Risk report

Risk policy and strategy

The basic principles underlying the Deka Group's risk policy and strategy remain largely unchanged from those described in the Group Management Report for 2018. In order to achieve its commercial objectives, the Deka Group accepts certain risks in line with strategic requirements. These risks are limited by a comprehensive risk management system that covers all types of risk and all business divisions, sales and corporate centres in order to ensure the success of the Deka Group as a business. The framework for business and risk management is provided by the general concept of risk appetite (Risk Appetite Framework – RAF), which forms the main basis for assessing the adequacy of internal capital and liquidity (Internal Capital Adequacy Assessment Process (ICAAP)/Internal Liquidity Adequacy Assessment Process (ILAAP)) and is an integral part of the Deka Group's strategy system.

Risk management and risk control, both in organisational terms and in relation to risk modelling, will continue to be reviewed and updated as necessary, taking account of regulatory requirements.

In November 2018, the European Central Bank (ECB) published two guides setting out its expectations on how to ensure capital adequacy (ICAAP) and liquidity adequacy (ILAAP) in internal bank processes. In particular, the requirements for a normative perspective within ICAAP and ILAAP led to a corresponding adjustment to the RAF in the first quarter of 2019. In this context, methodological changes were also made to the risk-bearing capacity concept for the economic perspective of the ICAAP. Given the requirement to apply a going concern approach on the capital side, the definition of internal capital and, in connection with this, the management concept were adjusted. Subordinated capital components are generally no longer included in internal capital, resulting in increased utilisation of risk capacity. To ensure risk-bearing capacity in the current situation, the Deka Group monitors risk capacity, as a formal total risk limit, risk appetite, which is relevant primarily for risk management purposes, and capital allocation; the previous control parameter of maximum risk appetite is no longer used. As a result of the adjustments made to the management concept for macroeconomic stress testing, the Deka Group now takes an even closer look at the impact of the (stress) scenarios, their probability of occurrence and lead time, as well as examining the possible mitigation measures available if necessary. The capital requirement depends on the results of this assessment.

In the first half of 2019, the Deka Group continued to implement the extended requirements set out in the Minimum Requirements for Risk Management (MaRisk), which provide the regulatory basis for risk management at German level. This particularly involved the requirements governing architecture and the quality management of risk data, as well as the reporting system based on this data. The establishment of a central data management unit for risk data marked another important milestone in line implementation during the reporting period. This unit is supported by a network of local data managers, who have now been appointed in all major core areas and work together with central data management towards ensuring the ongoing review and thus continuous improvement of the quality of risk data.

With regard to the management of non-financial risks, further organisational changes took effect on 1 August 2019. The central functions for managing selected non-financial risks are being consolidated in an independent department that reports directly to the Board of Management, while the overarching controlling of operational risks have been transferred from the Compliance corporate centre back to the Risk Control corporate centre.

The potential economic impact of changes to the Credit Risk Standardised Approach (CRSA) and the Internal Ratings Based Approach (IRBA) that are currently planned as part of the finalisation of Basel III (Basel IV) continues to be monitored. The same applies with regard to the Fundamental Review of the Trading Book (FRTB), the Guidelines on identification and management of step-in risk and the scheduled introduction of the new Standardised Measurement Approach (SMA) for calculating operational risk capital, both of which could also affect Pillar II of the Basel framework under certain circumstances.

With regard to the calculation of counterparty risk, the changes to the presentation of counterparty risk and money market lending, along with the methodological adjustment to bring the determination of loss ratios into line with the IFRS 9 approach, had the overall effect of mitigating total risk. Methodological changes were also made to the calculation of business risk, although these slightly increased the risk at Group level. Overall, the extended deduction for risks resulting from pension obligations to include risks from unfunded pension obligations and similar obligations, as well as the related provisions, had only a minor impact on internal capital.

Overall risk position for the first half of 2019

See also: Financial position of the Deka Group: pages 24, ff

The risk position presented in the risk report relates to the Deka Group's risk position overall, and therefore corresponds to the definition used as the basis for presentation of the Deka Group's business development and profit performance in the economic report. With regard to capital resources, the report focuses on the risks from the economic perspective that are relevant from the point of view of the Group. Details on, and key figures for, the normative perspective can be found in the economic report in the section entitled "Financial position of the Deka Group".

Utilisation of risk appetite remained at non-critical levels throughout the six-month reporting period. The Deka Group also maintained ample liquidity throughout.

During the first half of the year, monetary policy focused increasingly on economic risks. In addition to the trade conflict between the US and China, the fiscal policy dispute between the Italian government and the European Commission was one of the main risk drivers. In light of these risks and the relevant communication from the central banks, the market expects the monetary policy reins to be loosened over the next few months. In this environment, Bund yields fell to new lows. Lower interest rates and higher volatility are reflected in the total risk.

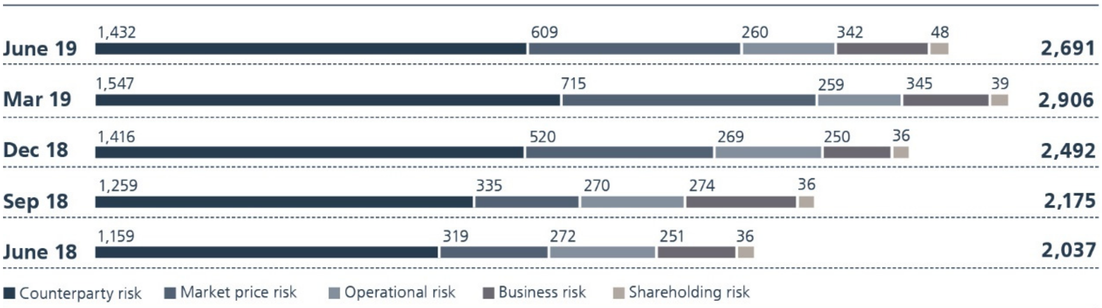
The Deka Group's total risk (value-at-risk – VaR; confidence level 99.9%; holding period one year) stood at €2,691m at the end of the first half of the year. As such, it showed a moderate increase relative to the position at the end of 2018 (€2,492m). This was due to increases in counterparty, market price, business and shareholding risk on the one hand, and to a reduction in operational risk on the other.

The increased total risk was accompanied by a marked drop in risk capacity to €4,597m (year-end 2018: €5,920m), which was attributable primarily to the conceptional removal of subordinated capital components. As a result, the utilisation of risk capacity was up considerably as against the end of 2018 (42.1%) to 58.5%, although it remains at a non-critical level.

Utilisation of allocated risk capital was non-critical both at Deka Group level and in all business divisions. Utilisation of the risk appetite of €3,750m, which was slightly higher than at the end of 2018 (€3,700m) and was previously calculated disregarding subordinated capital, came to 71.7% as at 30 June 2019 (year-end 2018: 67.4%).

In line with its impact for the current situation, the methodological change has also led to a significant increase in the utilisation of risk capacity in the stress scenarios for all risk types. In light of the in-depth analysis of the results of the stress scenarios, their probability of occurrence and lead time, as well as the possible mitigation measures available if necessary, no need for action was identified at the end of the first half of the year. In all considered scenarios, risk capacity utilisation during the reporting period and at 30 June 2019 was below the 100% threshold based on this procedure.

Change in Deka Group risk over the course of the year *in €m (Fig. 14)*



Counterparty risk

Current risk situation

Counterparty risk, as determined on the basis of the credit value at risk (CVaR) with a confidence level of 99.9% and a holding period of one year, rose only slightly in the first half of 2019 to €1,432m (year-end 2018: €1,416m). Risk capital allocated to counterparty risk stood at €1,925m (year-end 2018: €1,905m) and was 74.4% utilised (year-end 2018: 74.3%). The level of risk capacity utilisation therefore remained non-critical.

The development of risk was attributable to opposing effects. The increase in risk resulting from changes in positions in the Capital Markets business division and new financing transactions in the Financing business division was partially offset by methodological adjustments (presentation of counterparty risk and money market lending, measures to bring the calculation of loss ratios into line with the IFRS 9 approach).

The risk position of the cluster portfolio was assessed using an expected shortfall redistribution. The result was a moderate drop in absolute terms compared with the end of 2018. The relative share of the cluster portfolio in the overall portfolio also decreased slightly. Risk concentration remained in line with the Deka Group's credit risk strategy.

Gross loan volume increased slightly by €1.1bn from the end of 2018 (€151.3bn) to reach €152.4bn. A significant portion of the increase related to the public sector Germany risk segment, which was affected in particular by more substantial holdings of bonds issued by the German federal states and municipal loans. The gross loan volume also increased in the corporates risk segment, in particular due to higher volumes of bond and equity transactions. In the lending business, volume rose due to a variety of loans for infrastructure, transport, export and real estate, the vast majority of which were secured. The ship portfolio's share of gross loan volume rose, among other things due to new business, to 0.9% (year-end 2018: 0.7%). As the market environment remains difficult, the ship financing portfolio is still being closely followed and monitored on an ongoing basis. In the funds risk segment, the increase in the gross loan volume was characterised primarily by a larger volume of partly secured fund units. Meanwhile, the significant decline in volume in the financial institutions risk segment had a risk mitigating effect, mainly due to the decline in repo lending transactions.

Gross loan volume *in €m (Fig. 15)*

	30 Jun 2019	31 Dec 2018
Financial institutions	81,946	84,522
Savings banks	7,678	7,358
Corporates	13,511	12,793
Public sector International	3,002	2,726
Public sector Germany	8,771	7,525
Public infrastructure	1,024	987
Transport and export finance	6,332	6,192
Energy and utility infrastructure	2,536	2,052
Property risks	10,276	10,039
Retail portfolio	570	733
Funds (transactions and units)	16,731	16,362
Total	**152,376**	**151,288**

[1] As a result of a refined calculation of over-collateralisation, in the first half of the year, there was a shift between the risk segments. The figures as at 31 December 2018 were adjusted for reasons of comparison.

As a result of the above effects, net loan volume rose by €3.1bn to €74.7bn as at 30 June 2019, thus exhibiting a substantially larger rise than gross volume. This was due in particular to the collateralisation of repo lending transactions, the decline in which is only reflected to a limited extent in the net loan volume. The net loan volume increased in the financial institutions risk segment and to a lesser extent in the funds risk segment.

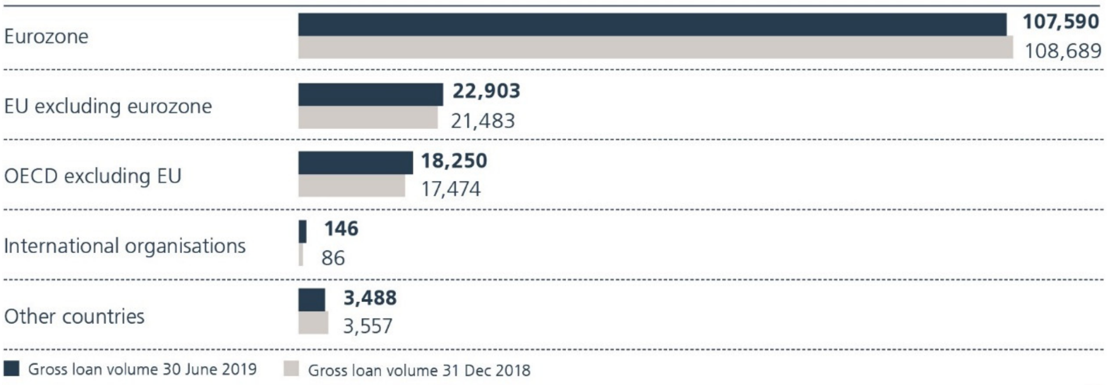
Net loan volume *in €m (Fig. 16)*

	30 Jun 2019	31 Dec 2018
Financial institutions	34,236	33,556
Savings banks	7,448	7,064
Corporates	7,557	6,895
Public sector International	1,283	1,492
Public sector Germany	7,858	7,092
Public infrastructure	1,024	984
Transport and export finance	682	820
Energy and utility infrastructure	2,536	2,052
Property risks	2,146	2,046
Retail portfolio	570	733
Funds (transactions and units)	9,323	8,811
Total	**74,663**	**71,545**

[1] As a result of a refined calculation of over-collateralisation, in the first half of the year, there was a shift between the risk segments. The figures as at 31 December 2018 were adjusted for reasons of comparison.

Due to an increase in lending transactions with international counterparties in the United Kingdom, the gross loan volume in EU countries outside the eurozone rose proportionately from 14.2% to 15.0%. The same applies to the OECD states outside the European Union: here, the share of gross loan volume rose from 11.6% to 12.0% due to the expansion of business with counterparties in Canada and the US. By contrast, the share attributable to the eurozone fell by 1.2 percentage points to 70.6% in the first half of 2019, mainly due to the lower volume of repo business with the central counterparty Eurex.

Gross loan volume by region *in €m (Fig. 17)*



The gross loan volume attributable to Germany fell by €2.3bn to €65.2bn. The gross loan volume attributable to borrowers in Italy and Spain increased moderately to €3.8bn from €3.6bn at the end of 2018. The increase was mainly related to repo transactions with Spanish counterparties.

Gross loan volume – regional concentrations *in €m (Fig. 18)*

	30 Jun 2019	Percentage of Gross loan volume
Germany	65,248	43%
Luxembourg	10,254	7%
France	17,178	11%
Belgium	6,479	4%
Netherlands	1,872	1%
Great Britain	21,655	14%
Spain	2,642	2%
Italy	1,178	1%
Other	25,870	17%
Total	**152,376**	**100%**

The gross loan volume remained focused primarily on the short-term segment. The proportion of transactions with a time to maturity of less than one year was 42.8% at the end of the first half of 2019 (year-end 2018: 45.3%). The proportion of maturities longer than ten years was 5.6%, compared with 4.4% at 31 December 2018. The average legal residual term of gross lending was 3.1 years (year-end 2018: 2.6 years).

The level of risk concentration in the loan portfolio rose slightly during the first half of 2019. As at 30 June, 18.6% (year-end 2018: 18.3%) of total gross loan volume was attributable to borrower units with a gross limit of at least €2.5bn or an overall net limit of at least €1.0bn (counterparty clusters). The number of counterparty clusters remained unchanged at 26. Of the gross loan volume attributable to the cluster portfolio, 26.5% related to counterparties in the German public sector, the savings banks and other alliance partners. A total of 15.2% of net loan volume related to counterparty clusters (year-end 2018: 15.9%).

As was the case at 31 December 2018, the amount of net loan volume related to shadow banking entities as at 30 June 2019 was less than 3% under the principal approach (limit utilisation 90%) and less than 1% under the fallback approach (limit utilisation 48%). The utilisation figures are considered acceptable, especially given that the shadow banking entities have an average rating of A on the DSGV master scale.

The average rating for the gross loan volume improved over the reporting period by one notch to a rating of 2 on the DSGV master scale. The average probability of default dropped to 14 bps (year-end 2018: 15 bps), partly due to the improved rating of predominantly ECA-backed export financing and individual ship financing arrangements. The average rating for the net loan volume remained unchanged at A– with a slightly improved average probability of default of 8 bps (year-end 2018: 9 bps).

Net loan volume by risk segment and rating *in €m (Fig. 19)*

	Average PD in bps	Average rating 30 Jun 2019	30 Jun 2019	Average PD in bps	Average rating 31 Dec 2018	31 Dec 2018
Financial institutions	5	A+	34,236	5	A+	33,556
Savings banks	1	AAA	7,448	1	AAA	7,064
Corporates	14	2	7,557	12	2	6,895
Public sector International	8	A–	1,283	8	A	1,492
Public sector Germany	1	AAA	7,858	1	AAA	7,092
Public infrastructure	14	2	1,024	16	3	984
Transport and export finance	126	8	682	176	9	820
Energy and utility infrastructure	50	6	2,536	55	6	2,052
Property risks	9	A–	2,146	9	A–	2,046
Retail portfolio	3	AA	570	3	AA	733
Funds (transactions and units)	10	A–	9,323	10	A–	8,811
Comprehensive income	**8**	**A–**	**74,663**	**9**	**A–**	**71,545**

[1] As a result of a refined calculation of over-collateralisation, in the first half of the year, there was a shift between the risk segments. The figures as at 31 December 2018 were adjusted for reasons of comparison.

The Bank continues to achieve its target rating of investment grade (5 or better) for the portfolio as a whole without difficulty. 91.0% of net loan volume remained in the same grouping (determined by rating class) as at the end of 2018.

Market price risk

Current risk situation

Market price risk at Deka Group level (measured using VaR with a confidence level of 99.9% and a holding period of one year) increased significantly compared with the position as at the end of 2018 (€520m) to €609m. The increase was mainly attributable to a higher volume of guarantee products in connection with lower interest rates and increased volatility. The adjustment to the yield curve used to determine the market price risk of the guarantees partly compensated for the increase in risk due to the need for parameter adjustments as a result of market factors.

Utilisation of the allocated risk capital for market price risk stood at €1,020m (year-end 2018: €1,035m). This represents a moderate utilisation level of 59.7%.

Market price risk for the Deka Group (excluding guarantees) as at 30 June 2019 was €51.3m (year-end 2018: €50.6m), measured as the VaR with a confidence level of 99.0% and a holding period of ten days. Utilisation of the operational management limit at Deka Group level (excluding guarantees) stood at €69m. This represented a utilisation level of 74% and was therefore non-critical.

Deka Group value-at-risk excluding guarantee products[1] (confidence level 99%, holding period ten days) *in €m (Fig. 20)*

	30 Jun 2019						
Category	**Asset Management Securities business division**	**Asset Management Real Estate business division**	**Asset Management Services business division**	**Capital Markets business division**	**Treasury**	**Deka Group excluding guarantees**	Change in risk vs 31 Dec 2018
Interest rate risk	0.0	0.2	3.2	43.3	18.3	51.8	0.6%
Interest rate (general)	0.0	0.2	3.2	4.3	15.2	17.5	14.3%
Spread	0.0	0.0	1.7	43.5	11.9	53.2	9.8%
Share price risk	0.2	0.5	0.3	3.9	0.0	3.9	−25.6%
Currency risk	0.0	0.0	0.0	1.1	2.0	2.6	−23.1%
Total risk	**0.2**	**0.5**	**3.2**	**42.6**	**18.4**	**51.3**	1.4%

[1] Risk ratios for interest rate risk and total risk taking account of diversification. Includes issue-specific credit risk spread.

The VaR for general interest rate risk (excluding risks on guarantee products) increased from €15.0m at year-end 2018 to €17.5m. This rise was mainly due to an increase in exposure to cross-currency swaps in the Treasury corporate centre, which was caused by a sustained USD refinancing requirement due to the foreign currency lending business.

In the first six months of 2019, the VaR for credit spread risk rose to €53.2m (year-end 2018: €48.0m). This increase was due primarily to an increase in bond positions. In line with the business model, risk concentration in terms of spread risk was mainly attributable to German and US bonds issued by the public sector, financial institutions and corporates.

Share price risk decreased compared with year-end 2018 (€4.9m) to €3.9m and thus remained less significant.

Currency risk, which resulted mostly from positions in British pounds as at the reporting date, declined to a VaR of €2.6m (year-end 2018: €3.2m).

Liquidity risk

Current risk situation

The Deka Group continued to have ample liquidity during the first half of 2019. The liquidity balances in all relevant maturity bands of the "combined stress scenario" funding matrix for periods of up to 20 years were positive. This was also the case for the alternative stress scenarios examined and under the going concern approach. Limits were complied with throughout the reporting period.

As at 30 June 2019, the accumulated liquidity balance of the Deka Group's "combined stress scenario" funding matrix in the short-term range (up to one week) stood at €8.3bn (year-end 2018: €8.7bn). In the maturity band of up to one month, the liquidity surplus totalled €8.9bn (year-end 2018: €11.4bn), and in the medium range (three months) it was €15.6bn (year-end 2018: €15.2bn).

As in previous years, a substantial part of the Group's liquidity generation and provision was attributable to business with savings banks and funds. In relation to the net cash flows of approx. €5.0bn on day 1, the Deka Group has a high liquidity potential (around €10.6bn) that is readily convertible at short notice. The Group has access to a large portfolio of liquid securities, which are eligible as collateral for central bank borrowings, as well as to available surplus cover in the cover pool and corresponding repo transactions. The strict requirements concerning the liquidity potential ensure that the securities used for this purpose can generate liquidity even in a stressed market environment.

Combined stress scenario funding matrix of the Deka Group as at 30 June 2019 *in €m (Fig. 21)*

	D1	>D1–1M	>1M–12M	>12M–5Y	>5Y–20Y	>20Y
Liquidity potential (accumulated)	10,558	13,009	3,153	–136	171	216
Net cash flows from derivatives (accumulated)[1]	–395	–582	1,978	833	349	307
Net cash flows from other products (accumulated)	–4,574	–3,550	6,863	6,364	2,372	–1,112
Liquidity balance (accumulated)	**5,589**	**8,877**	**11,993**	**7,061**	**2,891**	**–589**
For information purposes:						
Net cash flows from derivatives by legal maturity (accumulated) [1]	–395	–547	–723	–1,835	–2,188	307
Net cash flows from other products by legal maturity (accumulated)	–3,620	–10,685	–21,610	–7,775	–3,588	–2,228
Net cash flows by legal maturity (accumulated)	**–4,015**	**–11,232**	**–22,333**	**–9,610**	**–5,776**	**–1,921**

[1] Including lending substitute transactions and issued CLNs

As at 30 June 2019, 63.9% (year-end 2018: 64.0%) of total refinancing related to repo transactions, overnight and time deposits and other money market products. The remainder of the refinancing concerned capital market products, primarily with longer maturity profiles. The refinancing profile for lending business was well balanced, given the maturity structure. Money market refinancing remained broadly diversified across a range of investor groups. Most of the investors in money market refinancing are financial service providers such as clearing houses, stock exchanges and funds, or large banks and savings banks. Savings banks accounted for 10.9% of money market refinancing, while funds represented 22.7%.

The regulatory requirements in relation to the Liquidity Coverage Ratio (LCR) were met throughout the period under review. Compared with 31 December 2018, the LCR ratio at Deka Group level fell as a result of a decline in eligible high-quality liquid assets combined with an increase in net cash outflows at the same time, and stood at 137.9% at the midpoint of 2019 (year-end 2018: 149.8%). The average during the first half of 2019 was 141.8% (average for the first half of 2018: 145.2%). The LCR fluctuated within a range from 137.9% to 147.7%. It was thus always substantially above the minimum limit of 100.0% applicable in 2019.

Operational risk

Current risk situation

The VaR for operational risk (confidence level of 99.9%, holding period of one year) fell moderately from €269m at year-end 2018 to €260m. This was due to reduced risks for various loss scenarios. Risk capital allocated to operational risk stood at €340m (year-end 2018: €335m). Utilisation of this amount was 76.3%. Utilisation thus remains at a non-critical level.

The OR loss potential identified in the Group-wide risk inventory remained unchanged compared with the end of 2018 at €56m. Risk-mitigating and risk-increasing effects resulting from updates to the risk indicators included in the evaluation process offset each other. In contrast to VaR, which is an upper limit for losses with a specific probability that the limit will not be exceeded, loss potential is an expected value that results from the estimated frequency of occurrence and scale of losses of all OR scenarios in the Deka Group.

Based on the Federal Ministry of Finance (BMF) circular on the tax treatment of cum/cum transactions of 17 July 2017, tax risks exist in connection with relief from withholding tax (*Kapitalertragsteuer*) on share transactions made around the dividend record date in the years 2013 to 2015. All matters are reported in the consolidated financial statements as at 30 June 2019 in accordance with DekaBank's interpretation of the relevant tax regulations and accounting standards.

In addition, DekaBank has conducted voluntary investigations to ascertain whether its involvement enabled third parties to conduct share trades around the dividend record date and make use of abusive tax structures or whether it was otherwise involved in such structures. No evidence to this effect has emerged from these investigations. Based on the findings available to it, DekaBank therefore considers it unlikely that the tax authority will be able to make a claim in relation to these matters.

Business risk

The VaR of business risk was €342m as at 30 June 2019, significantly higher than the level of €250m at the end of the previous year. The increase in risk was mainly due to increased volatility in all business divisions. The increased risk capital allocation of €405m (year-end 2018: €365m) was 84.5% utilised.

Reputational risk

Because of the way they affect business, reputational risks are seen as a component of, or as factors that exacerbate, other types of risk. Existing types of risk can be both a cause and an effect of reputational damage. The effects of reputational damage relate primarily to business risk and liquidity risk.

Further risks

Shareholding risk

The VaR of shareholding risk was €48m at 30 June 2019, up significantly on the level of €36m at the previous year-end. The reason for the increase in risk was the significant increase in the IFRS carrying value of an equity investment as a result of the current fair value measurement in accordance with IFRS 9. The risk capital allocated to shareholding risks remained unchanged at €60m, with utilisation of 80.3%.