mainly put this increase down to the low general level of interest rates and to businesses' financing needs for corporate restructuring as well as for debt refinancing and restructuring. However, enterprises' use of alternative sources of financing, especially internal financing and the issuance of debt securities, had a dampening effect. Banks left their standards for lending to enterprises unchanged during the third quarter.

Discernible country-specific differences in loan dynamics

At country level, the increase in loans to non-financial corporations over the past few quarters is mainly attributable to credit institutions domiciled in the two largest member states (see the lower chart on page 27). After a weaker second quarter, credit institutions in Germany expanded their lending again in the third quarter. French banks, too, stepped up their lending once more, albeit at a slower pace, against the backdrop of relatively strong investment and the persistently weak internal funding of non-financial corporations domiciled in France. Loans to enterprises by Italian and Spanish banks did not contribute any growth momentum to the euro-area aggregate; lending, which is following a weak upward trend in any case, appears to be faltering in both countries. It is reasonable to assume that, in Italy, demand from non-financial corporations was limited owing to the relatively weak investment dynamics. On the other hand, business investment in Spain during the last few quarters was strong by historical standards. However, at the same time, non-financial corporations received ample funding from internal financing sources and the issuance of equity instruments, which is likely to have curtailed their demand for bank borrowing in the third quarter, too.

Moderate growth in loans to households driven by mortgages

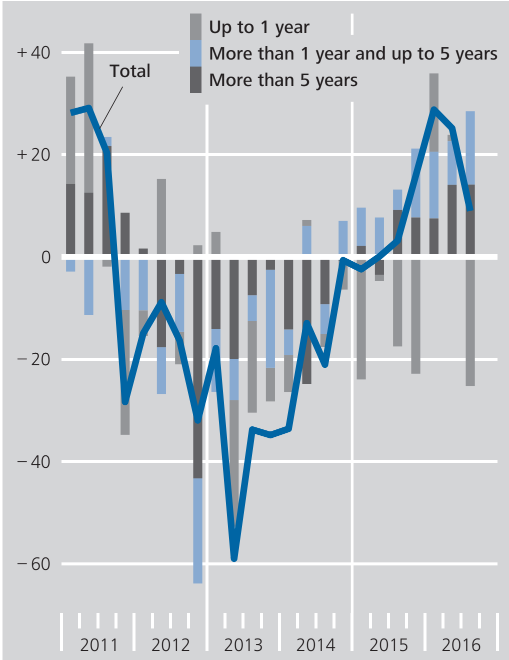
Lending to euro-area households continued its upward trend in the third quarter of 2016 but, at an annual rate of 1.8% at the end of the reporting quarter, growth remained moderate. The main drivers of this growth were once again loans for house purchase, particularly in Germany and France. For the euro area as a whole, the household demand for mortgages continued to increase in the third quarter according to the BLS data. The respondent bank managers stated that demand was mainly supported by the low general level of interest rates, the outlook on the housing market and the anticipated house price trend. On balance, credit standards in this segment were eased somewhat.

Growth in consumer credit somewhat slower

Despite the persistence of expansionary underlying dynamics in euro-area private consumption, growth in consumer credit in the reporting quarter was again more subdued compared with the fourth quarter of 2015 and the first quarter of 2016. The banks surveyed in the BLS

Loans to non-financial corporations in the euro area*

€ billion, 3-month accumulated flows, end-of-quarter data, seasonally adjusted



Sources: ECB and Bundesbank calculations. * Aggregate adjusted for loan sales and securitisation as well as for positions arising from notional cash pooling services provided by MFIs.
Deutsche Bundesbank

Loans to non-financial corporations in the euro area*

€ billion, 3-month accumulated flows, end-of-quarter data, seasonally adjusted

Sources: ECB and Bundesbank calculations. * Loans adjusted for loan sales and securitisation. 1 Additionally adjusted for positions arising from notional cash pooling services provided by MFIs.
Deutsche Bundesbank

How asset purchase programmes affect the consolidated balance sheet of the MFI sector

Monetary developments in the euro area since 2015 have been heavily influenced by the effects of the expanded asset purchase programme (APP), the impact of which can be visualised by the consolidated balance sheet of the MFI sector.[1] A comparison of this balance sheet at two points in time reveals all the transactions carried out by the MFI sector – including the Eurosystem – with domestic non-banks and non-euro-area residents (see the table on page 25).

A basic distinction must first be made between direct effects, meaning an increase in the money stock as a direct result of asset purchases by the central bank, and indirect effects, which are triggered by adjustment responses. Whether an asset purchase by the Eurosystem has direct effects on the monetary aggregate M3 and which items on the consolidated balance sheet of the MFI sector it affects depends on whether the seller belongs to the MFI sector, the domestic money-holding sector or is a non-euro-area resident.[2] This box seeks to shed light on this topic using the example of purchases of bonds issued by euro-area governments. The information set out in the following applies *mutatis mutandis* to purchases of domestic corporate bonds, except that the item in question on the consolidated balance sheet of the MFI sector is not "securities-based lending to euro-area general government" but "securities-based lending to euro-area private sector non-MFIs".

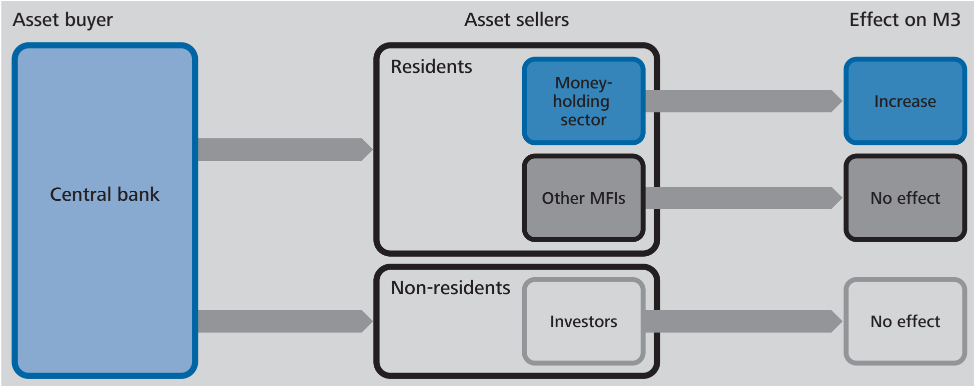
Government bond purchases have a direct effect on the monetary aggregate M3 only if the central bank ultimately purchases the assets from the stock of the domestic money-holding sector (primarily private corporations or households). In this case, the transactions lead to an increase in securities-based lending to general government on the assets side of the consolidated balance sheet, while the payment transaction, in the form of overnight deposits, say, boosts the monetary aggregate M3 on the liabilities side.[3]

If, on the other hand, the seller of the government bonds is a non-euro-area resident, the counterparts of M3 likewise see an increase in securities-based lending to general government by the MFI sector. The payment transaction, however, drives up the liabilities of the central bank or a domestic credit institution to the non-resident seller, thereby diminishing the MFI sector's net external asset position.[4] The monetary aggregate M3 remains static because domestic non-banks' money holdings have not changed.

---

1 Further information on the consolidated balance sheet of the MFI sector can be found in Deutsche Bundesbank, The consolidated balance sheet of the MFI sector and its significance for monetary analysis, Monthly Report, July 2013, pp 55-56. The MFI sector chiefly comprises central banks, credit institutions and money market funds (MMFs) resident in the euro area. Since MMFs are only permitted to invest in longer-term assets to a very limited degree, they are not analysed separately here.
2 The fourth category, bond sales by euro-area central governments, which is probably less significant in quantitative terms, is not discussed here.
3 Because the seller does not normally have an account directly with the central bank, the purchase price must be paid via the bank operating the seller's account. This increases the bank's central bank balance by the amount in question, while the bank credits the purchase price to its customer's account. For the bank, this transaction effectively extends its balance sheet. However, the increase in the bank's central bank balance is not visible on the consolidated balance sheet of the MFI sector overall because it does not lead per se to any change in claims and liabilities vis-à-vis the non-MFI sector and is eliminated through consolidation.
4 Since the seller will not normally have an account with the Eurosystem, the purchase price must be paid via the bank operating the seller's account. If that bank is a euro-area MFI, this transaction will be settled as described in footnote 3 above.

Direct effects of a monetary policy asset purchase programme on M3
Illustration based on the consolidated balance sheet of the MFI sector



Deutsche Bundesbank

If the central bank purchases a government bond from a domestic credit institution's stock, this transaction likewise has no direct impact on M3. The asset merely changes hands within the MFI sector, with the result that the overall stock of securities-based lending to general government attributable to the MFI sector remains unaltered by this transaction. At the same time, the central bank balance of the credit institution selling the asset is increased by the payment transaction. However, this does not appear on the consolidated balance sheet either, because the rise in credit institutions' assets is cancelled out by an identical increase in Eurosystem liabilities.

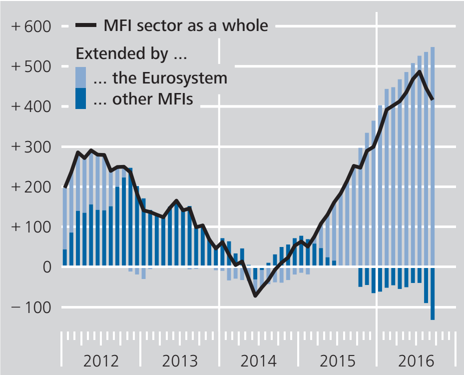
As well as being directly affected by the asset purchases, the monetary aggregate is also affected indirectly by the various adjustment responses by MFIs and non-banks. These occur, for instance, via the portfolio rebalancing channel, ie as a result of investors responding to government bond purchases by the central bank by adjusting their portfolios. Other forms of transmission are also possible, including the impact of monetary policy on market participants' expectations (the signalling channel) and on the financial situation of credit institutions and borrowers (the bank capital and balance sheet channel) and via the exchange rate channel.[5]

These types of indirect effects can have a positive or negative effect on the monetary aggregate. Indirect positive effects may stem, for instance, from an expansion of the MFI sector's lending to the domestic money-holding sector in the form of loans or securities-based lending and the deposits this creates, which form part of the monetary aggregate. By contrast, an indirect effect that weakens the impact of the purchase programme on the monetary aggregate occurs if, say, the domestic money-holding sector uses the deposits it has received to purchase external assets, in which case – taken in isolation – there is a simultaneous reduction in the MFI sector's net external asset position and the money aggregate M3. Other adjustment responses that likewise reduce the monetary aggregate may occur if the domestic money-holding sector uses the deposits it has received to redeem outstanding MFI loans, if

5 See Deutsche Bundesbank, The macroeconomic impact of quantitative easing in the euro area, Monthly Report, June 2016, pp 29-53.

Securities-based lending to general government in the euro area

€ billion, 12-month accumulated flows



Sources: ECB and Bundesbank calculations.
Deutsche Bundesbank

enterprises use capital market funding as a substitute for bank funding, or if short-term deposits included in M3 are shifted into longer-term MFI sector liabilities not included in M3.[6] Lastly, further down the road, the real economic effects of the purchase programme may lead to feedback effects on the items of the consolidated balance sheet.

It is difficult to say how strongly these effects are influencing euro-area monetary developments at present. For one thing, a lack of statistical data about the actual sellers behind the transactions means that the direct effects of the bond purchases can only be estimated. For another, it is not readily possible to project how the balance sheet items in question would have developed in the absence of the Eurosystem's bond purchases. That being said, a glance at the data provided by the consolidated balance sheet of the MFI sector does reveal a number of underlying trends.[7]

If securities-based lending to general government in the euro area is broken down into loans originated by the Eurosystem and those originated by MFIs excluding the Eurosystem, as shown in the chart above, it is evident that the sharp growth seen over the last year and a half was driven by the Eurosystem's purchases as part of the asset purchase programme (APP) launched in March 2015. By contrast, credit institutions resident in the euro area have significantly reduced their stock of euro-area government bonds since the beginning of 2015. This suggests that they were sellers, which probably resulted in an appreciable share of the funds provided by the Eurosystem remaining in the MFI sector.

If data from the consolidated balance sheet of the MFI sector are merged with those from the balance of payments statistics, there is evidence to suggest that non-resident investors are also likely to have sold large volumes of government bonds to the Eurosystem. The chart on the following page shows that the ongoing decline in the net external position observed since the end of 2014 coincided with outflows of funds from the euro area in connection with net sales of domestic government bonds by non-residents. Inasmuch as these transactions were sales to the Eurosystem, they did not lead to a direct increase in the monetary aggregates in the consolidated balance sheet of the MFI sector, but to shifts between two counterparts of M3: a rise in the MFI sector's securities-based lending to gen-

6 These leakage effects are discussed in greater detail in N Butt, S Domit, M McLeay, R Thomas and L Kirkham, What can the money data tell us about the impact of QE?, Bank of England Quarterly Bulletin 2012 Q4, pp 321-331.
7 All the following examples relate to purchases of government bonds. It is more difficult to make similar statements about the corporate bond purchase programme launched in June this year, as the data history is still short and it is harder to identify the bonds eligible for purchase on the basis of the data sources used here. For one thing, the Eurosystem is only permitted to purchase investment-grade bonds. For another, the data series for the Eurosystem's holdings of bonds issued by the euro-area private non-banking sector also include the asset-backed securities purchased as part of the APP as well as bonds issued by agencies, which were eligible for the PSPP until May 2016.

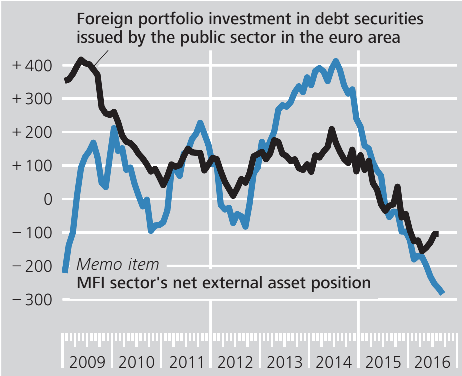
eral government and a drop in the MFI sector's net external asset position.

On the whole, the data support the notion that the direct effects of the Eurosystem's government bond purchases on the monetary aggregate M3 were significantly smaller than the reported purchase volumes.

When assessing the effects of the APP on money, it should be noted that there is no need for the asset purchases to have a direct effect on the money aggregates in order for the programme to be effective. In the models used to analyse purchase programmes, an increase in money or in bank deposits reflects the transmission of the programme, but it is not the cause of its effect.[8] This is why, in the context of monetary analysis, monetary developments are just one of several variables that can be used to assess the effects of a purchase programme and must be evaluated in the overall context of the consolidated balance sheet of the MFI sector and developments in the financial and credit markets.

Net purchases of euro-area government bonds by non-residents

€ billion, 12-month accumulated flows



Sources: ECB and Bundesbank calculations.
Deutsche Bundesbank

8 See Deutsche Bundesbank (2016), op cit.

reported yet another increase in demand for consumer credit, which they attributed mainly to the low general level of interest rates and consumers' strong propensity to purchase. Standards in this segment were eased somewhat.

Clear rise in securities-based lending to private sector

In addition to granting more loans, the MFI sector also significantly increased its securities-based lending to the private sector in the third quarter of 2016, raising its holdings of bonds as well as shares and other equity. The increase in bond portfolios resulted from growth in Eurosystem holdings, which was presumably fuelled chiefly by purchases under the CSPP that was launched in June 2016. By contrast, credit institutions reduced their bond holdings on balance after they had built them up during the second quarter. This may indicate that banks purchased corporate bonds in April and May in anticipation of the CSPP and then sold them to the Eurosystem following the programme's launch.

Weaker impact of Eurosystem government bond purchases on securities-based lending to public sector

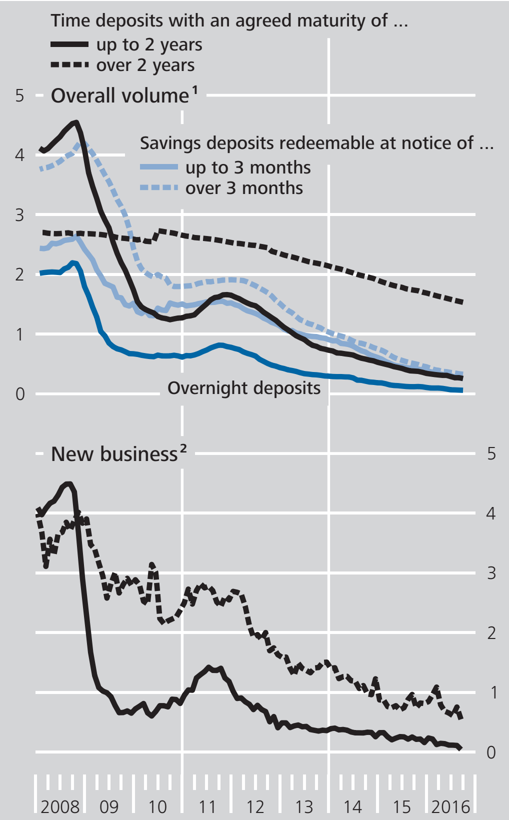
Securities-based lending to general government was once again a key driver of monetary growth. The rise in securities-based lending was due above all to Eurosystem purchases under the PSPP. However, its contribution to monetary growth was less pronounced than in the previous quarters, as the Eurosystem's net purchases were partly offset by the mounting net sales by other MFIs (see the box on pages 28 to 31 for more information on the impact of government bond purchases on the consolidated balance sheet of the MFI sector).

Continued outflows in longer-term financial liabilities

M3 was positively influenced in addition by considerable outflows in MFI longer-term financial liabilities, which affected both long-term time deposits and savings deposits as well as bank bonds with a maturity of over two years. Thus the significant decline in bank funding via long-term debt instruments, which has been observed since the fourth quarter of 2011 but had weakened somewhat in the second

Interest rates on bank deposits in Germany*

% pa, monthly data



***** Deposits of households and non-financial corporations. **1** According to the harmonised MFI interest rate statistics. Volume-weighted interest rates across sectors. Interest rate levels for overnight and savings deposits may also be interpreted as new business due to potential daily changes in interest rates. **2** According to the harmonised MFI interest rate statistics. Volume-weighted interest rates across sectors and maturities. Unlike the overall volume of contracts (ie deposit contracts on the balance sheet at the end of the month), the volume of new business (ie all contracts concluded in the course of a month) is explicitly recorded for time deposits only.

Deutsche Bundesbank

quarter of 2016, resumed between July and September.

M3 growth substantially dampened per se by MFI sector's net external asset position

The decline in the MFI sector's net external asset position had a substantial dampening effect *per se* on monetary dynamics. This was in part a consequence of the Eurosystem's asset purchase programmes. For one thing, it is likely that the Eurosystem ultimately again bought a sizeable amount of bonds from foreign investors in the reporting quarter, resulting in an outflow of funds from the euro area to non-residents (see the box on pages 28 to 31). The balance of payments data currently available for July and August indicate that non-resident investors once again sold appreciable volumes of government bonds issued in the euro area, which may well be connected with the PSPP. For another thing – and this arguably had a greater impact on volumes – the balance of payments data suggest that both non-resident investors and domestic non-banks continued to substitute domestic securities by foreign paper, which can probably be attributed not least to indirect effects of the purchase programme, such as portfolio shifts or changes in market participants' expectations.

German banks' deposit and lending business with domestic customers

Deposit growth still dominated by build-up of overnight deposits

Driven once again by substantial increases in overnight deposits, deposits with German banks continued their positive growth trend of recent quarters during the third quarter of 2016. Short-term deposits other than overnight deposits also recorded slight inflows. In addition, long-term deposits continued to decline, albeit at a comparatively moderate rate. The main reason for the ongoing build-up of overnight deposits is presumably the small and further narrowing yield spread of alternative bank deposit instruments which, however, offer less flexibility (see the adjacent chart).

Build-up in shorter-term deposits segment driven by non-financial private sector

The sectoral breakdown in the reporting period showed little change against the prior quarters. Thus households were again primarily responsible for the growth in short-term bank deposits in the reporting quarter as they boosted their overnight deposits substantially. Non-financial corporations likewise recorded another increase in their overnight deposits, albeit to a lesser extent than in the preceding quarters, whereas their stocks of short-term time deposits showed a somewhat bigger increase than before. In the quarter under review the demand for highly liquid bank deposits by the non-financial private sector was probably again supported by strong corporate profitability and high levels of disposable income among households. Financial corporations, whose investment behaviour is influenced more by return considerations, further reduced their net deposits in this segment.

Fall in long-term deposits due mainly to insurers

The quarter under review saw a continuation of the decline in long-term deposits observed since 2010. As in the preceding quarters, this was chiefly attributable to the sustained net reduction in insurance undertakings' time deposits with an agreed maturity of over two years. In addition, households reduced their long-term savings deposits further in net terms. They have now persistently cut their savings deposits redeemable at notice of over three months to such an extent that their current holdings amount to less than half the volume when European economic and monetary union was launched. The long-term time deposits of insurance undertakings have also seen continued net outflows since the crisis. Nevertheless, these volumes currently stand at much the same level as at the start of monetary union on account of considerable growth prior to the crisis which has only now levelled off.

Further jump in lending to domestic non-banks

German banks' lending to the domestic non-bank sector once again rose significantly in the third quarter. The sole exception, as in the preceding quarters, was lending to general government, reflecting not least that sector's low financing needs given the favourable state of public finances. By contrast, loans to the domestic private sector, in particular, expanded considerably on balance. In addition, banks in Germany – unlike in the euro area as a whole – also slightly increased their holdings of private-sector securities again in the third quarter.

Loans to the private sector still driven by mortgages

The largest net inflows in loans to the private sector related to lending to households, which, as in the preceding quarters, was mainly driven by loans for house purchase. Mortgage lending grew at approximately the same rate between July and September as it has since the third quarter of 2015. On balance, the year-on-year growth rate remained stable at 3¾% (see the box on pages 36 and 37). The demand for housing loans continued to be supported by the extremely low level of interest rates, with the MFI interest rate statistics revealing a further rate drop in long-term residential mortgage rates during the third quarter to a new all-time low of 1.7% at the end of September.

This is consistent with the BLS finding that demand tended to be boosted by the low general level of interest rates, the positive outlook for the housing market and for residential property price development as well as stable consumer confidence. The fact that bank managers surveyed in the BLS nevertheless reported a moderate decline in mortgage demand on balance

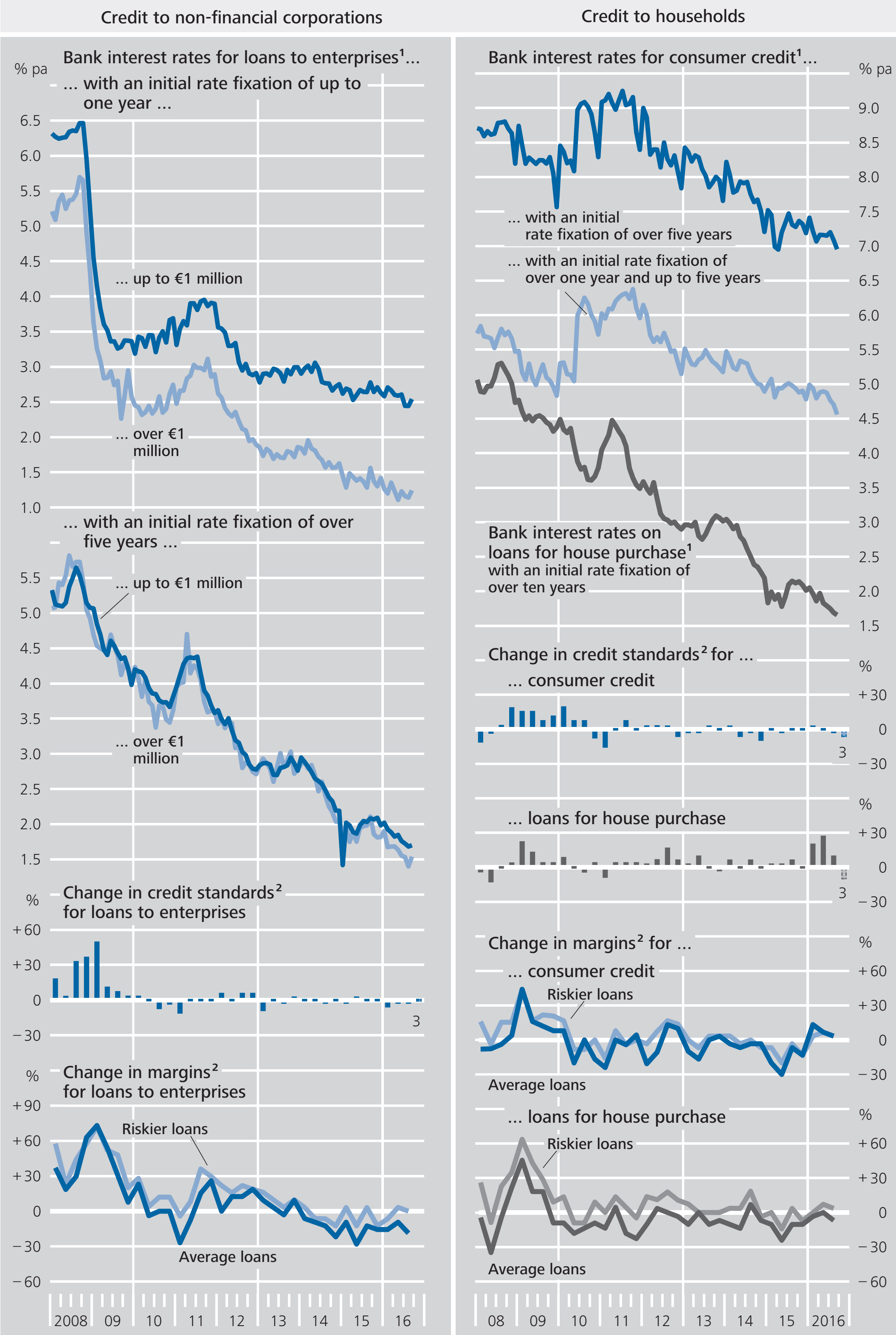
Lending and deposits of monetary financial institutions in Germany*

3-month accumulated flows in € billion, end-of-quarter data, seasonally adjusted

Item	2016 Q2	2016 Q3
Deposits of domestic non-MFIs[1]		
Overnight	26.6	26.8
With an agreed maturity of		
up to 2 years	− 2.1	7.9
over 2 years	− 2.9	− 3.9
Redeemable at notice of		
up to 3 months	0.8	0.5
over 3 months	− 2.1	− 2.4
Lending		
to domestic general government		
Loans	− 3.2	− 0.9
Securities	− 7.9	− 5.7
to domestic enterprises and households		
Loans[2]	15.2	23.1
of which to households[3]	11.3	11.0
to non-financial corporations[4]	0.3	8.1
Securities	4.9	4.9

* As well as banks (including building and loan associations, but excluding the Bundesbank), monetary financial institutions (MFIs) here also include money market funds. End-of-quarter data, adjusted for statistical changes and revaluations. 1 Enterprises, households and general government excluding central government. 2 Adjusted for loan sales and securitisation. 3 Including non-profit institutions serving households. 4 Non-financial corporations and quasi-corporations.
Deutsche Bundesbank

Banking conditions in Germany



1 New business. According to the harmonised euro-area MFI interest rate statistics. Until May 2010, the aggregate interest rate was calculated as the average rate weighted by the reported volume of new business. As of June 2010, an interest rate weighted by the reported volume of new business is first calculated for each level. The aggregate interest rate is calculated by weighting the interest rates for the levels by the extrapolated volumes. **2** According to the Bank Lending Survey; for credit standards: difference between the number of respondents reporting “tightened considerably” and “tightened somewhat” and the number of respondents reporting “eased somewhat” and “eased considerably” as a percentage of the responses given; for margins: difference between the number of respondents reporting “widened considerably” and “widened somewhat” and the number of respondents reporting “narrowed somewhat” and “narrowed considerably” as a percentage of the responses given. **3** Expectations for 2016 Q4.

Deutsche Bundesbank

was prompted by the fact that some of them attributed it, amongst other things, to the loss of market share recorded by their institutions to other banks both within and outside the sample. The majority of BLS respondents did not adjust their standards for loans for house purchase. Against the backdrop of the Act implementing the Mortgage Credit Directive and amending accounting rules *(Gesetz zur Umsetzung der Wohnimmobilienkreditrichtlinie und zur Änderung handelsrechtlicher Vorschriften),* which entered into force in March 2016, credit standards were tightened somewhat only in a few individual cases and on a much smaller scale than in the previous quarter (see the box on pages 36 and 37).

Consumer credit up slightly

Slight inflows were recorded in consumer credit to households in the quarter under review. Banks participating in the BLS likewise reported a marked rise in demand on balance, identifying the main drivers as consumers' stronger propensity to purchase, the low general level of interest rates and the high degree of consumer confidence. Demand was dampened, on the other hand, by the greater inclination for households to draw on their own savings. Standards for consumer loans remained largely unchanged.

Marked rise in lending to non-financial corporations …

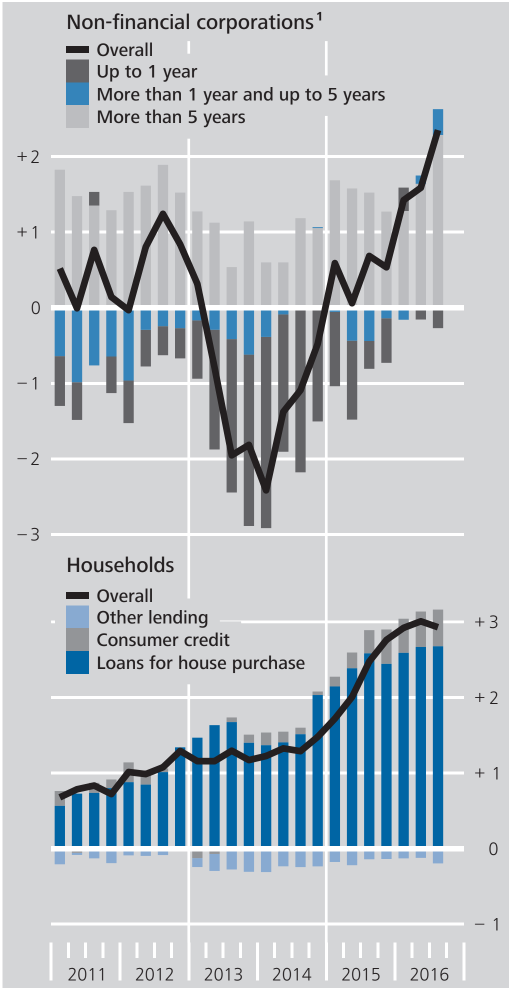
Following a rather weak second quarter, banks markedly expanded their net lending to domestic non-financial corporations in the third quarter, as in the first three months of the year, recording particularly strong growth in long-term lending.

… with virtually unchanged credit standards

This is consistent with the BLS survey results, according to which non-financial corporations' demand for bank borrowing rose slightly, in net terms, in the third quarter. The respondents pinpointed the key demand factors as funding needs for debt restructuring, refinancing and renegotiations as well as the low general level of interest rates. For example, at the end of September, domestic enterprises paid interest amounting to 2.5% for small-volume and 1.2% for large-volume loans in the short-term segment, while the respective interest rate on long-term loans in these categories stood at 1.7%. By contrast, firms' ample recourse to alternative sources of funding such as internal financing or debt securities issuance had a dampening effect on demand if viewed in isolation. Credit standards for lending to enterprises remained virtually unchanged.

Loans* by German banks to the domestic non-financial private sector

Year-on-year percentage growth rates; growth contributions in percentage points; end-of-quarter data; seasonally adjusted



* Adjusted for loan sales and securitisation. **1** Non-financial corporations and quasi-corporations.
Deutsche Bundesbank

Banks' profitability dented by APP and negative deposit facility rate

The BLS conducted in October contained additional questions on the impact of the Eurosystem's asset purchases and the consequences for credit business of the negative interest rate on the Eurosystem's deposit facility. Once again, German banks reported that the pur-

Implementation of the EU Mortgage Credit Directive in Germany as reflected in the Bank Lending Survey, balance sheet statistics and interest rate statistics

On 21 March 2016, the Mortgage Credit Directive (MCD) of the European Union[1] was transposed into German law, primarily through amendments and additions to the German Civil Code *(Bürgerliches Gesetzbuch),* the Introductory Act to the Civil Code *(Einführungsgesetz zum Bürgerlichen Gesetzbuch)* and the German Banking Act *(Kreditwesengesetz).* The main objectives of the Directive are to improve consumer protection, to create a transparent and efficient single European market for loans for house purchase, and to contribute to sustainable lending and borrowing.

To this end, it harmonises *inter alia* the credit assessment process as well as the provisions on consultancy services in lending and brokering, and, in this context, imposes more comprehensive information and documentation requirements on credit institutions. Specifically, banks are obliged to assess creditworthiness in detail on the basis of information on income and spending as well as other financial and economic circumstances of the borrower rather than mainly on a prospective increase in the value of the residential property. The lender is allowed to sign the loan agreement only if the assessment indicates that the borrower is likely to fulfil its contractual obligations.[2] If the lender contravenes these terms, the borrower may terminate the agreement at any time without notice – without the bank being able to demand prepayment compensation – or it may insist on a lowering of the loan rate to the market interest rate.[3] This means that contraventions not only have regulatory consequences, but also have civil law implications which can be enforced directly by the borrowers concerned.

Against this backdrop, there has been a public debate in Germany over the past few months on whether the MCD has placed a strain on German banks' lending. Indeed, the cited amendments to the legal framework are reflected in the responses provided by the sample of German banks surveyed as part of the Bank Lending Survey (BLS) in the second quarter of 2016. Although the majority of the respondent banks left their credit standards for loans for house purchase unchanged, a considerable percentage of banks reported having tightened their credit standards somewhat, while some institutions indicated tighter credit terms and conditions and a greater percentage of rejected loan applications. In the third quarter of 2016, however, credit standards were tightened somewhat only in a small number of individual cases.

The monthly balance sheet statistics reveal no abnormalities in aggregate credit growth. Net inflows to loans for house purchase have, on balance, been moving sideways in recent quarters at the level attained in the third quarter of 2015 (see the upper chart on page 37), and the annual growth rate, which went up to 3.5% in the course of 2015, accelerated even further in the second quarter and has since remained at values of around 3¾%. However, disaggregated analysis points to shifts in the dynamics of growth across the various categories of banks. For example, in the case of savings banks and credit cooperatives, which traditionally possess the largest market shares in this credit segment, there was a slowing of the previously rapid pace of growth. In the aggregate, however, this was offset by an increase in lending, above all on the part of the big banks and regional banks (see the upper chart on page 37). Despite the slower pace overall, growth in loans for house

1 Directive 2014/17/EU of the European Parliament and of the Council of 4 February 2014 on credit agreements for consumers relating to residential immovable property and amending Directives 2008/48/EC and 2013/36/EU and Regulation (EU) No 1093/2010, OJ L 60/34 of 28 February 2014.
2 The relevant provisions may be found in sections 505a to 505c of the German Civil Code and section 18a of the German Banking Act.
3 See section 505d of the German Civil Code.

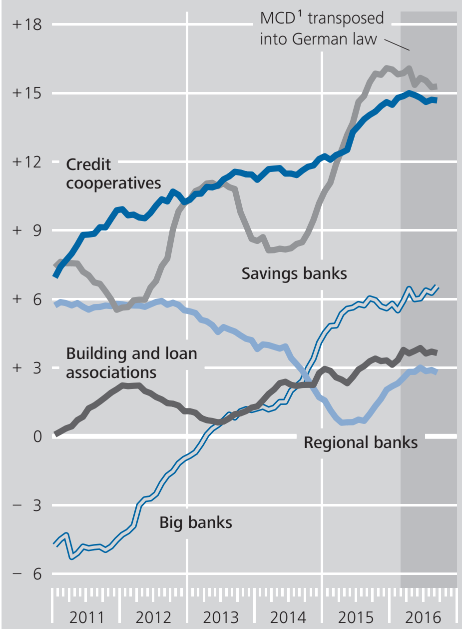
purchase issued by the savings banks and credit cooperatives remains relatively high at the current end at 4.4%, or 5.8% compared with the previous year.

The transaction-related changes in the monthly balance sheet statistics considered here are comprised of new lending and redemptions combined. The balance sheet statistics are a suitable measure of the (net) funding provided by banks, but not of their (gross) new lending. The latter cannot be calculated from the balance sheet figures, since no information on redemptions is available. Data on new lending volumes are collected, however, as part of the MFI interest rate statistics and this information is used to calculate weighted interest rates.[4] Although these data include prolongations of existing loans, too, as these may generally also be accompanied by interest rate adjustments, renegotiated loans have been reported separately in the interest rate statistics since December 2014, which means that the "real" new business volumes – ie first-time new commitments – can be calculated. Thus, data on genuine new business is available for the assessment of new lending following the implementation of the Mortgage Credit Directive, even though the small number of data points since December 2014 still makes them difficult to place in context.

These data, too, do not provide any indications of a slowdown in lending for house purchase in connection with the implementation of the MCD (see the lower adjacent chart).

Loans to households for house purchase, by selected categories of banks (balance sheet statistics)

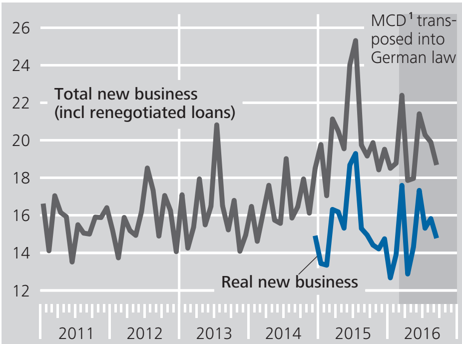
€ billion, change over the last 12 months



1 Mortgage Credit Directive of the European Union.
Deutsche Bundesbank

Loans to households for house purchase: volume of new business (interest rate statistics)

Monthly changes in € billion



1 Mortgage Credit Directive of the European Union.
Deutsche Bundesbank

The current volumes of new business are at the same level as the average monthly credit flows of the recent past; this is true of both new business volumes adjusted for prolongations – "real" new business – and the figures for new business, which include renegotiated loans.

4 In contrast to the balance sheet statistics, the interest rate statistics are based on a representative sample rather than a complete survey, which is then extrapolated to the banking system as a whole. For more information on the sampling method, see Deutsche Bundesbank, Extended MFI interest rate statistics: methodology and first results, Monthly Report, June 2011, pp 45-57. Both sets of statistics can provide valuable insights into the dynamics of the mortgage market. It should be noted, however, that only the absolute monthly new business volumes shown in the lower adjacent chart should be interpreted for the interest rate statistics. First, in contrast to the balance sheet statistics, no index series are available for calculating growth rates. Second, estimating the longer-term trend using cumulative 12-month flows raises problems because their movements over the past few months were heavily driven by baseline effects.

chase programme had improved their liquidity position and their funding conditions. The increase in liquidity in the past six months, which was used *inter alia* for lending, was chiefly the outcome of bank customers' portfolio shifts towards bank deposits rather than the banks' own sales of securities. However, the German banks taking part in the survey also reported on a broad front that the purchase programme was exerting pressure on their net interest margins and thus denting their profitability. The negative interest rate on the deposit facility was a second key factor in banks' shrinking net interest income over the past six months. Owing to the negative deposit rate, both lending rates and margins in all surveyed business lines fell, while the effects on the credit volume were limited.