INDEX – Triodos Bank – Annual Report 2019 – Pillar 3 disclosures

About the Pillar 3 report

This Pillar 3 Report contains most of the quantitative information as required in the Capital Requirement Regulation. The remainder can be found in the Annual Accounts section of Triodos Bank's annual report.

A reference overview for all requirements, quantitative and qualitative, is available in the "Appendix - Reference Overview Disclosures Related to the Capital Requirement Regulation" in the Annual report.

There are no differences between accounting and regulatory scopes of consolidation.

Triodos Bank does not omit the disclosure of any required information for proprietary or confidentiality reasons.

Materiality boundaries are used in the geographical and sector reports, where only the largest countries and sectors are reported.

Small differences are possible due to rounding.

Key prudential regulatory metrics

amounts in thousands of EUR	2019	2018[1)]	2017
Available capital (amounts)			
Common Equity Tier 1 (CET1)	1,085,455	1,003,036	937,068
Tier 1	1,085,455	1,003,036	937,068
Total capital	1,085,455	1,003,036	937,068
Risk-weighted assets (amounts)			
Total risk-weighted assets (RWA)	6,067,038	5,746,208	4,880,465
Risk-based capital ratio's as a percentage of RWA			
Common Equity Tier 1 ratio	17.9%	17.5%	19.2%
Tier 1 ratio	17.9%	17.5%	19.2%
Total capital ratio	17.9%	17.5%	19.2%
Additional CET1 buffer requirements as a percentage op RWA			
Capital conservation buffer requirement (2,5% from 2019)	2.5%	1.9%	1.3%
Countercyclical buffer requirement	0.190448%	0.121152%	0.000036%
Total of bank CET1 specific buffer requirements	2.7%	2.0%	1.3%
CET1 available after meeting the bank's minimum capital requirements	9.9%	9.5%	11.2%
Leverage ratio			
Total leverage ratio exposure measure	12,737,990	11,670,980	10,474,026
Leverage ratio (%)	8.5%	8.6%	8.9%
Liquidity Coverage Ratio			
Total High Quality Liquid Assets	2,786,116	2,531,410	2,162,159
Total net cash outflow	1,186,149	1,108,847	962,502
Liquidity Coverage Ratio (%)	235%	228%	225%
Net Stable Funding Ratio			
Total available stable funding	10,030,898	8,978,436	8,213,283
Total required stable funding	7,079,877	6,162,707	5,736,168
Net Stable Funding Ratio (%)	142%	146%	143%

[1)] Prior year amounts were subject to accounting principle changes. For explanations see the general accounting principles in the annual report 2019 of Triodos Bank N.V..

Triodos Bank – Annual Report 2019 – Pillar 3 disclosures
Risk management
in thousands of EUR

Purpose and organisation
Objective

The aim of Triodos Bank's risk management activities is to ensure the long-term resilience of the business. These activities create an environment in which Triodos Bank can pursue its mission to its fullest potential in a safe way. Risk management provides the structural means to identify, prioritise and manage the risks inherent in its business activities. The intention is to embed risk management in such a way that it fits the complexity and size of the organisation and is designed to also allow for future growth. In order to ensure that such an environment can exist and prosper, a Risk Governance Framework has been put in place which underpins the risk processes.

The Three Lines of Defense

Triodos Bank manages its business using a Three Lines of Defense Model. This approach ensures that each coworker is fully aware of the responsibilities in managing risks, irrespective of whether their role is in a commercial, policy-making or control function. The model ensures that responsibilities are properly aligned and makes clear that all co-workers have a role to play in managing risks.

First line functions are Triodos Bank's banking entities, business units and departments, which are responsible for managing the risks of their operations. Second line functions (separated from the first line function) are located in the bank's banking entities and business units, and ensure that risks are appropriately identified and managed.
Second line functions are also established at group level. They create and maintain the corporate Risk Governance Framework, the policies and procedures which provide the boundaries for the local and consolidated business activities. Moverover, they monitor risk management of the first line.

The third line of defense is the Internal Audit function providing independent and objective assurance of Triodos Bank's corporate governance, internal controls, compliance and risk management systems. This includes the effectiveness and efficiency of the internal controls in the first and second lines of defense.

Risk organisation

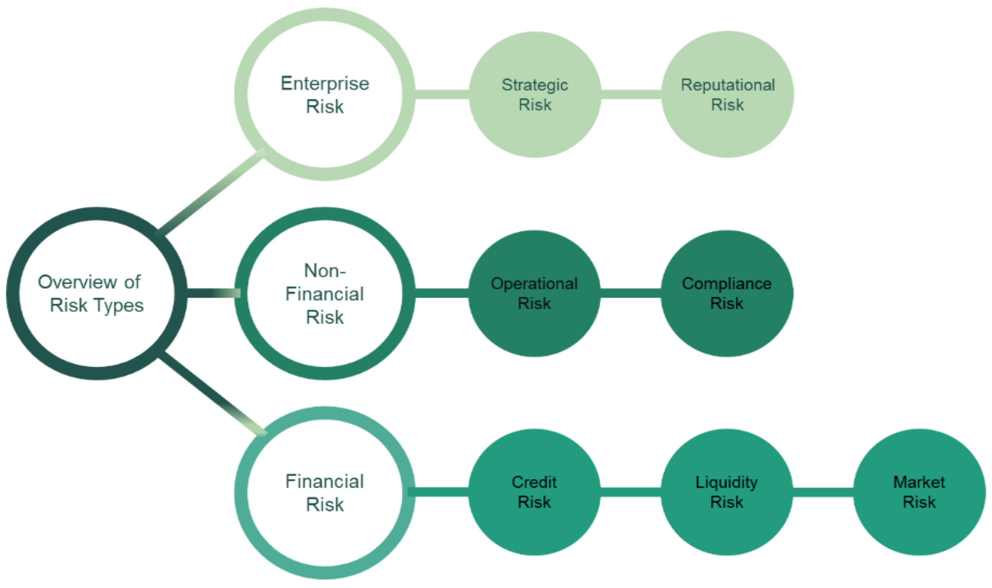
In light of Triodos Bank's growth, the impact of all new regulations, and the increased attention of supervisory authorities, Triodos Bank has made an important step up in its risk control organisation during the past years. In light with the increased importance of compliance it was decided to split the risk and compliance responsibilty and appoint a Director Compliance. The Director Risk and the Director Compliance together take responsibility for all the second line risk management and compliance activities and report directly to the Executive Board. These second line activities are supervised by the Audit and Risk Committee of the Supervisory Board.

The Director Risk and the Director Compliance provide relevant independent information, analyses and expert judgement on risk exposures, and advise on proposals and risk decisions made by the Executive Board and business or support units as to whether they are consistent with the institution's risk appetite. The Director Risk and the Director Compliance recommend improvements to the risk management framework and options to remedy breaches of risk policies, procedures and limits.

The structure of the risk organisation meets banking industry standards and covers all relevant risks for Triodos Bank within the three following risk categories: Enterprise Risks, Financial Risks and Non-Financial Risks. Each risk type covers a number of risk categories (see diagram below).

Risk culture

The essence of our mission and business model supports the mitigation of our risks, allowing Triodos Bank to develop a resilient business that is able to play its part in a more diverse, sustainable and transparent banking sector. In addition, our internal governance structure provides a sound basis to enable an effective risk culture; the three lines of defense model in particular ensures a dovetailing of responsibilities across the organisation in terms of Business, Risk and Internal Audit and ensures each group of professionals understands the boundaries of their responsibilities and how their position fits into the organisation's internal control and risk management system. This also relates to the segregation of duties aspect, which is an important element of the internal governance and organisation structure. The Executive Board performs its 'oversight' role in general in setting the 'Tone at the Top' and by playing an important, transparent role in the key elements of the internal control and risk management system (such as setting the risk appetite, strategy, targets, values and company culture, approval of risk and compliance frameworks, overall policies, and approving internal control system over financial reporting).



The Executive Board (partly) delegated decision-making authority to the following risk committees at a central level:

• For Financial Risk, the Central Credit Committee has authority to take decisions on credit risks, both on an individual debtor level and on a credit portfolio level; the Asset & Liability Committee has authority to decide on market risks and liquidity risk;

• For Non-financial Risk, the Non-Financial Risk Committee has authority to decide on operational and compliance risk matters. The Product Approval Committee has the authority to approve new products and review existing products; and

• For Enterprise Risk, the Enterprise Risk Committee has authority to decide on strategic and reputational risk issues.

Each committee is chaired by an Executive Board member or the Director Banking to ensure consistent decision making on material risks within Triodos Bank's wider strategy.

Banking entities also have a decision-making committee for their lending activities: the Local Credit Committee. This local credit committee decides on loans under the responsibility of the local Managing Director within delegated credit approval limits. This committee also monitors the credit risks of the local credit portfolio and monitors alignment with relevant credit risk policies.

The Supervisory Board's Audit and Risk Committee supervises the activities of the Executive Board with respect to the operation and adequacy of internal risk management and control systems. The Director Risk and the Director Compliance report to the Executive Board and have an escalation line to the Chair of the Audit and Risk Committee (that supports the independency of the Risk Control Function as a countervailing power to the business).

Enterprise Risk

The Enterprise Risk discipline synthesises the risks of all risk areas and performs analyses to determine at a strategic level which larger trends can potentially influence Triodos Bank's risk profile. Triodos Bank manages Enterprise Risk through a risk management cycle: performing strategic risk assessments, determining the risk appetite, assessing capital and liquidity requirements, and monitoring the risk profile through periodic enterprise risk management reporting.

Strategic Risk

Strategic Risks are those that potentially have the most impact on an organisation's ability to execute its strategies and achieve its business objectives. Therefore, Strategic Risk Assessments are performed at Executive Board level for Triodos Bank as a whole and at business unit level for each business unit periodically.

The external landscape changes, in particular the low interest rate environment, climate change, energy transition, regulatory requirements, the European political landscape and technological developments. The challenges that arise from these changes will continue to influence Triodos Bank.

Triodos Bank considers its banking model to have a moderate risk profile. While on the one hand the bank's mission is to support the real economy and society with basic and straightforward banking products, the risk appetite reflects the recognition that the relatively fast-changing external environment requires us to adapt.

Strategic risks need to be carefully managed to realise integrated financial and mission-driven objectives.
Corporate and local risk sensitivities are used to determine scenarios that are used to test Triodos Bank's capital, liquidity, profitability and operational stability during the year. Triodos Bank has identified the following strategic risks to be taken into account at corporate level:

• Political and social risk: political uncertainty in the countries we operate in and at EU level and public discontent which lead to more volatility;

• Economic risk: increasing volatility as a result of political uncertainty, decreasing business confidence which leads to lower investment levels, intervention of central banks to stimulate economic growth which may continue longer than expected with lower interest rates as a result;

• Technological risk: FinTechs create new fields of competition and raise customer expectations which challenge our relationship approach. Increasing cybercrime will force the organisation to spend more effort on safeguarding systems;

• Legal risk: regulations like BRRD and CRR/CRD are still under development and can result in requirements that influence Triodos Bank's business model.

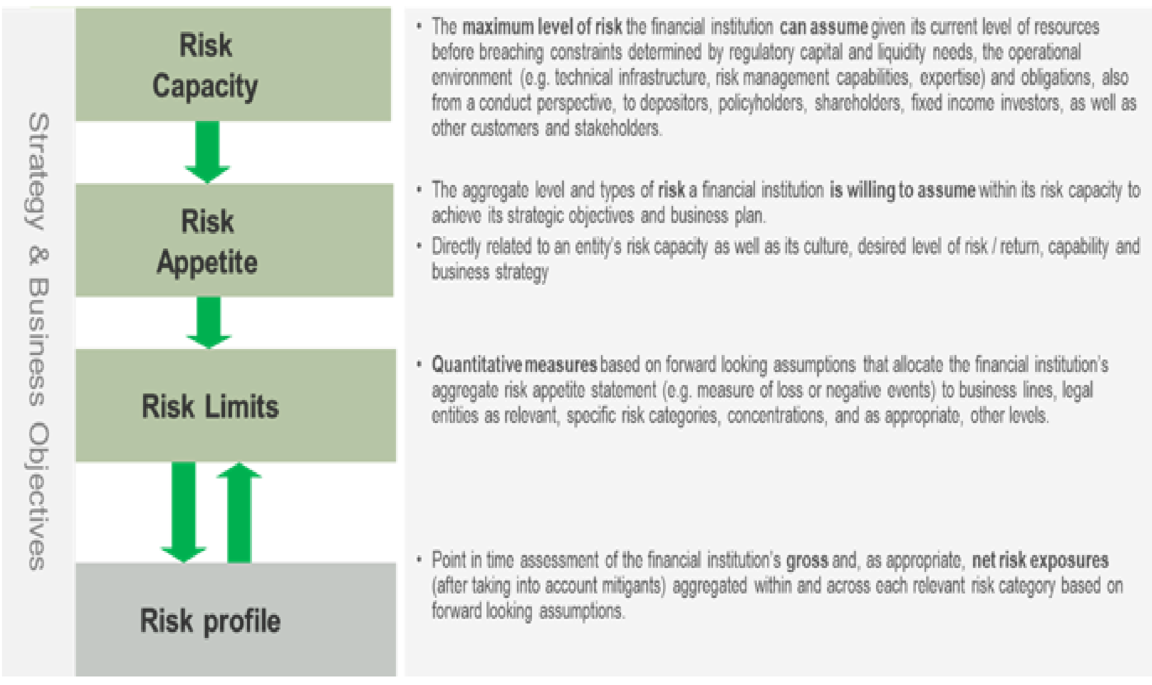
Mitigating strategies are discussed and tailored to fit the situation at hand. Over the past years, two of the mentioned risks are most impactful and are expected to continue in the foreseeable future. These are the continuing low interest rate environment and the regulatory requirements. The first has led to a decreased margin and consequently lower profitability than foreseen. The second one has led to the need for additional co-workers, system adaptation and processes in order to implement new regulatory requirements.

Climate risk contains two important elements:
• the risk that is related to the transition of "old" sources of energy to sustainable sources (transition risk), which can result in so called stranded assets. As an example: power plants using coal must be closed earlier than the precalculated end date,
• the risk that is related to the changes of the climate itself causing physical damage (physical risk). E.g. extreme weather conditions and the rise of sea level.
Given that sustainability considerations are a starting point within our lending processes, transition risks are minimal in our loan portfolio. Our lending is already contributing to a low-carbon future.
Regarding physical risk, the changes in climate leading to storms, floods and droughts may have an impact on our assets. We have not identified assets we consider to be especially vulnerable to these physical risks. In the longer term, impact on weather conditions (such as wind and solar resources) may affect renewable energy generation. However, there are no reliable predictions for this happening, and it is unlikely to affect our portfolio assets within the duration of our current portfolio.
Nevertheless, Triodos Bank carries out annual stress tests which take extreme but plausible situations into account. As part of determining the scenarios, Triodos evaluates whether extreme weather situations could impact the bank's resilience with a time horizon of three years. Currently, we find that it is very unlikely to have material impact on this time horizon.
Finally, we are of the opinion that, since these risks certainly are capable of severely affecting society as a whole, on the longer term we must as a society and sector drastically decrease and minimise the financing of unsustainable assets.

Risk Appetite

A risk appetite process is implemented across Triodos Bank to align its risk profile with the willingness to take risk in delivering its business objectives. The Risk Appetite Statement reflects the actual implementation of the Risk Appetite Framework. It is updated yearly and is approved by the Supervisory Board upon advice by the Audit and Risk Committee. The concept of risk appetite and the link to the Strategy and Business objectives is illustrated below:

Overview of risk capacity, risk appetite, risk limits and the relationship with Triodos Bank's risk profile.



The risk appetite is based on three objectives that fit with Triodos Bank's corporate goals and guarantee a sustainable banking model. These objectives are to: (1) protect identity and reputation, (2) maintain sound balance sheet relations and (3) ensure stable profits.

Triodos Bank uses a set of indicators and limits to measure and assess the level of risk appetite and risk profile of the organisation. The risk limits, determined at corporate level, are translated into a localised limit structure for each banking entity.

Stress testing

Stress testing is part of Triodos Bank's risk management. It is of critical importance in establishing a well-balanced forward-looking management view that incorporates adverse developments and circumstances that the bank might be exposed to. Stress testing exercises also provide valuable insights in the exposure of the portfolio towards risk events. Stress testing for capital at Triodos Bank is conducted at group-wide, at risk domain and at sector level. In addition, sensitivity tests are also carried out as part of the annual business banking sector analyses.

The process of firm-wide scenario stress test analysis may be broken down into a sequence of phases, where the defined stress scenarios are translated into risk events and indicators to measure the risk levels. After the determination of the impact and the aggregation of the results the outcome is reported and discussed. Scenarios that are assessed are of a varied nature, including macro-economic stress and idiosyncratic stress (e.g. operational and reputational stress).

Given the selected scenarios, Triodos Bank is sensitive to a long lasting, low interest environment scenario. It shows that profitability would be under pressure in the coming years. This risk will be mitigated by a focus on cost efficiency, pricing and by diversification of income. Finally, Triodos Bank is sensitive to scenarios relating to reputation risk. To prevent such an event, it is essential to communicate clearly about the mission and to act accordingly.

Recovery

The Recovery Plan specifies measures Triodos Bank can take in order to survive a severe crisis. The aim of a recovery plan is to be prepared for a crisis and therefore to lower the probability of the organisation defaulting. It also aims to identify and quantify the effectiveness of measures in different scenarios.

Enterprise Risk Reporting

The principal objective of the Enterprise Risk Management (ERM) report is to set the actual risk profile of Triodos Bank against its risk appetite, assess if key risk indicators have been breached and what actions may need to be taken. In addition the ERM report creates a single point of reference for all risk related activities within Triodos Bank. The ERM report provides insights into specific risk themes and provides an integrated picture of risk at corporate level. This report is discussed in the Enterprise Risk Committee and shared with the Audit and Risk Committee and Supervisory Board.

Every risk discipline reports on a monthly basis or on a quarterly basis. These reports are discussed in corresponding committees and measures are taken whenever needed. On a quarterly basis, they are integrated in the ERM Report which provides insights into the Triodos Bank risk profile in relation to its risk appetite.

Reputational Risk

Triodos Bank defines Reputation Risk as the risk arising from negative perception by customers, counterparties, shareholders or regulators, which can adversely affect the bank's ability to maintain existing, or establish new, (business) relationships and continued access to sources of funding.

Being a mission-driven bank, Triodos Bank's reputation is vital to its ability to pursue its mission. As such, Triodos Bank's reputation is managed in a proactive manner, for the most part by 'doing things right' and 'doing right in line with Triodos Bank's mission'. Generally, proactively managing its reputation implies for Triodos Bank (i) to attract and retain qualified employees with a strong affinity with Triodos Bank's mission and values; (ii) to maintain a sound risk governance structure, enabling the execution and control of the bank-related processes correctly; and (iii) to actively position Triodos Bank's identity, its positive impact (for the longer term) and connection to society.

Non Financial risk

Non-financial risk includes all the risks faced in Triodos Bank's regular activities and processes, that are not categorised as enterprise or financial risk. Triodos Bank has sub-divided this into operational and compliance risk. Monitoring these risks is particulary important to ensure Triodos Bank can continue to offer quality financial services to its stakeholders.

Operational risk

Operational risks relate to losses Triodos Bank could incur as a result of inadequate or failing internal processes, systems, human behaviour or external events. Triodos Bank limits these risks with clear policies, procedures and controls for all business processes. The operational risk framework uses several tools and technologies to identify, measure and monitor those risks and monitors the level of control on an operational, tactical and strategic level. During 2019 the in 2018 formalised control testing and key control management was further implemented to support the monitoring of identified operational risks. Due to a robust risk event management process the Operational Risk Management department is able to perform analyses on a continuous basis.

Operational Risk Management includes Information Security, Outsourcing and Business Continuity. Activities to manage risks related to these subjects are executed under the responsibility of the Chief Risk Officer in line with the operational risk framework.

The Non-Financial Risk Committee where the non-financial risks aspects are discussed including compliance and IT risk, meets on a monthly basis. During 2019 both the group- and local Non-Financial Risk Committee charters were updated in accordance with the review timelines set for these documents.

Triodos Bank applies the Basic Indicator Approach to calculate minimum capital requirements for operational risk.

The operational risk framework follows the principles mentioned in the Sound Practices for the Management and Supervision of Operational Risk. These sound practices provide guidelines for the qualitative implementation of operational risk management and are advised by the Bank of International Settlements. During 2019 no material losses occurred within Triodos Bank as a result of operational risk related events.

Tax risk

Triodos Bank N.V. is subject to international tax risks given its operations in several West-European countries. The local tax risks are managed by the respective local Triodos Bank banking entities, supported by close cooperation on tax matters between our tax department at group level and the Triodos Bank banking entities.

Financial reporting risk

Triodos Bank is subject to financial reporting risk which is mainly related to estimates and assumptions applied as further disclosed in the financial statements starting on page 71 of the annual report 2019. Triodos Bank is continuously working on improving its reporting. Specific projects and improvement programs have been set up in which new systems will be implemented to ensure effective and efficient usage and analysis of data in order to support its decision processes.

IT risk/cybersecurity risk

Cyber threats are still high across the financial sector. Triodos Bank performs periodic cyber threat assessments to determine its strategy to limit these risks. The information security management system includes the Dutch Central Bank (DNB) framework for Information Security which is based on COBIT.

In order to detect and respond to cybersecurity events a Security Operations Centre (SOC) is in place. Business Units follow both the central security plan but also have their own responsibility when setting up awareness training specific to local needs as strong security awareness among co-workers is also an essential part of security.

Compliance risk

Triodos Bank defines compliance risk as the risk of legal or regulatory sanctions, material financial loss or loss to reputation that Triodos Bank may suffer as a result of its failure to comply with laws, regulations, rules, related self-regulatory standards, and codes of conducts applicable to its banking activities. Internal policies, procedures and awareness activities are in place to guarantee that co-workers in all functions comply with relevant laws and regulations.

The compliance function independently monitors and challenges the extent to which Triodos Bank complies with laws, regulations and internal policies, with an emphasis on customer due diligence, anti-money laundering, treating customers fairly, preventing and managing conflicts of interest, data protection and the integrity of co-workers.

The Central Compliance Department at group level reports to the EB. Compliance Officers are present in every business unit with a functional line towards the Central Compliance Department. Resources of the local Compliance function are tailored to the size of the business unit and the regulatory environment. Significant compliance risks are reported to the Non-Financial Risk Committee and to the Supervisory Board's Audit and Risk Committee on a quarterly basis.

Compliance risks are identified, assessed, mitigated, monitored and reported via a compliance risk management cycle. Controls to mitigate compliance risks are embedded in business processes. The compliance function monitors the effectiveness of controls by means of a risk-based Compliance Monitoring Plan.

In 2019 Triodos Bank has continued to enhance its controls related to anti-money laundering, counter terrorist financing and sanctions regulations. Policies and procedures were updated to ensure compliance with changes in anti-money laundering and counter terrorist financing laws and guidance by regulators. A group wide systematic integrity risk analysis was executed.

In 2018, the Dutch Central Bank (DNB) conducted a thematic, sector wide survey among Dutch banks, focussing on the measures that the banks have taken to prevent money laundering and terrorism financing. From this survey, DNB concluded that Triodos Bank is required to implement enhanced measures concerning customer due diligence and monitoring of customer transactions. On 6 March 2019 the Dutch Central Bank imposed on Triodos Bank NV a formal instruction (aanwijzing) to remedy shortcomings in the compliance with provisions of the anti-money laundering and counter-terrorist financing laws and the financial supervision laws. Triodos Bank is implementing enhanced mitigating measures.

Triodos Bank was not involved in material legal proceedings or further sanctions associated with non-compliance with legislation or regulations in terms of financial supervision, corruption, advertisements, competition, data protection or product liability.

Financial Risk

Financial risk is an umbrella term for multiple types of risk associated with financing the balance sheet. To manage this, financial risk is subdivided in three categories: credit risk, liquidity risk and market risk.

Credit Risk

Credit Risk loan book

Credit risk is the risk that a counterparty doesn't fulfil its financial obligations. Triodos Bank manages its Credit Risk at a client and at portfolio level. It operates within a pre-defined set of criteria for accepting credits. Credits are extended within the target markets and lending strategy in accordance with Triodos Bank's mission and expertise. Before accepting a credit facility, Triodos Bank makes an assessment of the customer's risk profile, cash flows, available collateral and the requested transaction, including an assessment of the integrity and reputation of the borrowers or counterparty. Compliance analysis with Triodos Lending Criteria is an integral part of each credit proposal.

In order to manage credit risk Triodos Bank developed an internal rating-based system, resulting in a probability of default. Furthermore, Triodos Bank has developed a loss given default model, allowing us to model the expected loss and the economic capital.

Obligor Risk

An obligor is a single legal entity that commits to the terms and conditions of a loan agreement. The obligor is thoroughly analysed on meeting Triodos Bank's lending criteria and its capacity to repay a loan. The risk related to the obligor is that it fails to meet its contractual obligations. Obligors are rated through an internal rating methodology.

A thorough assessment of each obligor and the structure of their loan is made before any loan is provided. A review of approved credit is made once a year, as a minimum, to assess the evolution of the client's capacity to meet its obligations. The high quality of securities (collateral) against outstanding loans reduces credit risk. Examples of principal colateral: mortgage registrations for business or private properties, securities from public authorities, companies or private individuals, and rights of lien on movables, such as office equipment, inventories, receivables and/or contracts for projects.

Triodos Bank aims to finance specific projects and assets that are in line with its mission. When financing a project, the bank has a pledge on the underlying contracts. For the financing of objects, Triodos Bank will take a pledge or mortgage on the specific object. It applies haircuts, in all cases, on the market value. The level of this haircut will depend on the marketability of the asset in a negative scenario. This allows Triodos Bank to make a proper assessment of the overall risk of the loan and the value of the asset in case of a downturn. The value of the collateral is reviewed on a yearly basis. An external valuation by an expert is requested, at a minimum every three years, for large loans with a mortgage.

Triodos Bank has an early warning system that helps identify problem loans early, to allow for more available options and remedial measures. Once a loan is identified as being in default (unlikeliness to pay or material overdue payments beyond 90 days), it is managed under a dedicated remedial process, with a focus on full recovery.

Group Exposures

The risk related to a Group is that if one obligor fails to meet its contractual obligations, so will the remaining obligors within the Group. A group is defined as two or more obligors that are interrelated in such a way that they are considered as a single risk.

Each obligor of the Group, and the Group as a whole, are analysed on all aspects, from meeting Triodos Bank's lending criteria to their capacity to repay the loan.

Concentration Risk loan book

Loans are provided to businesses and projects that contribute to achieving Triodos Bank's mission. Given that this involves a small number of sustainable sectors, a certain level of sector concentration is inherent to the loan portfolio. Concentration in the existing sectors is acceptable as Triodos Bank has considerable expertise in these sectors and actively invests in further increasing its knowledge.

Triodos Bank focus primarily on the quality and diversification of its loan portfolio. We put extra effort into identifying loans to front-runners in their fields; the entrepreneurs developing the sustainable industries of the future.

A diversified credit risk portfolio is the result of assets spread over many debtors, sectors and geographies that are not interrelated. In order to manage concentration risks and face an economic downturn with confidence, Triodos Bank maintains a set of limits. It measures and limits the following concentration risks in its lending activities: obligor exposures, group exposures, top 20 exposures (excluding central and lower government exposures), government exposures, exposures at sector per country, mortgage exposures and country exposures.

Besides lending activities, Triodos Bank has established limits related to the investment portfolio concerning central banks, governments, supranational institutions and banks and financial institutions. These limits are derived from the risk appetite framework and aim to keep concentration risk at an acceptable level.

From a regulatory perspective, exposures to a client or a group of connected clients may never exceed 25% of the Actual Own Funds. Loans in excess of 10% of the Actual Own Funds require special reporting to the supervisory authority.

Triodos Bank has no loans to a group of connected clients exceeding 10% of the Actual Own Funds in its loan book. Limits of the investment portfolio are described in the relevant chapters.

Sector concentrations

Triodos Bank is active in well-defined sectors where it has extensive expertise, and which are in line with its mission. It has set limits on sectors, based on Actual Own Funds, at group and banking entity level. Sector studies have shown relatively low correlations of risk drivers in sectors that Triodos Bank finances in multiple countries. A specification of the lending by sector can be found in the annual report of Triodos Bank.

At group level, Triodos Bank divides the sector concentration limits in different levels. Specific limits for each sector per country are set by the Executive Board within these levels, taking into account the specific risks of each sector and country.

Larger sectors are strategic for Triodos Bank. These are well distributed across banking entities (and countries) and have an overall low risk profile that justifies a higher consolidated concentration. Sector analyses are performed on an annual basis and are presented to the Central Credit Committee to be able to respond swiftly to developments that may affect the risk profile of the portfolio. Central Credit Risk can request sector updates at shorter intervals if there is a change to a sector risk profile.

Sector limits are approved on the basis of thorough annual sector analyses demonstrating an in-depth knowledge of the sector and Triodos Bank's track record.

Country concentrations

Triodos Bank is a European bank, acting under the European Banking Directive since 1993, with banking entities in five countries (The Netherlands, Belgium, Spain, Germany and the United Kingdom) and with additional exposures amongst others in France and Ireland.

Triodos Bank does not set any country limits for the countries it operates in as long as these countries have a credit rating of AA- or better. Specific limits are defined for countries with a credit rating of A+ or lower.

Credit risk investment portfolio

Liquidity not invested in loans to customers is invested in deposits with banks (including Central Banks) or bonds. Triodos Bank's policy is to invest the liquidity in the countries where it has banking entities. The bond portfolio of Triodos Bank comprises of (local) government bonds (from countries where Triodos Bank has a banking entities) and investment grade bonds issued by European supranational organisations (e.g. European Investment Bank), Financial Institutions and corporates.

There are no regulatory restrictions to exposures on governments. Triodos Bank sets limits based on the country risk.

There are also no regulatory restrictions to exposures on multilateral development banks as far as an institution has a credit risk weight of 0% for regulatory capital requirements. Triodos Bank has set limits to avoid concentration risk in these exposures.

Credit risk banks

Banks are selected on the basis of their creditworthiness and screened on their sustainability performance. Exceptions can occur, when the capacity of selected banks in a country is considered not sufficient to place Triodos Bank's liquidities using a certain maximum concentration per individual bank. In such cases, deposit maturity periods will not exceed three months. All counterparty limits for banks are set by either the Executive Board or the Central Credit Committee. Banking entities place excess liquidity with the country's central banks (minimum reserve requirements and deposit facility). There are no regulatory restrictions on exposures to Central Banks.

The Capital Requirements Regulation Large Exposures Regime limits the maximum exposure to a bank at 25% of its Tier 1 capital plus (if available) Tier 2 with a maximum of one third of Tier 1 capital. To avoid the interbank exposure exceeding the regulatory maximum, Triodos Bank applies a maximum exposure below the limit based on the Large Exposures Regime. The limits are furthermore adapted to the external rating of the counterparty and also deposits on banks are limited to a maximum maturity of one year.

Credit risk related to derivatives

Triodos Bank has exposure to credit risk resulting from outstanding Foreign Exchange (FX) contracts (spot, forward and swap transactions) with Financial Institutions and with funds managed by Triodos Investment Management. Triodos Bank services these funds by providing hedges for the foreign exchange risk of these funds' investments.

Triodos Bank has limited exposure to credit risk resulting from outstanding Interest Rate Swaps (IRS). The IRS are all centrally cleared with the LCH Clearnet. The daily margining minimises the (potential) credit risks.

A limit is set per counterparty based on the expected amount of outstanding FX transactions and the corresponding expected exposure. This limit is subject to the overall counterparty limit Triodos Bank has per counterparty.

Any collateral needed for FX transactions is calculated and managed daily. In the liquidity stress tests, the amount of collateral needed for FX transactions is stressed in order to calculate the potential impact on Triodos Bank's liquidity position.

Triodos Bank entered into FX deals with Triodos Investment Funds and these deals are hedged by deals with a few banks. Wrong-way risk is the risk that the exposure to a counterparty is adversely correlated with the credit quality of that counterparty. The FX deals with the Triodos Investment Funds do not cause wrong-way risk as these FX deals hedge the FX risk of the underlying assets of the Investment Funds. At the end of 2017 Triodos Bank stopped entering into new FX deals with Triodos Investment Funds because of new regulation. In addition, the wrong-way risk of transactions with banks is mitigated by only using banks with a sufficient credit rating and by having collateral agreements in place.

Additional disclosure related to the credit quality of assets

Business loans in the portfolio are periodically reviewed on an individual basis. Their frequency depends on the debtor's creditworthiness, the degree of market exposure and the market in which the debtor operates. Small business and private loans are reviewed at portfolio level, and on individual basis if appropriate. The credit committee of a banking entity discusses and, if necessary, takes action with respect to overdue payments from debtors. If there is any doubt regarding the continuity of the debtor's core operations and/or a debtor fails to settle agreed interest and repayment instalments for a prolonged period, this debtor falls under the category of doubtful debtors and will be managed intensively.

The net allocation (addition minus release) to the specific provision for doubtful debts have remained very low in 2019 and amounted to EUR 3.6 million. This is mainly due to a strong economy in the different European countries Triodos Bank is active in. The effects of the economy lead to lower amounts in defaults, more clients that can be cured from their default status and when in default, the collateral value used for recovery of the loan will often generate a higher value than in an economic downturn scenario. The loan portfolio has grown by 13% in 2019 and at the same time total provisions have been reduced by 14% compared to 2018, total provisions as percentage of the loan portfolio has reduced from 0.5% ultimo 2018 to 0.4% ultimo 2019 and the defaulted portfolio as percentage of the total portfolio reduced from 1.9% to 1.6%. Although the outlook is somewhat uncertain (Brexit, trade wars) with a possible slowdown of the economy in 2020, the effect on the Triodos Bank portfolio will be relatively limited as we predominantly support local production for a local need. This largely limits the negative effects of global markets and (limited) cross border trade.

Provisions for loan losses are taken for doubtful debtors at an individual level based on the difference between the total amount of the debtor's outstanding liability to Triodos Bank and the future expected cash flows, discounted at the original effective interest rate of the contract. These individual provisions include provisions for concessions or refinancing given to debtors who face financial difficulties. They are only granted to the debtor in question in order to overcome their difficulties in these exceptional circumstances. These are described as forbearance measures.

A collective credit provision has been taken for Incurred But Not Reported bad debts (the IBNR) to cover the time lag between the event that prompts the debt to qualify as doubtful and the moment that fact is known to Triodos Bank. This is a collective credit provision and is based on statistics. The IBNR is calculated by multiplying the exposure at default with the probability of default, the loss given default and the loss incubation period. Since 2016, in view of the growing mortgage portfolio, Triodos Bank has added an IBNR provision for mortgages. Triodos Bank portfolio has no specific provisions of any relevance in its mortgage loan portfolio and has therefore chosen to use market statistics to define this additional provision.

In 2019, the net additions to the provision for doubtful debts, as a percentage of the average loan portfolio, was 0.05% (2018: 0.05%). The total of provisions related to the outstanding credits is 0.4% (2018: 0.5%) as at the end of the year.

The credit risk in the loan portfolio is reported each month to the Central Credit Committee, and quarterly to the Audit and Risk Committee as part of the ERM report.

Qualitative disclosure requirements on institutions' use of external credit ratings under the standardised approach for credit risk

In addition to our own opinion, external credit ratings – if available – are used to determine the credit worthiness of the counterparties of our investment portfolio and banks, and for a few corporates. External ratings are also used for calculating the minimum capital requirement for credit risk under the standardised approach. For this purpose, we use the ratings of Fitch and Moody's.

Liquidity risk

Management of liquidity risk

Triodos Bank only lends to and invests in sustainable enterprises in the real economy. Triodos Bank is not dependent on funding from the wholesale market. Funds are attracted from depositors and shareholders.

Triodos Bank does not invest in complex financial instruments. It has been this approach that enabled Triodos Bank to remain solid and stable in a time of market crisis but also to continue to row steadily. The key factor to achieve this is to maintain healthy levels of liquidity. Triodos Bank has a large, good quality liquidity buffer resulting in sufficient liquidity and funding ratios. Triodos Bank does not act as correspondent bank which minimises liquidity needs during the day.

The following funding principles apply:

- Balanced growth in funds entrusted is a prerequisite for growth in loans
- No dependency on cross-currency funding
- No dependency on central bank contingency funding

The daily liquidity management is currently executed at banking entity level as it is the business strategy of Triodos Bank to have this process close to the end-customer to provide detailed cash forecasts. On aggregated level, Group Treasury monitors the liquidity buffer versus the internal limits daily.

The management of the liquidity position under 'normal' conditions is described in the Liquidity Risk Management Policy. Triodos Bank manages the liquidity position to withstand a liquidity crisis without damaging the on-going viability of its business. The potential but unlikely event of an upcoming liquidity crisis requires a set of early warning indicators and triggers, a set of potential early warning and recovery measures, and a dedicated organisation including a communication strategy to handle such a crisis. A list of potential early warning and recovery measures is included in the Recovery Plan. The other aspects mentioned are described in the Liquidity Contingency Plan.

The liquidity portfolio slightly increased during 2019 and Triodos Bank's liquidity position remained strong. Triodos Bank policy is to hold a sound liquidity buffer and invest liquidities in highly liquid assets and/or inflow generating assets in the countries where it has banking entities. Due to the ongoing expansion of the monetary policy by the ECB and specifically the asset purchase program, yields of government bonds and other high rated counterparties were not attractive to invest in. Hence, the profile of the liquidity buffer changed during 2019. The bonds portfolio decreased by almost 19%, due to maturing bonds being placed mostly at the central bank.

Liquidity monitoring and reporting

Triodos Bank monitors and reports its liquidity position at different levels and frequencies. Firstly, the total liquidity position is monitored by Group Treasury and the individual banking entities on a daily basis. Secondly, the detailed liquidity position, both in total and at banking entity level, is reported to the Chief Financial Officer and Chief Risk Officer on a weekly basis. Finally, every month the liquidity ratios are reported to the Asset and Liability Committee. The main liquidity ratios are part of the quarterly ERM report.

In addition, Triodos Bank conducts liquidity stress tests on a monthly basis.

Mitigation of liquidity risk

The liquidity buffer is the source of funds in case of liquidity needs. It consists of liquid assets with central and commercial banks and liquid investments in deposits and bonds. The bond investments are divided into different liquidity classes. The optimal size and composition of the liquidity buffer is determined considering the risk appetite, balance sheet composition and expected development, strategic plans and funding needs.

The Liquidity Risk Management Policy describes the actions to manage the liquidity position of Triodos Bank.

The Internal Liquidity Adequacy Assessment Process (ILAAP) assesses Triodos Bank's liquidity adequacy and liquidity management during normal business activities and in times of stress. This process is performed at least once a year and the results are submitted to the Dutch Central Bank as part of the Supervisory Review and Evaluation Process (SREP). The ILAAP Report is an internal document. The goal of this report is to properly evaluate the liquidity and funding risks and Triodos Bank's corresponding liquidity levels and the quality of the liquidity management.

The Liquidity Contingency Plan and the Recovery Plan describe the main items that should be considered in managing the liquidity risk position of Triodos Bank in a 'stressed situation'. This includes liquidity stress indicators and trigger levels for management actions.

To increase the possibilities of recovery in periods of liquidity stress, Triodos Bank executed a retained securitisation transaction of Dutch mortgage loans (Sinopel 2019).

Concentration of funding

All Triodos Bank's funding comes from two sources, i.e. funds entrusted and depository receipts (DRs), while the bank does not make use of wholesale funding.

For its funding Triodos Bank mainly depends on funds entrusted from retail and business banking clients, consisting of current accounts, saving accounts and fixed term accounts.

The total amount of funds entrusted is EUR 10,690 million of which **77% ar**e deposits insured by the Deposit Guarantee Scheme.

With regard to the distribution of capital, depository receipts belong to institutional investors, private persons and family offices. 7.0% of the total share capital is owned by larger institutional investors with a participating interest of 1% or more.

Collateral calls

The impact of potential collateral requirements is increasing at Triodos Bank. The amount pledged with central and commercial banks, for payment system purposes, increased in 2019 and is expected to increase with the further growth of Triodos Bank. The collateral needs stemming from FX forwards increased in 2019 because Triodos Bank partly hedged the currency risk of the UK subsidiary equity participation of Triodos Bank.

Interest Rate Swaps which are centrally cleared, increased the potential collateral needs as well during the year. At the end of 2019 total net amount of EUR 9.3 million cash collateral was posted.

Declaration

The liquidity risk appetite as determined by the Executive Board (EB) and Enterprise Risk Committee (ERC) is reviewed and approved by the Supervisory Board. With this governance structure in place, the risk appetite regarding liquidity is well anchored within the senior management team of the bank. The adequate organisational structure with three lines of defence ensures that a clear division of tasks, power and responsibility is in place together with an independent control, compliance, audit and risk management function.

A robust framework is in place at Triodos Bank to identify, measure and manage liquidity risk in line with BCBS/ EBA principles. An integrated overview of the group cash position and liquidity metrics is available on a daily and weekly basis.

In the last two years, the liquidity contingency plan has been tested and reviewed thoroughly to achieve a solid crisis management structure in case a liquidity crisis at Triodos Bank emerges.

A limit structure is in place to manage the inherent funding mismatch other than in exceptional circumstances. Triodos Bank follows the BSBC/EBA principles considering its sustainable profile, the very strong relationship with its customers, the granularity of the Funds Entrusted and its conservative and robust liquidity management framework that is integrated in the business processes.

As a mid-sized European bank with total Funds Entrusted of EUR 10,690 million per the end of December 2019, liquidity risk is an important risk for Triodos Bank. The Bank has intensively worked on the development of a solid liquidity framework to have always sufficient funds to meet sudden and (un)expected short-term liquidity needs. The high cash liquidity buffer in combination with a high-quality investment portfolio, reflects the low risk appetite for liquidity risk.

Triodos Bank has a large, good quality liquidity buffer resulting in high Liquidity Coverage Ratios and Net Stable Funding Ratios. In all liquidity stress test scenarios Triodos Bank has sufficient liquidity to survive the total stress period.

The remaining low interest rate climate influences liquidity risk management at Triodos Bank. Triodos Bank needs to manage its liquidity buffer at an ever-increasing cost-of-carry. The trade-off between having sufficient liquidity versus the relative high costs of holding that liquidity is becoming more important.

Securitisation

In 2019, Triodos executed its first retained residential mortgage backed securitisation (RMBS) transaction called Sinopel 2019 B.V. (“Sinopel”). A securitisation is a transaction where a pool of assets is sold to a special purpose vehicle. The special purpose vehicle issues notes with different tranches to finance the purchase price of the assets.

With Sinopel Triodos Bank structured a retained RMBS whereby Triodos is the sole buyer of the issued notes and has as such not transferred any credit risk. Through the retained RMBS, Triodos Bank strengthens its financial resilience and gains additional access to (central bank) liquidity by pledging the notes as collateral with the Dutch Central Bank. The Sinopel RMBS is collatoralised by Dutch residential mortgages loans. The structure is fully compliant with the new Simple Transparant Standardised EU regulation. For notes issued by Sinopel 2019 B.V., the following ECAIs were involved: DBRS Ratings Limited and S&P Global Ratings Europe.

As there is no risk transfer with the Sinopel transaction, the securitisation exposures (notes) are not risk-weighted separately. The securitised assets (mortgage loans) are taken into account as if they were not securitised. Triodos consolidates Sinopel in its annual accounts.

Apart from the Sinopel transaction Triodos is not active as originator, investor or sponsor of securitisation exposures. As a result, Triodos does not hold any re-securitisation positions and does not provide securitisation related services to any other SPV.

Market risk

Market risk is the risk of losses in on and off-balance positions arising from movements in market prices. For Triodos Bank this means changes in interest rates and foreign exchange rates in particular. Triodos Bank doesn’t have a trading book, but interest rate risk is present in the banking book.

Interest Rate Risk in the Banking Book

Triodos Bank defines interest rate risk in the banking book (IRRBB) as the risk that changes in prevailing interest rates will adversely affect the market value of assets versus that of liabilities and/or income versus expenses. Triodos Bank identifies the following three main sources of IRRBB:

• Gap risk, the risk of adverse consequences due to differences in timing of the impact of interest rate changes on the value and interest of assets and liabilities, covering changes to the term structure of interest rates occurring consistently across the yield curve (parallel risk) or differentially by tenor (non-parallel risk).

• Basis risk, the risk of adverse consequences which result from changes in the difference between two or more rates for different instruments with the same interest maturity but different benchmark rates on which the pricing is based.

• Option risk, the risk that changes in market interest rates prompt changes in the value or maturity of instruments, due to explicit or implicit optionality embedded in the bank's products.

Interest Rate Risk management and mitigation strategies

Interest rate risk is generated by normal customer related banking activities. Triodos Bank uses retail funding to finance clients and projects which aim to improve society and the environment. In addition, the bank maintains solid capital and liquidity buffers to support its resilience.

The level of interest rate risk is managed in a four-stage risk control cycle. In this cycle, first the relevant definitions, indicators, measurement methods, and analysis for IRRBB are set. Next, the limits for the main IRRBB indicators are specified in the risk appetite statement. The third stage defines the roles and responsibilities for IRRBB management, model governance, and escalation procedures and exceptions. Lastly, the risks are monitored, reported and mitigated if necessary.

The new production at the individual banking entities determines an important part of the risk development. Each banking entity sets up a budget for the new production for the next three years and updates it quarterly with a forecast. The budgets are consolidated and compliance with the risk appetite is checked. Adherence to the budget means that asset and liability management is predictable and therefore the fulfilment of the budget is closely monitored.

Triodos Banks manages its interest rate risk position in three ways. Firstly, Triodos Bank is to a limited extent able to steer the volume and interest rate terms of new assets and the interest rate of its liabilities in order to maintain the interest rate risk exposure within limits. However, changes in client rates and terms will not be made to the extent that they would materially impair Triodos Bank's customer service, market position, profitability, capital adequacy and reasonable customer expectations. Secondly, the amount and duration of the marketable investments in the liquidity buffer can be adjusted. Finally, Triodos Bank uses Interest Rate Swap (IRS) contracts to maintain the bank's IRR exposure within the limits, if the first two methods are not effective enough. The use of IRS is subject to hedge accounting to avoid volatility in the P&L.

The ALCo is delegated by the Executive Board to monitor and take decisions related to the management of the IRRBB. Additionally, the ALCo approves material changes to IRRBB models and changes to important model assumptions. Finally, the ALCo decides on approval of and monitors adherence to the group-wide pricing framework for retail and business banking products.

One of our main strategic risks is the low interest rate environment. With the economy slowing down, low interest rates are likely to continue for some time, with a negative impact on Triodos Bank's return. As rates on the assets are decreasing, and the rates on the liabilities have hit the psychological floor of zero percent, the margin is being compressed.

Main measures

Triodos Bank uses various indicators to measure interest rate risk. The interest rate risk position is monitored by the ALCo monthly and reported quarterly to the Executive Board. The main IRRBB indicators used are Earnings at Risk, Economic Value of Equity at Risk, Modified Duration of Equity, and Gap analysis. Below follows a brief description:
• Earnings at Risk: a short-term indicator which shows the effect of an interest rate shock on Triodos Bank's net interest income over a one year and two-year horizon.
• Economic Value of Equity at Risk: a long-term indicator which represents the change of the Economic Value of Equity (which is the net present value of the future cash flows of all assets netted with the net present value of the future cash flows of the liabilities) in the event of an interest rate shock.
• Modified Duration of Equity: an indicator that expresses the sensitivity of the Economic Value of Equity in the event of small parallel interest rate changes.
• Gap analysis: allows to get a quick and intuitive sense of how Triodos is positioned by comparing the values of the assets and liabilities that roll over – or reprice – at various time periods in the future. While a Gap analysis is a good measure of repricing risk, it is not able to measure interest rate risk stemming from option risk and basis risk. Therefore, Triodos Bank monitors the sensitivity of economic value of the banking book items to interest rate changes for different parts of the yield curve, by calculation of key rate durations.

Option risk is typically present in the form of caps and/or floors on floating interest rates and as a result of client and bank behaviour, i.e. due to prepayments on loans and mortgages, withdrawal of funds entrusted, and the discretion to change the interest rate on savings and current accounts. Both embedded options and behavioural characteristics are considered in the IRRBB measures.

Due to the growth of the mortgage portfolio, Triodos has also worked (and continues working) on improving the data on off-balance commitments. Especially fixed rate commitments (which are often present in new mortgages to be paid out) add to the interest rate position of the Bank.

Stress scenarios

Triodos Bank runs a variety of interest rate scenarios to assess its level of interest rate risk. The scenarios are expressed as shocks to the market rate. These shocks can vary from parallel shocks to non-parallel shocks,downward to upward shocks, and instant to gradual shocks. Part of the shocks are prescribed by regulatory guidelines whereas other shocks are developed internally. The interest rate scenarios are regularly reviewed and approved in the ALCo.

Modelling

The model used for calculating IRRBB assumes that the balance sheet develops according to the budget/forecasts. In modelling of IRRBB, client behaviour is complex as it depends on many factors and, as a result, IRRBB models in general build on many assumptions. A brief description of relevant assumptions used in Triodos Bank's IRRBB modelling follows below.

First of all, behavioural models are used to assess the interest rate risk in savings and current accounts. The interest rate risk stemming from these products is difficult to quantify since these accounts typically have variable interest rates and no fixed maturity. The objective of the models used is to forecast the future outflow of the non-maturing deposits and their sensitivities to market conditions based on historical data, taking into consideration the statistical significance of that data. The model combines the relationship between client interest rates and market interest rates and outflow predictions.

Secondly, prepayments on loans and mortgages affect interest rate risk on the asset side of the balance sheet and depend on customer behaviour as well. Due to the low interest rate environment and the maturity of the portfolio, prepayments increased during the last years. Therefore, behavioural assumptions are present in the risk model and the level of prepayments is included in the measurement of IRRBB. Currently, a constant prepayment rate is used, consistent with the forecast made by the banking entities. Triodos Bank takes into account the correlation between interest rate levels and prepayment behaviour by using sensitivity analyses.

Thirdly, some of Triodos Bank's loans and mortgages contain caps and floors to prevent interest rates increasing or decreasing below a certain level. This affects the level of IRRBB in these products and both are taken into account in the economic value and earnings analysis. The economic value of the pipeline, which contains loans with a set interest rate which are committed but not yet remitted, is considered as well.

Lastly, the measurement method for the Outlier Criterion has changed and now uses risk-free discounting.

The 2019 year-end interest rate risk position decreased compared to the situation at the end of 2018.

The one-year Earnings at Risk decreased from 2.8% at the end of 2018 to 2.5% at the end of 2019. The worst-case Earnings at Risk occur under a depression scenario, determined by expert judgement, in which the interest rates move further down. Moreover, in that scenario long-term interest rates decrease stronger than short-term interest rates.

Duration of equity decreased from 3.2 years to 0.3 years in 2019. This decrease was mainly caused by the increasing duration of savings accounts, resulting from the behavioral Savings model. This in turn is caused by the lower interest rate environment. The duration of total assets (after hedging) stayed constant, despite the growth in long term fixed rate mortgages.

The Economic Value of Equity (EVE) at Risk decreased slightly from 6.3% at the end of 2018 to 6.2% at the end of 2019. The worst-case scenario from the perspective of EVE at Risk occurs under a steepening of the yield curve. The Outlier Criterion increased from 8.1% at the end of 2018 to 12.9% at the end of 2019. Unlike duration of equity and EVE at Risk, the outlier criterion is now determined using risk-free discounting.

Regarding the EUR portfolio, the duration of equity decreased from 3.6 years at the end of 2018 to 0.4 years at the end of 2019. The one-year Euro Earnings at Risk, at 2019 year-end, decreased slightly from 2.7% to 2.6%, compared to the end of 2018. The EUR EVE at Risk increased from 6.2% at the end of 2018 to 6.7% at the end of 2019.

Duration of equity of the Pound Sterling (GBP) portfolio increased from -0.2 years at the end of 2018 to +0.4 years at the end of 2019. The one-year GBP Earnings at Risk increased from 3.0% at the end of 2018 to 3.2% at the end of 2019. The GBP EVE at Risk decreased from 6.2% at the end of 2018 to 5.1% at the end of 2019.

2019	Floating-rate	<= 3 months	<= 1 year	<= 5 years	> 5 years	Total
Interest-bearing assets						
Cash	2,270,224	–	–	–	–	2,270,224
Banks	212,087	474	15,000	–	–	227,561
Loans	1,106,829	887,460	1,451,037	2,469,173	2,326,996	8,241,495
Hedged loans	–	82,800	67,400	-114,700	-35,500	0
Interest-bearing securities	–	55,226	161,072	640,717	166,407	1,023,422
Hedged interest-bearing securities	–	89,500	55,475	-104,975	-40,000	0
Total	**3,589,140**	**1,115,460**	**1,749,984**	**2,890,215**	**2,417,903**	**11,762,702**
Interest-bearing liabilities						
Banks	212	1,359	5,819	28,634	33,999	70,023
Funds entrusted	26,333	1,217,498	1,776,985	5,329,176	2,333,269	10,683,261
Total	**26,545**	**1,218,857**	**1,782,804**	**5,357,810**	**2,367,268**	**10,753,284**

2018	Floating-rate	<= 3 months	<= 1 year	<= 5 years	> 5 years	Total
Interest-bearing assets						
Cash	1,795,272	–	–	–	–	1,795,272
Banks	216,196	5,860	14,000	1,000	–	237,056
Loans	1,127,105	688,440	1,105,434	2,299,490	2,113,278	7,333,747
Hedged loans	–	70,100	69,400	-91,200	-48,300	0
Interest-bearing securities	–	101,739	286,580	703,417	166,481	1,258,217
Hedged interest-bearing securities	–	69,500	61,975	-111,475	-20,000	0
Total	**3,138,573**	**935,639**	**1,537,389**	**2,801,232**	**2,211,459**	**10,624,292**
Interest-bearing liabilities						
Banks	212	1,380	4,530	32,017	29,078	67,217
Funds entrusted	30,668	1,145,875	1,642,173	4,661,975	2,070,859	9,551,550
Total	**30,880**	**1,147,255**	**1,646,703**	**4,693,992**	**2,099,937**	**9,618,767**

Notes:
Only interest-bearing assets and liabilities are reported in this table, which results in differences with the balance sheet figures.
Interest bearing securities are valued at redemption value including bond premium and after deduction of discounts.
For funds entrusted without a fixed interest rate term, the outcome of the quantitative savings and current account model, as mentioned before, is used.
All other interest-bearing assets and liabilities are reported as floating rates or are broken down in the maturity calendar by their remaining contractual interest rate term.

Foreign exchange risk

Foreign exchange risk is the current or prospective risk to earnings and capital that arises from adverse movements in foreign exchange rates. Triodos Bank's base currency is the euro. The base currency of the UK subsidiary of Triodos Bank is GBP.

Triodos Bank aims to avoid net currency positions with the exception of those arising from strategic investments. The forward positions in foreign currencies is for hedging the currency risk of the UK subsidiary equity participation of Triodos Bank and reflect the currency derivatives of Triodos Investment Funds. The currency derivates of Triodos Investment Funds are nearly fully hedged.

The foreign exchange position is monitored daily and discussed in the Asset and Liability Committee on a monthly basis. Limits are agreed by the ALCo.

Foreign currency position

The following table shows Triodos Bank's foreign currency position in thousands of EUR as at 31 December.

2019	Cash position Debit	Cash position Credit	Term position Debit	Term position Credit	Net position Debit	Net position Credit
GBP	1,577,785	1,372,842	–	192,519	12,424	–
USD	20,083	1,676	9,708	9,708	18,407	–
NOK	101	–	–	–	101	–
AUD	1	–	–	–	1	–
SEK	49	–	–	–	49	–
INR	–	–	38,786	38,786	–	–
IDR	–	–	6,172	6,172	–	–
CNY	–	–	3,309	3,309	–	–
Total	**1,598,019**	**1,374,518**	**57,975**	**250,494**	**30,982**	**–**

Net open foreign currency position (total of net positions debit and credit): 30,982

2018	Cash position Debit	Cash position Credit	Term position Debit	Term position Credit	Net position Debit	Net position Credit
GBP	1,209,050	1,206,502	–	–	2,548	–
USD	18,079	1,162	26,596	26,596	16,917	–
NOK	101	–	–	–	101	–
AUD	1	–	–	–	1	–
SEK	49	–	–	–	49	–
INR	–	–	50,237	50,237	–	–
IDR	–	–	5,837	5,837	–	–
CNY	–	–	3,287	3,287	–	–
Total	**1,227,280**	**1,207,664**	**85,957**	**85,957**	**19,616**	**–**

Net open foreign currency position (total of net positions debit and credit): 19,616

Capital management

Triodos Bank wants to be strongly capitalised to support our growth strategy and to be a strong counterparty for our clients.Therefore, we maintain a relatively high equity base, which as a consequence puts downward pressure on the Return on Equity.

The objective of Triodos Bank's capital strategy is to ensure its viability by:

- Maintaining sufficient capital to absorb current and future business losses, also in extreme situations ('stress');
- Adequately allocate capital to its business units; and
- Ensuring compliance to all applicable capital legislation and regulation at all times.

All of Triodos Bank's solvency comes from common equity.

Regulation

Banking industry is highly regulated. Regulations play an important role in society to ensure banks operate safely. Triodos Bank pays constant attention to comply with all regulation.

Basel III is a worldwide standard for regulation, supervision and risk management of the banking sector, developed by the Basel Committee on Banking Supervision. Basel III has been transposed by the European Union into the Capital Requirements Regulation and the Capital Requirements Directive IV. The Capital Requirements Regulation is directly applicable and the Capital Requirements Directive IV was transposed into local law by each of the members of the European Union so is the Dutch implementation of the Capital Requirements Directive IV as Triodos Bank is formally domiciled in The Netherlands.

There is no difference in the scope of consolidation for accounting and for prudential reporting purposes. Except for transfer of own funds of Triodos Bank UK Ltd, there is not any current or foreseen material practical or legal impediment to the prompt transfer of own funds or repayment of liabilities among Triodos Bank and its consolidated companies.

Internal capital

The capital strategy of Triodos Bank is captured in its Internal Capital Adequacy Assessment Process ('ICAAP'). The ICAAP covers, for example, the measurement of risks requiring an adequate capital buffer, stress testing, capital contingency and the allocation of available capital to the different Triodos Bank banking entities and business units. The ICAAP is subjected to the Supervisory Review and Evaluation Process (SREP) of the Dutch Central Bank on a yearly basis.

The actual capital position is stressed regularly based on a number of stress scenarios. A capital contingency process is set up for Triodos Bank in case of a (potential) shortfall in available capital, which can be a threat to its solvency. For this purpose, the Recovery Plan contains measures for restoring its solvency by reducing risks and/or increasing capital and provides a specific governance structure for these stressed conditions.

Capital allocation and monitoring

Equity is allocated to banking entities, in proportion to the outcome of the internal capital calculation.

Triodos Bank works with a rolling three-year capital forecast. The Asset and Liability Committee monitors Triodos Bank's capital position and advises the Executive Board on the capital adequacy. The Asset and Liability Committee also assesses whether available capital is sufficient to support current and future activities on a monthly basis. During 2019 available capital has been at sufficient levels at all times in line withexternal regulatory minimum requirements. In 2019 new equity of (net) EUR 54 million was issued to finance Triodos Bank's further growth. In addition, a retained portion of the 2019 profit will be added to its reserves.

Capital requirements

Triodos Bank calculates its internal capital adequacy requirements based on minimum requirements ('pillar I') and supplemented with additional capital charges ('pillar II'), as described in the Capital Requirement Regulation.

The Common Equity Tier 1 (CET1) ratio increased by 0.4% from 17.5% at the year end 2018 to 17.9% at the year end 2019. This ratio is still well above the regulatory requirement. Further quantative information is disclosed in the Pillar 3 report which can be found on the website of Triodos Bank.

Minimum capital requirements (pillar I)

The total minimum regulatory requirement consists of capital charges for credit risk, operational risk and market risk:

• Credit risk – Triodos Bank applies the standardised approach (SA) for calculating its minimum capital requirements for credit risk and the simple approach for credit risk mitigation. The risk weighted asset calculations are done for all on-balance sheet exposures (including the loan book and the investment book), and off-balance sheet items (such as loan offers, not yet accepted) and derivatives exposures;

• Operational risk – Based on the size and limited complexity of the Triodos Bank organisation, the basic indicator approach (BIA) is used for calculating the capital requirement for operational risk, which equals 15% of the average over three years of Triodos Bank's gross income;

• Market risk – The capital charge for Triodos Bank's market risk is related to its exposure to foreign exchange risk. The requirement is calculated as the sum of the bank's overall net foreign exchange position, multiplied by 8%. Triodos Bank only accepts limited net foreign exchange positions in strategic investments and in its UK activities in GBP. However, when the regulatory threshold of 2% of the actual own funds is not exceeded, the capital charge for market risk is zero;

• Credit valuation adjustment risk – The capital charge for the counterparty risk of derivative transactions that are not cleared through a qualified central counterparty.

Additional capital requirements (pillar II)

In order to determine its economic capital, Triodos Bank also calculates additional capital requirements. These consist of charges for risks or parts of risks that are not covered by Pillar 1. This consists of items in the areas of credit risk, strategic risk, interest rate risk in the banking book, model risk and operational risk.

Management of excessive leverage

The risk of excessive leverage is managed inclusively in our capital management. We aim for a strong capital base, reducing this risk.

Capital instruments main features

Triodos Bank has issued one capital instrument:
Shares

The main features are:

Shares	
Issuer	Triodos Bank NV
Unique identifier	Not applicable. The shares have not been listed on any securities exchange
Governing law(s)	Dutch law
Regulatory treatment:	
Transitional CRR rules	Common Equity Tier 1
Post-transitional CRR rules	Common Equity Tier 1
Eligible at solo/(sub-)consolidated/solo&(sub-)consolidated	Solo and Consolidated
Instrument type	Ordinary shares
Amount recognised in regulatory capital (currency in million, as of most recent reporting date)	EUR 1,160.9 capital and reserves before regulatory adjustments. For a specification see the "own funds" tab.
Nominal amount of instrument (currency in million)	The nominal amount per share is EUR 50. At reporting date 14,401,765 shares were issued and fully paid up so that the total nominal amount is EUR 720.1.
Issue price	The shares will be issued continuously. The issue price of shares will be determined daily by Triodos Bank on the basis of a fixed calculation model that calculates the actual net asset value of Triodos Bank (the NAV) divided by the number of issued shares (the NAV per share). The NAV is equal to the book value of the assets of Triodos Bank minus the book value of the liabilities of Triodos Bank. The issue price per share will be rounded to whole euros, whereby values of 0.5 euros or more are rounded up.
Redemption price	Not applicable.
Accounting classification	Shareholders equity
Original date of issuance	Triodos Bank N.V. was founded as a public limited company under Dutch law by deed of 30 June 1980. The issuance of shares started from that date.
Perpetual or dated	Perpetual
Original maturity date	No maturity
Issuer call subject to prior supervisory approval	Yes
Optional call date, contingent call dates and redemption amount	not applicable
Subsequent call dates, if applicable	not applicable
Coupons / dividends	
Fixed or floating dividend/coupon	Floating dividend
Coupon rate and any related index	Part of the profit as reported in the adopted profit and loss account shall be used by the Executive Board to form or to add to the reserves to the extent that is deemed desirable by the Executive Board. Any remaining profit shall be distributed to the shareholders, unless the General Meeting decides otherwise. The General Meeting may at any time and for any reason decide to cancel dividends. The intention of the Statutory Directors is to have a stable dividend distribution per share.
Existence of a dividend stopper	No
Fully discretionary, partially discretionary or mandatory (in terms of timing)	Fully discretionary
Fully discretionary, partially discretionary or mandatory (in terms of amount)	Fully discretionary
Existence of step up or other incentive to redeem	No
Noncumulative or cumulative	Noncumulative
Convertible or non-convertible	Non-convertible
If convertible, conversion trigger(s)	Not applicable
If convertible, fully or partially	Not applicable
If convertible, conversion rate	Not applicable
If convertible, mandatory or optional conversion	Not applicable
If convertible, specify instrument type convertible into	Not applicable
If convertible, specify issuer of instrument it converts into	Not applicable
Write-down features	No
If write-down, write-down trigger(s)	Not applicable
If write-down, full or partial	Not applicable
If write-down, permanent or temporary	Not applicable
If temporary write-down, description of write-up mechanism	Not applicable
Position in subordination hierarchy in liquidation (specify instrument type immediately senior to instrument)	The shares are immediate subordinated to the claims of depositors and the unsubordinated claims with respect to the repayment of borrowed money.
Non-compliant transitioned features	Not applicable
If yes, specify non-compliant features	Not applicable

The calculation of the Common Equity Tier 1 ratio and the total capital ratio is based on the reporting requirement under the Capital Requirement Directive (CRD) and Capital Requirement Regulation (CRR).

in thousands of EUR	2019	2018[2)]
The tier 1 capital, tier 2 capital and total capital can be specified as follows:	**Amount at disclosure date**	**Amount at disclosure date**
Capital instruments and the related share premium accounts of which: ordinary shares	918,714	865,059
Retained earnings[1]	203,772	178,336
Accumulated other comprehensive income (and other reserves, to include unrealised gains and losses under the applicable accounting standards)	38,462	33,844
Independently reviewed interim profits net of any foreseeable charge or dividend[1]	–	–
Common Equity Tier 1 (CET1) capital before regulatory adjustments	**1,160,949**	**1,077,239**
Additional value adjustments	–3,990	–4,067
Intangible assets (net of related tax liability)	–35,502	–33,335
Deferred tax assets that rely on future profitability excluding those arising from temporary differences (net of related tax liability where the conditions in CRR Article 38 (3) are met)	–7,802	–8,601
Direct and indirect holdings of own CET1 instruments (incl actual or contingent obligations to purchase own CET1 instruments)	–28,200	–28,200
Regulatory adjustments relating to unrealised gains and losses pursuant to CRR Articles 467 and 468	0	0
Of which: adjustment for unrealised gains on participating interests	0	0
Of which: adjustment for unrealised gains on property	0	0
Total regulatory adjustments to Common Equity Tier 1 (CET1)	**–75,494**	**–74,203**
Common Equity Tier 1 (CET1) capital	**1,085,455**	**1,003,036**
Additional Tier 1 (AT1) capital	**0**	**0**
Tier 1 capital (T1 = CET1 + AT1)	**1,085,455**	**1,003,036**
Capital instruments and the related share premium accounts	0	0
Tier 2 (T2) capital before regulatory adjustments	**0**	**0**
Tier 2 (T2) capital	**0**	**0**
Total capital (TC = T1 + T2)	**1,085,455**	**1,003,036**
Total risk weighted assets	**6,067,038**	**5,746,208**
Capital ratios and buffers		
Common Equity Tier 1 (as a percentage of risk exposure amount)	17.9%	17.5%
Tier 1 (as a percentage of risk exposure amount)	17.9%	17.5%
Total capital (as a percentage of risk exposure amount)	17.9%	17.5%
Institution specific buffer requirement (CET1 requirement in accordance with CRR article 92 (1) (a) plus capital conservation and countercyclical buffer requirements, plus systemic risk buffer, plus the systemically important institution buffer (G-SII or O-SII buffer), expressed as a percentage of risk exposure amount)	2.7%	2.0%
of which: capital conservation buffer requirement	2.5%	1.9%
of which: countercyclical buffer requirement	0.2%	0.1%
Common Equity Tier 1 available to meet buffers (as a percentage of risk exposure amount)	9.9%	9.5%

Amounts below the thresholds for deduction (before risk weighting)		
Direct and indirect holdings of the capital of financial sector entities where the institution does not have a significant investment in those entities (amount below 10% threshold)	16,706	16,325
Direct and indirect holdings by the institution of the CET 1 instruments of financial sector entities where the institution has a significant investment in those entities (amount below 10% threshold)	0	0
Deferred tax assets arising from temporary differences (amount below 10% threshold, net of related tax liability where the conditions in Article 38 (3) are met)	7,592	8,890

[1)] Retained earnings are only recognised in the Tier 1 capital after the formal decision of the share holder confirming the final profit or loss of the institution for the year.
[2)] Prior year amounts were subject to accounting principle changes. For explanations see the general accounting principles in the annual report 2019 of Triodos Bank N.V..

Overview of Risk Weighted Assets

in thousands of EUR	Risk Weighted Assets Q4 2019	Q3 2019	Minimum capital requirements Q4 2019
Credit risk (excluding Counterparty Credit Risk)	5,535,333	5,744,773	442,827
Of which the standardised approach	5,535,333	5,744,773	442,827
Counterparty Credit Risk	13,771	17,526	1,102
Of which CVA	3,326	4,378	266
Market risk	30,982	26,913	2,479
Operational risk	486,952	452,578	38,956
Of which the basic indicator approach	486,952	452,578	38,956
Amounts below the thresholds for deduction (subject to 250% risk weight)	18,980	21,768	1,518
Total	**6,067,038**	**6,241,790**	**485,363**

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Total And Average Net Amount Of Exposures

The tables below display the net carrying values at the end of the year per exposure class. Next to it the average net carrying value per the same exposure classes over the past 4 quarters is provided. This average net carrying value is based upon the last 4 quarter end observations in the year 2019 resp. 2018. The net carrying values correspond to the original exposure (on and off-balance) pre-credit conversion factors corrected for allowances, impairments and provisions.

2019 in thousands of EUR	**Net Value Of Exposures At The End Of The Year**	**Average Net Exposures Over The Period**
Exposure Class:		
Central Governments or Central Banks	2,663,720	2,473,705
Regional Governments or Local Authorities	912,749	879,202
Public Sector Entities	255,440	164,852
Multilateral Developments Banks	12,047	59,339
Institutions	332,191	427,091
Corporates	4,084,625	4,189,374
Of Which: SMEs	3,138,480	3,175,298
Retail Exposures	676,660	748,929
Of Which: SMEs	395,681	356,391
Secured By Mortgages On Immovable Property	4,153,004	3,652,013
Of Which: SMEs	1,671,803	1,605,626
Exposures In Default	107,693	109,863
Items Associated With Particularly High Risk	93,339	50,668
Covered Bonds	11,843	5,921
Equity Exposures	17,226	16,285
Other Exposures	208,905	196,085
Total (= Total Standardised Approach)	**13,529,443**	**12,973,328**

2018[1)] in thousands of EUR	**Net Value Of Exposures At The End Of The Year**	**Average Net Exposures Over The Period**
Exposure Class:		
Central Governments or Central Banks	2,283,690	2,158,772
Regional Governments or Local Authorities	845,655	1,005,550
Public Sector Entities	74,264	76,703
Multilateral Developments Banks	106,631	119,294
Institutions	521,992	537,165
Corporates	4,294,122	4,006,830
Of Which: SMEs	3,212,116	2,601,847
Retail Exposures	821,198	734,210
Of Which: SMEs	317,101	277,050
Secured By Mortgages On Immovable Property	3,151,022	2,797,452
Of Which: SMEs	1,539,448	1,368,240
Exposures In Default	112,034	130,268
Items Associated With Particularly High Risk	7,996	7,213
Covered Bonds	0	0
Equity Exposures	15,345	13,736
Other Exposures	183,265	170,767
Total (= Total Standardised Approach)	**12,417,213**	**11,757,960**

1) Prior year amounts were subject to accounting principle changes. For explanations see the general accounting principles in the annual report 2019 of Triodos Bank N.V..

The net value of exposures is a sum of:
- Assets excluding intangible assets, excluding discount of subordinated liabilities (included under prepayments and accrued income) and after deducting discount of bonds (included under accruals and deferred income);
- Off-balance sheet items, consisting of contingent liabilities and irrevocable facilities;
- Derivatives, valued at the credit risk equivalent, which is based on the net replacement costs plus potential future credit exposures.

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Countercyclical buffer

The general credit risk exposure value is the exposure value after credit risk mitigation and after conversion factor for off balance exposures. This value relates to all exposure classes excluding central governments and central banks, regional governments and local authorities, public sector entities, multilateral development banks and institutions.

2019 in thousands of EUR	**General credit exposure values**	**Own funds requirements**	**Own funds requirements weights**	**Countercyclical capital buffer rate**
Country:				
Austria	11	1	0.0%	0.00%
Australia	3	0	0.0%	0.00%
Belgium	1,516,457	75,668	17.4%	0.00%
Switzerland	16	1	0.0%	0.00%
Chile	209	6	0.0%	0.00%
Germany	553,904	33,259	7.6%	0.00%
Denmark	5,531	430	0.1%	1.00%
Spain	1,433,228	71,248	16.3%	0.00%
France	479,514	36,093	8.3%	0.25%
United Kingdom	1,253,038	70,295	16.2%	1.00%
Greece	6	0	0.0%	0.00%
Ireland	40,449	3,040	0.7%	1.00%
Italy	136	11	0.0%	0.00%
Jordan	6	0	0.0%	0.00%
Luxembourg	18,076	1,630	0.4%	0.00%
The Netherlands	3,253,053	142,114	32.7%	0.00%
Norway	103	8	0.0%	2.50%
New Zealand	0	0	0.0%	0.00%
Sweden	53	4	0.0%	2.50%
United States	13,168	1,053	0.2%	0.00%
Other countries	14	1	0.0%	0.00%
Total	**8,566,977**	**434,862**	**100%**	**0.190448%**

2018[1)] in thousands of EUR	**General credit exposure values**	**Own funds requirements**	**Own funds requirements weights**	**Countercyclical capital buffer rate**
Country:				
Australia	1	0	0.0%	0.00%
Belgium	1,119,823	70,290	16.9%	0.00%
Switzerland	190	6	0.0%	0.00%
Chile	215	6	0.0%	0.00%
Germany	496,251	33,994	8.2%	0.00%
Denmark	4,313	345	0.1%	0.00%
Spain	1,456,946	81,971	19.7%	0.00%
France	533,988	42,113	10.1%	0.00%
United Kingdom	1,024,526	50,273	12.1%	1.00%
Greece	6	0	0.0%	0.00%
Ireland	40,189	3,122	0.8%	0.00%
Italy	132	11	0.0%	0.00%
Luxembourg	8,066	800	0.2%	0.00%
The Netherlands	2,419,052	131,191	31.6%	0.00%
Norway	102	8	0.0%	2.00%
New Zealand	2	0	0.0%	0.00%
Sweden	52	4	0.0%	2.00%
United States	12,770	1,022	0.2%	0.00%
Other countries	41	3	0.0%	0.00%
Total	**7,116,664**	**415,160**	**100.00%**	**0.121152%**

1) Prior year amounts were subject to accounting principle changes. For explanations see the general accounting principles in the annual report 2019 of Triodos Bank N.V..

Amount of institution-specific countercyclical capital buffer

in thousands of EUR	**2019**
Total risk exposure amount	6,067,038
Triodos Bank specific countercyclical capital buffer rate	0.190448%
Transitional provisions applicable percentage	100.0%
Triodos Bank specific countercyclical capital buffer requirement	11,555

in thousands of EUR	**2018**[1)]
Total risk exposure amount	5,746,208
Triodos Bank specific countercyclical capital buffer rate	0.121152%
Transitional provisions applicable percentage	75.0%
Triodos Bank specific countercyclical capital buffer requirement	5,221

1) Prior year amounts were subject to accounting principle changes. For explanations see the general accounting principles in the annual report 2019 of Triodos Bank N.V..

Geographical Breakdown Of Exposures

The table below presents a breakdown of net carrying value of exposures and their totals by geographical areas and exposure classes under the SA approach.

2019 in thousands of EUR	**Belgium**	**Germany**	**Spain**	**France**	**United Kingdom**	**The Netherlands**	**Other Countries**	**Total Standardised Approach**
Central Governments or Central Banks	399,630	100,700	326,680	358	358,312	1,478,039	0	2,663,720
Regional Governments or Local Authorities	105,128	178,531	307,552	791	0	320,746	0	912,749
Public Sector Entities	10,715	87,407	85,378	0	6,183	65,758	0	255,440
Multilateral Development Banks	0	0	0	0	0	0	12,047	12,047
Institutions	62,533	51,873	56,099	2,760	31,214	126,490	1,221	332,191
Corporates	1,063,943	347,616	536,335	465,082	528,421	1,067,299	75,929	4,084,625
Retail	145,357	11,477	123,047	14,097	97,975	282,313	2,394	676,660
Secured By Mortgages On Immovable Property	370,735	222,350	847,458	16,187	665,232	2,028,822	2,219	4,153,004
Exposures In Default	9,455	7,541	38,277	1,976	25,561	23,276	1,605	107,693
Items Associated With Particularly High Risk	25,948	0	100	59,120	3,434	0	4,737	93,339
Covered Bonds	0	0	0	0	11,843	0	0	11,843
Equity Exposures	543	50	0	140	0	861	15,631	17,226
Other Exposures	0	0	0	0	17,120	191,785	0	208,905
Total (= Total Standardised Approach)	**2,193,987**	**1,007,546**	**2,320,927**	**560,512**	**1,745,297**	**5,585,390**	**115,784**	**13,529,443**

2018[1)] in thousands of EUR	**Belgium**	**Germany**	**Spain**	**France**	**United Kingdom**	**The Netherlands**	**Other Countries**	**Total Standardised Approach**
Central Governments or Central Banks	265,229	78,664	301,952	0	154,331	1,482,395	1,119	2,283,690
Regional Governments or Local Authorities	85,514	90,541	351,777	873	0	316,950	0	845,655
Public Sector Entities	0	0	0	0	0	74,264	0	74,264
Multilateral Development Banks	0	0	0	0	0	0	106,631	106,631
Institutions	58,919	130,903	85,538	3,152	86,202	156,301	977	521,992
Corporates	1,047,481	383,768	740,096	611,599	444,561	1,020,773	45,843	4,294,122
Retail	182,042	8,818	118,071	9,574	30,181	470,190	2,322	821,198
Secured By Mortgages On Immovable Property	293,059	151,827	728,416	7,987	649,998	1,316,629	3,106	3,151,021
Exposures In Default	10,075	8,426	42,757	0	14,890	34,888	998	112,034
Items Associated With Particularly High Risk	0	0	100	301	3,291	0	4,304	7,996
Covered Bonds	0	0	0	0	0	0	0	0
Equity Exposures	20	50	0	136	0	932	14,207	15,345
Other Exposures	1,031	764	1,935	0	1,117	178,419	0	183,265
Total (= Total Standardised Approach)	**1,943,368**	**853,763**	**2,370,642**	**633,621**	**1,384,572**	**5,051,742**	**179,507**	**12,417,213**

[1)] Prior year amounts were subject to accounting principle changes. For explanations see the general accounting principles in the annual report 2019 of Triodos Bank N.V..

Concentration Of Exposures By Industry Or Counterparty Types

The table below presents a breakdown of net carrying value of exposures and their totals by industry and exposure class under the SA approach.

2019 in thousands of EUR	**Banks and financial intermediation**	**Services**	**Healthcare and social work**	**Utilities**	**Public Administration**	**Private individuals**	**Real estate**	**Other sectors**	**Total**
Central Governments or Central Banks	2,269,282	0	0	0	394,082	0	0	356	2,663,720
Regional Governments or Local Authorities	0	8,120	306	0	566,367	0	17,544	320,411	912,749
Public Sector Entities	127,027	0	670	7,033	16,227	0	0	104,483	255,440
Multilateral Development Banks	12,047	0	0	0	0	0	0	0	12,047
Institutions	330,441	30	0	1,720	0	0	0	0	332,191
Corporates	34,808	393,308	320,772	1,751,893	0	173,459	605,960	804,426	4,084,625
Retail	8,751	33,919	86,495	34,168	0	216,253	41,141	255,933	676,660
Secured By Mortgages On Immovable Property	247,175	446,936	323,350	8,246	0	1,988,836	554,935	583,526	4,153,004
Exposures In Default	4,669	23,529	8,783	6,226	0	2,711	4,418	57,357	107,693
Items Associated With Particularly High Risk	8,536	0	0	0	0	0	72,684	12,120	93,339
Covered Bonds	11,843	0	0	0	0	0	0	0	11,843
Equity Exposures	17,226	0	0	0	0	0	0	0	17,226
Other Exposures	0	0	0	0	0	0	0	208,905	208,905
Total (= Total Standardised Approach)	**3,071,804**	**905,841**	**740,376**	**1,809,286**	**976,676**	**2,381,259**	**1,296,683**	**2,347,517**	**13,529,443**

2018[1)] in thousands of EUR	**Banks and financial inter-mediation**	**Services**	**Healthcare and social work**	**Utilities**	**Public Admini-stration**	**Private individuals**	**Real estate**	**Other sectors**	**Total**
Central Governments or Central Banks	1,793,953	0	0	0	489,737	0	0	0	2,283,690
Regional Governments or Local Authorities	0	8,519	311	0	463,426	0	0	373,400	845,655
Public Sector Entities	0	0	0	28,853	0	0	0	45,411	74,264
Multilateral Development Banks	106,631	0	0	0	0	0	0	0	106,631
Institutions	519,900	10	0	2,082	0	0	0	0	521,992
Corporates	8,619	373,157	253,282	1,950,416	0	212,140	714,668	781,839	4,294,122
Retail	0	26,770	71,644	29,173	0	448,133	33,700	211,778	821,198
Secured By Mortgages On Immovable Property	0	375,079	360,626	9,333	0	1,200,975	434,064	770,944	3,151,022
Exposures In Default	4,551	27,207	11,056	5,578	0	2,146	16,729	44,767	112,034
Items Associated With Particularly High Risk	4,705	0	0	3,291	0	0	0	0	7,996
Covered Bonds	0	0	0	0	0	0	0	0	0
Equity Exposures	14,845	0	0	0	0	0	0	500	15,345
Other Exposures	0	0	0	0	0	0	0	183,265	183,265
Total (= Total Standardised Approach)	**2,453,202**	**810,742**	**696,919**	**2,028,727**	**953,163**	**1,863,394**	**1,199,161**	**2,411,904**	**12,417,213**

[1)] Prior year amounts were subject to accounting principle changes. For explanations see the general accounting principles in the annual report 2019 of Triodos Bank N.V..

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Maturity Of Exposures

The following tables provide an overview of the remaining maturity of the assets per exposure class. The columns "on demand" and "no stated maturity" include accrued interest and fees, doubtful debt provisions and balance sheet items with no, or unknown, maturity.

2019 in thousands of EUR	**On Demand**	**<= 1 Year**	**> 1 Year <= 5 Years**	**> 5 Years**	**No Stated Maturity**	**Total**
Exposure Class:						
Central Governments or Central Banks	1,146	2,334,062	304,950	23,276	0	2,663,433
Regional Governments or Local Authorities	0	292,926	350,642	258,061	0	901,629
Public Sector Entities	0	62,932	106,912	85,596	0	255,440
Multilateral Developments Banks	0	12,047	0	0	0	12,047
Institutions	0	237,467	85,537	1,750	0	324,753
Corporates	2,935	299,018	554,797	2,565,677	0	3,422,426
Retail	5,144	46,507	64,712	385,827	0	502,190
Secured By Mortgages On Immovable Property	1,912	53,026	171,928	3,313,562	0	3,540,427
Exposures In Default	6,945	11,130	13,639	71,840	0	103,554
Items Associated With Particularly High Risk	0	0	0	0	39,263	39,263
Covered Bonds	0	0	11,843	0	0	11,843
Equity Exposures	0	0	0	0	17,226	17,226
Other Exposures	0	0	0	0	208,905	208,905
Total	**18,082**	**3,349,113**	**1,664,959**	**6,705,589**	**265,394**	**12,003,138**

2018[1)] in thousands of EUR	**On Demand**	**<= 1 Year**	**> 1 Year <= 5 Years**	**> 5 Years**	**No Stated Maturity**	**Total**
Exposure Class:						
Central Governments or Central Banks	1,712,978	177,917	348,745	43,914	0	2,283,555
Regional Governments or Local Authorities	0	252,612	258,059	324,020	0	834,692
Public Sector Entities	0	0	59,264	0	0	59,264
Multilateral Developments Banks	0	95,190	11,441	0	0	106,631
Institutions	165,503	156,381	171,331	23,179	0	516,394
Corporates	2,102	222,452	590,663	2,586,143	0	3,401,360
Retail	4,068	44,704	58,888	289,138	0	396,797
Secured By Mortgages On Immovable Property	3,403	33,184	85,820	2,761,724	0	2,884,131
Exposures In Default	10,693	24,631	8,621	65,540	0	109,484
Items Associated With Particularly High Risk	0	0	0	0	7,123	7,123
Covered Bonds	0	0	0	0	0	0
Equity Exposures	0	0	0	0	15,345	15,345
Other Exposures	0	0	0	0	183,265	183,265
Total	**1,898,747**	**1,007,071**	**1,592,832**	**6,093,658**	**205,733**	**10,798,041**

[1)] Prior year amounts were subject to accounting principle changes. For explanations see the general accounting principles in the annual report 2019 of Triodos Bank N.V..

Credit Risk Mitigation techniques – Overview

Credit risk mitigation relates to received collaterals (guarantees and pledged funds entrusted). As a result, the credit risk shifts from the exposure class of the direct counterparty to the exposure class of the collateral provider. This results in the fully adjusted exposure value for each exposure class.

The table below shows Triodos bank carrying amount of loans and debt securities. Exposures are presented as secured if there is a physical collateral, financial collateral or financial guarantee that covers the exposure partly or completely. Exposure with more than one collateral are allocated starting with the collateral type with the best quality.

2019 in thousands of EUR	Exposures unsecured – carrying amount	Exposures secured – Carrying amount	Exposures secured by collateral	Exposures secured by financial guarantees	Exposures secured by credit derivatives
Total loans	1,650,556	6,579,475	6,007,327	572,148	–
Total debt securities	865,440	167,210	0	167,210	–
Total exposures	**2,515,996**	**6,746,685**	**6,007,327**	**739,358**	**–**
Of which: defaulted	17,671	82,816	80,209	2,607	–

2018[1] in thousands of EUR	Exposures unsecured – carrying amount	Exposures secured – Carrying amount	Exposures secured by collateral	Exposures secured by financial guarantees	Exposures secured by credit derivatives
Total loans	2,175,813	5,162,918	4,719,948	442,970	–
Total debt securities	1,059,994	209,631	–	209,631	–
Total exposures	**3,235,807**	**5,372,549**	**4,719,948**	**652,601**	**–**
Of which: defaulted	37,985	64,890	59,110	5,780	–

[1] Prior year amounts were subject to accounting principle changes. For explanations see the general accounting principles in the annual report 2019 of Triodos Bank N.V..

Standardised approach – Credit risk exposure and credit risk mitigation effects

The table below shows how credit risk mitigation (CRM) is distributed over the exposure classes. Triodos' exposure value is shown before and after credit risk mitigation. There are two principal methods for reducing or mitigating Credit Risk: i) by reduction of Credit Risk through the acceptance of pledged financial assets as collateral or ii) mitigation or shifting of credit risks to a lower risk weighting group by accepting guarantees from unrelated third parties. Triodos Bank uses both methods to take CRM effects into account, based on the Credit Risk Standardised Approach.

The table below illustrates the effect of all CRM techniques applied in accordance with the Part Three, Title II, Chapter 4 of Regulation (EU) 575/2013 on the standardised approach capital requirements' calculations. Risk weights depend on the exposure class and the credit rating of the direct counterparty or the collateral provider. Risk weighted exposure amount (RWA) density provides a synthetic metric on riskiness of each portfolio.

The risk-weighted value is calculated by multiplying the fully adjusted exposure value with the risk weight and the conversion factor. The Capital Requirement Regulation (CRR) state the definition of the exposure classes, the conversion factors and the risk weights.

2019	Exposures before CCF and CRM		Exposures post CCF and CRM		RWAs and RWA density	
in thousands of EUR	On-balance-sheet amount	Off-balance-sheet amount	On-balance-sheet amount	Off-balance-sheet amount	RWAs	RWA density
Exposure class:						
Central governments or central banks	2,663,433	287	3,052,552	22,215	0	0.0%
Regional governments or local authorities	901,629	11,119	1,230,107	14,139	3,880	0.3%
Public sector entities	255,440	0	215,396	0	14,542	6.8%
Multilateral development banks	12,047	0	12,047	0	0	0.0%
Institutions	324,753	24	369,940	12	91,870	24.8%
Corporates	3,422,426	653,236	2,937,392	280,548	3,175,891	98.7%
Retail exposures	502,190	174,470	450,694	81,586	345,052	64.8%
Secured by mortgages on immovable property	3,540,428	612,576	3,369,572	302,662	1,488,999	40.5%
Exposures in default	103,554	4,139	97,487	2,008	110,088	110.6%
Items associated with particularly high risk	39,263	54,076	29,976	15,305	67,922	150.0%
Covered Bonds	11,843	0	11,843	0	1,184	10.0%
Equity exposures	17,226	0	17,226	0	17,226	100.0%
Other exposures	208,905	0	208,905	0	218,679	104.7%
Total	**12,003,138**	**1,509,928**	**12,003,138**	**718,475**	**5,535,333**	**43.5%**

2018[1]	Exposures before CCF and CRM		Exposures post CCF and CRM		RWAs and RWA density	
in thousands of EUR	On-balance-sheet amount	Off-balance-sheet amount	On-balance-sheet amount	Off-balance-sheet amount	RWAs	RWA density
Exposure class:						
Central governments or central banks	2,283,555	136	2,826,252	46,882	0	0.0%
Regional governments or local authorities	834,692	10,964	1,177,168	14,953	4,100	0.3%
Public sector entities	59,264	15,000	29,264	7,500	7,353	20.0%
Multilateral development banks	106,631	0	106,631	0	0	0.0%
Institutions	516,394	10	340,224	68	86,286	25.4%
Corporates	3,401,361	884,142	2,936,265	445,117	3,347,015	99.0%
Retail exposures	396,797	424,401	354,626	209,194	382,131	67.8%
Secured by mortgages on immovable property	2,884,131	266,890	2,718,375	133,533	1,107,145	38.8%
Exposures in default	109,484	2,550	103,503	1,263	122,907	117.3%
Items associated with particularly high risk	7,123	873	7,123	437	11,339	150.0%
Covered Bonds	0	0	0	0	0	0.0%
Equity exposures	15,345	0	15,345	0	15,345	100.0%
Other exposures	183,265	0	183,265	0	194,997	106.4%
Total	**10,798,040**	**1,604,967**	**10,798,040**	**858,946**	**5,278,619**	**45.3%**

[1] Prior year amounts were subject to accounting principle changes. For explanations see the general accounting principles in the annual report 2019 of Triodos Bank N.V..

Standardised approach

The table below presents the breakdown, post conversion factor and post risk mitigation techniques, of exposures under the Standardised approach by exposure class and risk weight (corresponding to the riskiness attributed to the exposure according to SA approach). The risk weights presented encompass all those assigned to each credit quality step in Article 113 to Article 134 in Part Three, Title II, Chapter 2 of Regulation (EU) 575/2013.

2019					**Risk weight**							**Of which:**
in thousands of EUR	**0%**	**10%**	**20%**	**35%**	**50%**	**75%**	**100%**	**150%**	**250%**	**Deducted**	**Total**	**unrated**
Exposure class:												
Central governments or central banks	3,074,767	0	0	0	0	0	0	0	0	0	3,074,767	3,074,767
Regional governments or local authorities	1,224,844	0	19,402	0	0	0	0	0	0	0	1,244,246	1,244,088
Public sector entities	172,785	0	22,544	0	20,067	0	0	0	0	0	215,396	202,719
Multilateral development banks	12,047	0	0	0	0	0	0	0	0	0	12,047	12,047
Institutions	0	0	311,116	0	58,381	0	456	0	0	0	369,953	285,980
Corporates	0	0	16,972	0	11,230	0	3,189,738	0	0	0	3,217,940	3,217,893
Retail exposures	0	0	0	0	0	532,279	0	0	0	0	532,279	532,279
Secured by mortgages on immovable property	0	0	0	2,547,950	922,239	0	202,046	0	0	0	3,672,235	3,672,235
Exposures in default	0	0	0	0	0	0	78,311	21,184	0	0	99,496	99,496
Items associated with particularly high risk	0	0	0	0	0	0	0	45,281	0	0	45,281	45,281
Covered Bonds	0	11,843	0	0	0	0	0	0	0	0	11,843	10,659
Equity exposures	0	0	0	0	0	0	17,226	0	0	0	17,226	17,226
Other exposures	1,615	0	0	0	0	0	199,699	0	7,592	49,344	208,905	208,905
Total	**4,486,058**	**11,843**	**370,034**	**2,547,950**	**1,011,917**	**532,279**	**3,687,476**	**66,465**	**7,592**	**49,344**	**12,721,614**	**12,623,576**

2018[1)]					**Risk weight**							**Of which:**
in thousands of EUR	**0%**	**10%**	**20%**	**35%**	**50%**	**75%**	**100%**	**150%**	**250%**	**Deducted**	**Total**	**unrated**
Exposure class:												
Central governments or central banks	2,873,134	0	0	0	0	0	0	0	0	0	2,873,134	2,873,134
Regional governments or local authorities	1,171,621	0	20,499	0	0	0	0	0	0	0	1,192,120	1,191,946
Public sector entities	0	0	36,764	0	0	0	0	0	0	0	36,764	36,764
Multilateral development banks	106,631	0	0	0	0	0	0	0	0	0	106,631	106,631
Institutions	0	0	279,536	0	60,756	0	0	0	0	0	340,292	259,943
Corporates	0	0	20,523	0	12	0	3,360,846	0	0	0	3,381,381	3,347,700
Retail exposures	0	0	0	0	0	563,820	0	0	0	0	563,820	563,820
Secured by mortgages on immovable property	0	0	0	1,766,622	1,077,531	0	7,755	0	0	0	2,851,908	2,851,908
Exposures in default	0	0	0	0	0	0	68,484	36,282	0	0	104,766	104,766
Items associated with particularly high risk	0	0	0	0	0	0	0	7,560	0	0	7,560	7,560
Covered Bonds	0	0	0	0	0	0	0	0	0	0	0	0
Equity exposures	0	0	0	0	0	0	15,345	0	0	0	15,345	15,345
Other exposures	1,603	0	0	0	0	0	172,773	0	8,890	47,025	183,265	183,265
Total	**4,152,989**	**0**	**357,322**	**1,766,622**	**1,138,299**	**563,820**	**3,625,203**	**43,842**	**8,890**	**47,025**	**11,656,986**	**11,542,783**

[1)] Prior year amounts were subject to accounting principle changes. For explanations see the general accounting principles in the annual report 2019 of Triodos Bank N.V..

Credit quality of exposures by exposure class

Defaulted exposures are exposures that Triodos Bank expects will not be fully repaid, in accordance with the original loan contract, or loans overdue in excess of 90 days. Provisions for loan losses are taken for doubtful debtors based on the difference between the total amount of the debtor's outstanding liability to Triodos Bank and future expected cash flows, discounted at the original effective interest rate of the contract.

2019 in thousands of EUR	Gross carrying values of Defaulted exposures a	 Non-defaulted exposures b	Specific credit risk adjustment c	General credit risk adjustment d	Accumulated write-offs e	Credit risk adjustment charges of the period	Net values (a+b-c-d)
Exposure class:							
Central governments or central banks	0	2,663,720	0	0	0	0	2,663,720
Regional governments or local authorities	0	913,123	374	0	0	0	912,749
Public sector entities	0	255,491	51	0	0	0	255,440
Multilateral developments banks	0	12,047	0	0	0	0	12,047
Institutions	3,916	332,192	1	0	0	0	336,107
Corporates	96,348	4,087,257	2,631	0	5,399	–2,343	4,180,973
Of which: SMEs	72,928	3,140,590	2,110	0	4,144	–1,798	3,211,408
Retail exposures	34,321	677,146	486	0	1,821	–790	710,981
Of which: SMEs	29,018	395,971	290	0	1,562	–678	424,699
Secured by mortgages on immovable property	0	4,155,719	2,715	0	1,917	–832	4,153,004
Of which: SMEs	0	1,672,797	0	0	1,514	–657	1,672,797
Exposures in default	134,586	0	26,893	0	9,137	–3,965	107,693
Items associated with particularly high risk	0	94,049	710	0	0	0	93,339
Covered Bonds	0	11,843	0	0	0	0	11,843
Equity exposures	0	17,226	0	0	0	0	17,226
Other exposures	0	208,905	0	0	0	0	208,905
Total (= Total standardised approach)	**134,586**	**13,428,717**	**33,860**	**0**	**9,137**	**–3,965**	**13,529,443**
Of which: Loans	128,649	8,135,139	33,757	0	9,137	–3,965	8,230,031
Of which: debt securities	0	1,032,650	0	0	0	0	1,032,650
Of which: Off-balance sheet exposures	4,185	1,505,759	16	0	0	0	1,509,928

2018[1)] in thousands of EUR	Gross carrying values of Defaulted exposures a	 Non-defaulted exposures b	Specific credit risk adjustment c	General credit risk adjustment d	Accumulated write-offs e	Credit risk adjustment charges of the period	Net values (a+b-c-d)
Exposure class:							
Central governments or central banks	0	2,283,690	0	0	0	0	2,283,690
Regional governments or local authorities	0	846,095	439	0	0	0	845,655
Public sector entities	0	74,321	57	0	0	0	74,264
Multilateral developments banks	0	106,631	0	0	0	0	106,631
Institutions	4,551	521,992	1	0	0	0	526,543
Corporates	64,293	4,296,916	2,795	0	7,717	–1,805	4,358,415
Of which: SMEs	50,358	3,214,390	2,274	0	6,334	–1,552	3,262,475
Retail exposures	19,856	821,663	465	0	0	–70	841,054
Of which: SMEs	17,453	317,387	286	0	0	0	334,555
Secured by mortgages on immovable property	57,037	3,153,414	2,392	0	5,845	–1,638	3,208,059
Of which: SMEs	45,044	1,541,329	1,881	0	4,336	–1,215	1,584,492
Exposures in default	145,738	0	33,703	0	13,562	–3,513	112,035
Items associated with particularly high risk	0	7,996	0	0	0	0	7,996
Covered Bonds	0	0	0	0	0	0	0
Equity exposures	0	15,345	0	0	0	0	15,345
Other exposures	0	183,265	0	0	0	0	183,265
Total (= Total standardised approach)	**145,738**	**12,311,327**	**39,851**	**0**	**13,562**	**–3,513**	**12,417,213**
Of which: Loans	136,617	7,241,269	39,156	0	13,562	–3,513	7,338,730
Of which: debt securities	0	1,269,625	0	0	0	0	1,269,625
Of which: Off-balance sheet exposures	2,565	1,602,417	15	0	0	0	1,604,967

[1)] Prior year amounts were subject to accounting principle changes. For explanations see the general accounting principles in the annual report 2019 of Triodos Bank N.V..

Ageing of past-due exposures

The table below gives an insight in the aging of the Business and Consumer exposures and includes both the performing and nonperforming portfolio. The table is broken down into type of instruments (Loans and Debt Securities). The values displayed are the on balance sheet gross carrying values before impairment, provisions and before write offs, as write offs take place after the provisioning process.

2019 in thousands of EUR	=< 30 days	> 30 days =< 60 days	> 60 days =< 90 days	> 90 days =< 180 days	> 180 days =< 1 year	> 1 year
Loans	28,371	3,430	476	6,877	9,586	31,650
Debt securities	–	–	–	–	–	–
Total exposures	**28,371**	**3,430**	**476**	**6,877**	**9,586**	**31,650**

2018 in thousands of EUR	=< 30 days	> 30 days =< 60 days	> 60 days =< 90 days	> 90 days =< 180 days	> 180 days =< 1 year	> 1 year
Loans	25,437	9,148	1,390	9,718	2,606	33,370
Debt securities	–	–	–	–	–	–
Total exposures	**25,437**	**9,148**	**1,390**	**9,718**	**2,606**	**33,370**

Non-performing and forborne exposures

A forborne exposure is an exposure where a concession is given towards a debtor facing or about to face difficulties in meeting its financial commitments, that would not have been granted had the debtor not been in financial difficulties.

	Gross carrying amount							Accumulated impairment and provisions and negative fair value adjustments due to credit risk				Collaterals and financial guarantees received	
					Of which: non-performing			On performing exposures		On non-performing exposures			
2019 in thousands of EUR	Total performing and non-performing exposures	Of which: performing but past due > 30 days and <= 90 days	Of which: performing forborne	Total non-performing	Of which: defaulted	Of which: impaired	Of which: forborne	On performing exposures	Of which: forborne	On non- p	Of which: forborne	On non-performing exposures	Of which: forborne exposures
Debt securities	1,032,650	0	0	0	0	0	0	0	0	0	0	0	0
Loans and advances	8,263,788	1,382	44,680	164,364	128,649	98,875	103,252	5,453	0	28,304	14,773	112,252	104,622
Off-balance-sheet exposures	1,509,944	0	1,913	5,192	4,185	0	1,994	0	0	16	0	57	0

	Gross carrying amount							Accumulated impairment and provisions and negative fair value adjustments due to credit risk				Collaterals and financial guarantees received	
					Of which: non-performing			On performing exposures		On non-performing exposures			
2018[1)] in thousands of EUR	Total performing and non-performing exposures	Of which: performing but past due > 30 days and <= 90 days	Of which: performing forborne	Total non-performing	Of which: defaulted	Of which: impaired	Of which: forborne	On performing exposures	Of which: forborne	On non- p	Of which: forborne	On non-performing exposures	Of which: forborne exposures
Debt securities	1,269,625	0	0	0	0	0	0	0	0	-	0	0	0
Loans and advances	7,377,886	1,442	16,673	153,640	136,617	98,645	83,052	5,414	0	33,742	18,433	75,628	32,116
Off-balance-sheet exposures	1,604,982	0	848	2,565	2,565	0	2,074	0	0	15	0	0	0

[1)] Prior year amounts were subject to accounting principle changes. For explanations see the general accounting principles in the annual report 2019 of Triodos Bank N.V..

Changes in the general and specific credit risk adjustments for loans and advances

2019 in thousands of EUR	**Accumulated specific credit risk adjustment**
Opening balance	**39,156**
Increases due to amounts set aside for estimated loan losses during the period	10,417
Decreases due to amounts reversed for estimated loan losses during the period	–6,796
Decreases due to amounts taken against accumulated credit risk adjustments	–9,137
Impact of exchange rate differences	117
Business combinations, including acquisitions and disposals of sunsidiairies	0
Other adjustments	0
Closing balance	**33,757**
Recoveries on credit risk adjustments recorded directly to the statement of profit or loss	–219
Specific credit risk adjustments recorded directly to the statement of profit or loss	563

2018 in thousands of EUR	**Accumulated specific credit risk adjustment**
Opening balance	**50,291**
Increases due to amounts set aside for estimated loan losses during the period	8,571
Decreases due to amounts reversed for estimated loan losses during the period	–5,417
Decreases due to amounts taken against accumulated credit risk adjustments	–13,564
Impact of exchange rate differences	–30
Business combinations, including acquisitions and disposals of sunsidiairies	0
Other adjustments	–695
Closing balance	**39,156**
Recoveries on credit risk adjustments recorded directly to the statement of profit or loss	–103
Specific credit risk adjustments recorded directly to the statement of profit or loss	462

Changes in defaulted loans and advances

Defaulted and impaired loans are loans that Triodos Bank expects will not be fully repaid, in accordance with the original loan contract, and that are impaired. Provisions for loan losses are taken for these loans based on the difference between the total amount of the debtor's outstanding liability to Triodos Bank and future expected cash flows, discounted at the original effective interest rate of the contract.

2019 in thousands of EUR	**Gross carrying value defaulted exposures**
Opening balance	**136,617**
Loans and debt securities that have defaulted or impaired since last reporting period	35,512
Returned to non-defaulted status	–27,688
Amounts written off	–9,135
Other changes	–6,657
Closing balance	**128,649**

2018 in thousands of EUR	**Gross carrying value defaulted exposures**
Opening balance	**185,851**
Loans and debt securities that have defaulted or impaired since last reporting period	22,075
Returned to non-defaulted status	–42,026
Amounts written off	–13,474
Other changes	–15,809
Closing balance	**136,617**

Credit quality of exposures by geography

The table below represents the geographical breakdown of credit risk outstandings for loans and positions.

2019 in thousands of EUR	Gross carrying values of Defaulted exposures a	Non-defaulted exposures b	Specific credit risk adjustment c	General credit risk adjustment d	Accumulated write-offs e	Credit risk adjustment charges of the period	Net values (a+b-c-d)
Belgium	12,816	2,185,617	4,384	0	636	0	2,194,048
Germany	8,782	1,000,311	1,459	0	4,864	0	1,007,635
France	2,733	558,663	881	0	0	0	560,514
The Netherlands	30,518	5,564,476	8,353	0	431	0	5,586,641
Spain	50,750	2,285,607	14,059	0	3,204	0	2,322,298
United Kingdom	27,337	1,720,045	1,951	0	0	0	1,745,431
Other countries	1,650	113,998	2,773	0	3	–3,965	112,875
Total	**134,586**	**13,428,717**	**33,860**	**0**	**9,137**	**–3,965**	**13,529,443**

2018[1)] in thousands of EUR	Gross carrying values of Defaulted exposures a	Non-defaulted exposures b	Specific credit risk adjustment c	General credit risk adjustment d	Accumulated write-offs e	Credit risk adjustment charges of the period	Net values (a+b-c-d)
Belgium	14,233	1,933,667	4,533	0	921	–1,014	1,943,367
Germany	14,205	845,680	6,123	0	0	–505	853,762
France	0	633,754	133	0	0	0	633,621
The Netherlands	44,125	5,019,290	11,673	0	10,113	858	5,051,742
Spain	55,442	2,330,458	15,258	0	1,864	–3,197	2,370,642
United Kingdom	16,735	1,369,955	2,118	0	574	38	1,384,572
Other countries	998	178,523	13	0	90	307	179,508
Total	**145,738**	**12,311,326**	**39,851**	**0**	**13,562**	**–3,513**	**12,417,213**

[1)] Prior year amounts were subject to accounting principle changes. For explanations see the general accounting principles in the annual report 2019 of Triodos Bank N.V..

Credit quality of exposures by industry or counterparty type

The table below represents the economic sector breakdown of credit risk outstandings for loans and positions that have been classified as non-performing loans.

2019 in thousands of EUR	Gross carrying values of Defaulted exposures a	Non-defaulted exposures b	Specific credit risk adjustment c	General credit risk adjustment d	Accumulated write-offs e	Credit risk adjustment charges of the period	Net values (a+b-c-d)
Banks and financial intermediation	4,690	3,320,218	516	0	0	0	3,324,392
Basic materials	831	97,262	703	0	0	14	97,390
Building materials	3,402	15,111	1,657	0	0	0	16,857
Consumer products (non-food)	277	1,836	55	0	17	–46	2,058
Retail	901	34,858	103	0	64	4	35,656
Services	26,367	882,890	3,417	0	109	–1,196	905,841
Healthcare and social work	14,310	732,148	6,081	0	805	–86	740,376
Agriculture and fishing	20,699	151,273	2,738	0	1,200	–625	169,234
Media	1,445	111,467	265	0	261	27	112,648
Utilities	7,532	1,804,181	2,427	0	0	–189	1,809,286
Public Administration	0	976,676	0	0	0	0	976,676
Private individuals	2,884	2,379,889	1,514	0	0	–11	2,381,259
Leisure and tourism	23,663	180,110	5,437	0	6	301	198,337
Transport and logistics	705	38,593	56	0	30	0	39,242
Real estate	5,645	1,292,825	1,786	0	3	403	1,296,683
Food and beverages	11,431	102,406	3,099	0	5,902	–1,218	110,737
Other sectors	9,804	1,306,974	4,008	0	739	–1,326	1,312,771
Total	**134,586**	**13,428,717**	**33,860**	**0**	**9,137**	**–3,965**	**13,529,443**

2018[1)] in thousands of EUR	Gross carrying values of Defaulted exposures a	Non-defaulted exposures b	Specific credit risk adjustment c	General credit risk adjustment d	Accumulated write-offs e	Credit risk adjustment charges of the period	Net values (a+b-c-d)
Banks and financial intermediation	4,551	2,448,651	0	0	–	0	2,453,202
Basic materials	868	17,546	699	0	144	103	17,716
Building materials	3,315	14,225	1,670	0	–	0	15,870
Consumer products (non-food)	756	1,672	27	0	–	82	2,401
Retail	644	33,074	135	0	92	357	33,584
Services	28,731	784,064	2,053	0	504	–320	810,742
Healthcare and social work	17,888	686,422	7,390	0	480	78	696,919
Agriculture and fishing	22,092	154,344	3,373	0	197	–410	173,063
Media	3,805	109,927	533	0	90	–69	113,199
Utilities	6,695	2,024,580	2,548	0	4,585	15	2,028,727
Public Administration	0	953,163	0	0	–	0	953,163
Private individuals	2,445	1,862,506	1,557	0	–	–125	1,863,394
Leisure and tourism	25,110	155,089	5,785	0	4,477	–603	174,414
Transport and logistics	145	39,503	96	0	–	–13	39,552
Real estate	18,216	1,182,530	1,585	0	501	–130	1,199,161
Food and beverages	13,074	104,091	7,650	0	1,651	–1,326	109,515
Other sectors	–2,597	1,739,941	4,752	0	841	–1,152	1,732,591
Total	**145,738**	**12,311,328**	**39,851**	**0**	**13,562**	**–3,513**	**12,417,213**

[1)] Prior year amounts were subject to accounting principle changes. For explanations see the general accounting principles in the annual report 2019 of Triodos Bank N.V..

Analysis of counterparty credit risk exposure by approach

2019 in thousands of EUR	Replacement cost/current market value	Potential future credit exposure	EAD post CRM	RWAs
Market to market	9,656	6,721	16,377	10,446
Of which derivates and long settlement transactions			16,377	10,446
Total	**9,656**	**6,721**	**16,377**	**10,446**

2018 in thousands of EUR	Replacement cost/current market value	Potential future credit exposure	EAD post CRM	RWAs
Market to market	5,719	8,488	14,207	10,395
Of which derivates and long settlement transactions			14,207	10,395
Total	**5,719**	**8,488**	**14,207**	**10,395**

Credit valuation adjustment (CVA) capital charge

2019 in thousands of EUR	Exposure value	RWAs
All portfolios subject to the standardised method	13,089	3,326
Total subject to the CVA capital charge	**13,089**	**3,326**

2018 in thousands of EUR	Exposure value	RWAs
All portfolios subject to the standardised method	14,207	4,972
Total subject to the CVA capital charge	**14,207**	**4,972**

Impact of netting and collateral held on exposure values

2019 in thousands of EUR	Gross positive fair value or net carrying amount	Netting benefits	Netted current credit exposure	Collateral held	Net credit exposure
Derivatives	13,089	–	13,089	–	13,089
Total exposures	**13,089**	–	**13,089**	–	**13,089**

2018 in thousands of EUR	Gross positive fair value or net carrying amount	Netting benefits	Netted current credit exposure	Collateral held	Net credit exposure
Derivatives	14,207	–	14,207	–	14,207
Total exposures	**14,207**	–	**14,207**	–	**14,207**

Standardised approach - Counterparty credit risk exposures by regulatory portfolio and risk

2019 in thousands of EUR	0%	20%	Risk weight 50%	75%	100%	150%	Others	Total	Of which unrated
Central governments or central banks	0	0	0	0	0	0	0	0	0
Regional government or local authorities	0	0	0	0	0	0	0	0	0
Public sector entities	0	0	0	0	0	0	0	0	0
Multilateral development banks	0	0	0	0	0	0	0	0	0
International organisations	0	0	0	0	0	0	0	0	0
Institutions	0	7,414	0	0	0	0	0	7,414	0
Corporates	0	0	0	0	8,963	0	0	8,963	8,963
Retail	0	0	0	0	0	0	0	0	0
Institutions and corporates with a short-term credit assessment	0	0	0	0	0	0	0	0	0
Other items	0	0	0	0	0	0	0	0	0
Total	**0**	**7,414**	**0**	**0**	**8,963**	**0**	**0**	**16,377**	**8,963**

2018 in thousands of EUR	0%	20%	Risk weight 50%	75%	100%	150%	Others	Total	Of which unrated
Central governments or central banks	0	0	0	0	0	0	0	0	0
Regional government or local authorities	0	0	0	0	0	0	0	0	0
Public sector entities	0	0	0	0	0	0	0	0	0
Multilateral development banks	0	0	0	0	0	0	0	0	0
International organisations	0	0	0	0	0	0	0	0	0
Institutions	0	3,392	2,196	0	0	0	0	5,588	0
Corporates	0	0	0	0	8,619	0	0	8,619	8,619
Retail	0	0	0	0	0	0	0	0	0
Institutions and corporates with a short-term credit assessment	0	0	0	0	0	0	0	0	0
Other items	0	0	0	0	0	0	0	0	0
Total	**0**	**3,392**	**2,196**	**0**	**8,619**	**0**	**0**	**14,207**	**8,619**

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Encumbered and unencumbered assets

All amounts presented are median values of the previous four quarters of the reporting period

Assets can be differentiated between assets which are used to support funding or collateral needs (encumbered assets) and assets which are available for potential funding needs (unencumbered assets).

2019 in thousands of EUR (Median values)	**Carrying amount of encumbered assets**	**Fair value of encumbered assets**	**Carrying amount of unencumbered assets**	**Fair value of unencumbered assets**
Assets	**557,059**		**11,073,196**	
Loans on demand	927		2,315,609	
Equity instruments	0	0	22,171	22,171
Debt securities	82,228	86,199	985,055	1,008,368
Of which: covered bonds	0	0	0	0
Of which: asset-backed securities	0	0	0	0
Of which: issued by general governments	82,228	86,199	615,944	634,595
Of which: issued by financial corporations	0	0	283,200	285,277
Of which: issued by non-financial corporations	0	0	99,776	102,517
Loans and advances other than loans on demand	473,904		7,363,143	
Other assets	0		309,752	

2018 in thousands of EUR (Median values)	**Carrying amount of encumbered assets**	**Fair value of encumbered assets**	**Carrying amount of unencumbered assets**	**Fair value of unencumbered assets**
Assets	**102,674**		**10,332,053**	
Loans on demand	889		1,734,014	
Equity instruments	0	0	20,709	20,709
Debt securities	76,355	81,145	1,273,280	1,292,263
Of which: covered bonds	0	0	0	0
Of which: asset-backed securities	0	0	0	0
Of which: issued by general governments	76,355	81,145	796,658	814,887
Of which: issued by financial corporations	0	0	404,888	407,279
Of which: issued by non-financial corporations	0	0	71,734	70,097
Loans and advances other than loans on demand	20,512		7,125,711	
Other assets	0		233,644	

Equity instruments relate to balance sheet items shares and participating interests.
Debt securities relate to balance sheet items government paper and interest-bearing securities.
Carrying amounts are balance sheet amounts including premium on investments, discount on investments and accrued interest.

Collateral received

All amounts presented are median values of the previous four quarters of the reporting period

2019 in thousands of EUR	**Fair value of encumbered collateral received or own debt securities issued**	**Fair value of collateral received or own debt securities issued available for encumbrance**
Collateral received by the reporting institution	**0**	**0**
Loans on demand	0	0
Equity instruments		
Debt securities	0	0
Loans and advances other than loans on demand		
Other collateral received	0	0
Own debt securities issued other than own covered bonds or aset-backet securities	**0**	**0**
Own covered bonds and asset-backet securities issued and not yet pledged	**0**	**0**
Total assets, collateral received and own debt securities issued	**0**	**0**

2018 in thousands of EUR	**Fair value of encumbered collateral received or own debt securities issued**	**Fair value of collateral received or own debt securities issued available for encumbrance**
Collateral received by the reporting institution	**0**	**0**
Loans on demand	0	0
Equity instruments		
Debt securities	0	0
Loans and advances other than loans on demand		
Other collateral received	0	0
Own debt securities issued other than own covered bonds or aset-backet securities	**0**	**0**
Own covered bonds and asset-backet securities issued and not yet pledged	**0**	**0**
Total assets, collateral received and own debt securities issued	**0**	**0**

In 2019 and 2018 Triodos Bank did not hold any collateral received.

Sources of encumbrance

All amounts presented are median values of the previous four quarters of the reporting period

2019 in thousands of EUR	**Matching liabilities, contingent liabilities or securities lent**	**Assets, collateral received and own debt securities issued other than covered bonds and ABSs encumbered**
Derivatives	-	-
Loan commitments received	454,733	477,241
Other sources of encumbrance	78,906	81,974
Total sources of encumbrance	**533,094**	**557,059**

2018 in thousands of EUR	**Matching liabilities, contingent liabilities or securities lent**	**Assets, collateral received and own debt securities issued other than covered bonds and ABSs encumbered**
Derivatives	-	-
Loan commitments received	44,369	41,871
Other sources of encumbrance	63,176	60,803
Total sources of encumbrance	**107,545**	**102,674**

Liquidity coverage ratio, quantitative information

2019 in thousands of EUR	Total adjusted value 31.03.2019	 30.06.2019	 30.09.2019	 31.12.2019
Liquidity buffer	2,755,072	2,832,100	2,643,903	2,786,116
Total net cash outflows	1,281,486	1,306,370	1,333,493	1,186,149
Liquidity coverage ratio (%)	215%	217%	198%	235%

2018 in thousands of EUR	Total adjusted value 31.03.2018	 30.06.2018	 30.09.2018	 31.12.2018
Liquidity buffer	2,126,680	2,208,325	2,339,908	2,531,410
Total net cash outflows	953,285	970,890	1,035,188	1,108,847
Liquidity coverage ratio (%)	223%	227%	226%	228%

Net stable funding ratio, quantitative information

2019 in thousands of EUR	Unweighted value by residual maturity < 6 months	 6 months to < 1 year	 >= 1 year	Weighted value
Available stable funding	10,041,568	293,795	1,618,047	10,030,898
Required stable funding	4,904,899	536,081	8,115,669	7,079,877
Net stable funding ratio				**142%**

2018[1)] in thousands of EUR	Unweighted value by residual maturity < 6 months	 6 months to < 1 year	 >= 1 year	Weighted value
Available stable funding	8,865,749	327,798	1,569,411	8,978,436
Required stable funding	4,665,223	549,796	7,235,445	6,162,707
Net stable funding ratio				**146%**

[1)] Prior year amounts were subject to accounting principle changes. For explanations see the general accounting principles in the annual report 2019 of Triodos Bank N.V..

Leverage ratio

The Leverage ratio is a CRR/CRD IV measure indicating the level of the Tier 1 Capital compared to the total exposure. Its aim is to assess the risk of excessive leverage of the institution. The Leverage ratio has been calculated according to the Leverage ratio Delegated Act, The fully loaded leverage ratio of Triodos Bank based on the Delegated Act, and with notional cash pooling grossed is 8.5% at 31 December 2019.

Summary reconciliation of accounting assets and leverage ratio exposures

in thousands of EUR	2019	2018[1)]
Total assets as per published financial statements	12,060,298	10,850,078
Adjustment for derivative financial instruments	8,562	8,974
Adjustment for off-balance sheet items (ie conversion to credit equivalent amounts of off-balance sheet exposures)	718,475	858,953
Other adjustments	–49,345	–47,025
Leverage ratio total exposure measure	**12,737,990**	**11,670,980**

Leverage ratio common disclosure

in thousands of EUR	2019	2018[1)]
On Balance sheet items (excluding derivatives and securities financing transactions)		
On Balance sheet items (excluding derivatives and securities financing transactions, but including collateral)	12,052,483	10,844,845
Asset amounts deducted in determining Tier 1 capital	–49,345	–47,025
Total on balance sheet exposure (excluding derivatives and securities financing transactions) (d)	**12,003,138**	**10,797,820**
Derivatives exposures		
Replacement cost (mark to market-method)	9,656	5,719
Add-on amount for potential future exposure (mark to market-method)	6,721	8,488
Total derivatives exposure (e)	**16,377**	**14,207**
Off balance sheet exposures		
Off balance sheet exposures at gross notional amount	1,509,928	1,604,982
Adjustment for conversion to credit equivalent amounts	–791,453	–746,029
Total off balance sheet exposure (f)	**718,475**	**858,953**
Tier 1 capital (c)	**1,085,455**	**1,003,036**
Leverage ratio total exposure measure (g) (d+e+f)	**12,737,989**	**11,670,980**
Leverage ratio ultimo year (c/g)	**8.5%**	**8.6%**

[1)] Prior year amounts were subject to accounting principle changes. For explanations see the general accounting principles in the annual report 2019 of Triodos Bank N.V..
The leverage ratio is calculated using the transitional definition of the Tier 1 capital.
The leverage ratio is 8.5% (2018: 8.6%) using the fully phased-in definition of the tier 1 capital.

Split-up of on-balance sheet exposures (excluding derivatives and securities financing transactions)

in thousands of EUR	2019	2018[1)]
Total on balance sheet exposures (excluding derivatives and securities financing transactions), of which:	12,052,483	10,844,845
Trading book exposures	0	0
Banking book exposures, of which:	12,052,483	10,844,845
Covered bonds	11,843	0
Exposures treated as sovereigns	4,448,089	4,110,051
Exposures to regional governments, MDB, International organisations and PSE not treated as sovereings	62,013	29,264
Institutions	369,940	340,224
Secured by mortgages of immovable properties	3,369,572	2,718,375
Retail exposures	450,694	354,626
Corporate	2,937,392	2,936,265
Exposures in default	97,487	103,503
Other exposures (eg equity, securisations and other non-credit obligation assets)	305,453	252,538

[1)] Prior year amounts were subject to accounting principle changes. For explanations see the general accounting principles in the annual report 2019 of Triodos Bank N.V..

Management of excessive leverage
The risk of excessive leverage is managed inclusively in our capital management. We aim for a strong capital base, reducing this risk.

At the end of 2019 the leverage ratio is 8.5% (2018: 8.6%). The leverage ratio was mainly affected by growth of the on-balance positions and growth of equity.

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Securitisation exposures in the non-trading book

Triodos Bank N.V. holds only Traditional Simple, Transparant and Standardised (STS) securitisations. These securitisations on mortgages only do not cause a Significant Risk Transfer (SRT).

2019	Institution acts as originator					
in thousands of EUR	Traditional		Synthetic		Sub-total	
	STS		Non-STS			
		of which SRT		of which SRT		of which SRT
Total exposures	**794,092**	**0**	**0**	**0**	**794,092**	**0**
Retail (total)	794,092	0	0	0	794,092	0
residential mortgage	794,092	0	0	0	794,092	0
credit card	0	0	0	0	0	0
other retail exposures	0	0	0	0	0	0
re-securitisation	0	0	0	0	0	0
Wholesale (total)	0	0	0	0	0	0
loans to corporates	0	0	0	0	0	0
commercial mortgage	0	0	0	0	0	0
lease and receivables	0	0	0	0	0	0
other wholesale	0	0	0	0	0	0
re-securitisation	0	0	0	0	0	0