TRUST BANK[1]

1. Introduction

Trust bank is one of largest financial institutions headquartered in Trustland. The bank operates in 15 countries through its subsidiaries. The bank provides various banking services to individual and corporate clients in all countries. Total assets of the bank were €88.0 bn at the end of 2050 and net income was €1.02 bn. The institution is rated 'A' by Moody's and S&P.

The bank has multiple lines of business such as investment banking, corporate lending, commercial real estate lending, small business banking, leasing, consumer banking, and private banking services. Trust Bank operates in a competitive environment and continues to perform well compared to its peers.

Trust Bank has been recording strong and stable earnings performances since the year 2045. The pretax profit has grown by about 5% on an average in each year driven by strong asset quality and stable fee based income. As a result, the bank has been able to maintain high dividend payout. Trust bank intends to continue the current practice of maintaining high dividend payout of 80% of profit after tax.

Trust Bank performs a detailed assessment of its risk profile and capital requirements on an annual basis. The information below summarises the assessment for the year-end 2050.

Total assets	€ 88.0 billion (bn)
Net income	€ 1.02 bn
Tier 1 capital	€ 6.81 bn
Tier 2 capital	€ 4.22 bn
Basel I Tier (1) ratio	6.89%
Basel I Tier (1+2) ratio	11.17%
Basel II Tier (1) ratio	7.19%
Basel II Tier (1+2) ratio	11.63%
Economic capital	€ 5.22 bn

Trust Bank is of the view that it is adequately capitalised for the business model and the risk appetite as stated by the board of directors (board). The bank's capital ratios are higher than the minimum requirements prescribed under both Basel I and Basel II. The higher risk-sensitivity of Basel II has resulted in a better alignment of regulatory capital and bank's internal economic capital measure. Trust Bank's management believes that the bank's capital position provides sufficient flexibility to take advantage of acquisition opportunities, embark on a share buy back program when appropriate and pay dividends.

According to Trust Bank, its governance and risk management processes are state-of-the-art and in line with the requirements outlined in the more advanced approaches under Basel II. Trust Bank has adopted Foundation IRB approach for credit risk and Internal Models approach for market risk. The bank has chosen to apply The Standardised Approach for operational risk but expects to move over time to the Advanced Measurement Approach.

2. Business strategy and potential constraints

As part of its business strategy, the bank wishes to maintain a target return on equity at 15%. In order to enhance shareholder value and take advantage of opportunities that may

[1] A note prepared by a bank supervisor in the Trustland Supervisory Authority. This note has been prepared based on material contained in on-site exam reports, off-site data and submissions made by Trust Bank.

arise in the current environment, Trust Bank has redefined its business strategy for the next three years (2051-2053) by deciding to:

- Expand banking operations in emerging markets with high rates of growth. In executing this plan, the bank may enter into mergers and acquisitions, if favourable opportunities arise;
- Become a leading bank in the consumer banking business; and
- Achieve cost efficiency by taking advantage of 'A' rating. The bank will pursue a more efficient funding strategy and increase the securitisation volumes.

Risk factors

Trust Bank has identified three major risk factors that could cause results to differ, in some instances materially from anticipated or planned business strategy.

Economic environment

The profitability of Trust Bank could be affected by deteriorating overall economic conditions at the global and local levels, issues with regard to liquidity and asset quality, increased volatility of interest rates and equity prices, and higher cost of credit.

Reputational risk

Various issues may give rise to reputational risk and cause harm to the bank and its business prospects. These issues include appropriately dealing with potential conflict of interest, legal and regulatory requirements, money laundering laws and ethical issues.

Regulatory risk

The cross-border operations of Trust Bank are subject to different regulatory regimes, new legislation and changing accounting standards and interpretation thereof in many jurisdictions. The bank cannot anticipate the ultimate effect that such legislation might have on its results.

3. Corporate Governance

The board lays down the bank's key objectives and ensures that these are achieved. The board sets the risk appetite and approves the strategy, business objectives and risk management framework. The board is supported by four board committees - Board Risk Committee, the Audit Committee, the Nomination Committee and the Compensation Committee. Please refer to **Attachment 1 and 2** for further details regarding the roles and responsibilities of the board and board committees.

The board has adopted standards of "independence" for directors. Accordingly, the number inside directors (officials of the bank) cannot exceed four out of the total ten board members. The board has also adopted a formal policy relating to selection of directors to help ensure that the bank is able to attract outstanding persons as director nominees. The board has decided that approximately one fifth of the board member's compensation should be by way of equity compensation. Each board member sits on at least one committee. The board receives reports from the Committees on quarterly basis and undertakes an annual review of the committees' performance. Please refer to **Attachment 4** for details regarding reports submitted to the bank's board.

At the senior management level, the Group Executive Committee (GEC) ensures that the operations of the bank are run in accordance with the strategy approved by the board. The chief executive officer (CEO) is the chairman of GEC. Other members of GEC include the Group Chief Risk Officer (CRO), Group Chief Finance Officer (CFO) and senior executives from business divisions. The CRO is the head of the Risk Management Department (RMD) and chairs the Group Risk Committee (GRC) which is responsible for the management of credit, market, operational and other material risks. The CFO chairs Group Asset Liability Committee (GALCO) which manages the balance sheet and other finance functions such as

raising of capital, etc. Please refer to **Attachments 1 and 3** for further details of the roles and responsibilities of senior management committees.

4. Risk profile and risk management tools

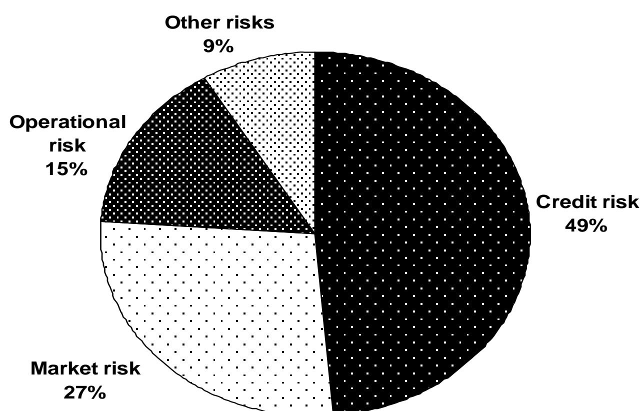
The RMD of Trust Bank undertakes a comprehensive risk identification process on an annual basis. The bank puts in place necessary mitigation tools to manage the identified risks. The result of this analysis for the financial year 2050 is as follows:

<table>
<tr><th>Significant Activities</th><th>Primary inherent risk(s)</th><th>Risk management and mitigants</th></tr>
<tr><td>Retail banking</td><td>▪ Credit risk
▪ Operational risk
▪ Interest rate risk in the banking book (IRRBB)
▪ Reputational risk</td><td rowspan="6">▪ Risks are mitigated through appropriate policies and limits.
▪ Specific techniques are employed to manage the following risks:
➢ Credit risk (credit scoring/rating system, portfolio management and stress test)
➢ Market risk (VaR and stress test)
➢ IRRBB (stress test)
➢ Liquidity (stress test)

▪ The economic capital model is used for measuring and aggregation of risks across all business lines (see Figure 1).

▪ The above tools are continually assessed to ensure their appropriateness and reliability.</td></tr>
<tr><td>Corporate banking</td><td>▪ Credit risk including credit concentration risk
▪ Operational risk
▪ Reputational risk</td></tr>
<tr><td>Funding</td><td>▪ Liquidity risk</td></tr>
<tr><td>Derivatives</td><td>▪ Credit risk
▪ Market risk
▪ Operational risk</td></tr>
<tr><td>Treasury</td><td>▪ Credit risk
▪ Market risk
▪ IRRBB
▪ Operational risk
▪ Reputational risk</td></tr>
<tr><td>Overseas operations</td><td>▪ Regulatory risk
▪ Reputational risk</td></tr>
</table>

Figure 1: Distribution of Economic Capital by types of risk[2] as of 1 January 2050



[2] Assuming no diversification

A detailed analysis of the management of various risks is given below.

5. Credit Risk

The principal sources of credit risk within the bank arise from loans and advances to corporate clients and retail customers, mainly mortgage and credit card lending. The Credit Risk Division (CRD) under the RMD establishes policies and limits for various lending activities and product types. Risk officers are located in the corporate and consumer banking businesses to maximise the efficiency of decision-making, but have a dual reporting line to the Head of CRD and the head of business divisions.

Corporate banking

The bank uses an alphanumeric grading system for quantifying credit risk associated with the obligors. The bank has refined its risk rating system by expanding it from a 10-grade to a 20-grade probability of default (PD) rating system. The bank proposes to use Basel II LGD estimates till it is in a position to implement the advanced IRB approach.

In assigning ratings to obligors, the bank also uses external inputs such as the ratings given by the rating agencies and the expected default frequency (EDF) scores of Moody's KMV. For internal economic capital purposes, LGD is determined by a combination of expert judgement and accounting data coupled with assessments of the strength of guarantee/guarantor, collateral value, and other structural features of the loan.

Consumer banking

For the consumer portfolio, the bank uses custom scorecards and credit bureau scores to assign each borrower a behavioural score. The LGD for retail loans are determined by valuing collateral and guarantees, and applying haircuts to those values based on expert judgement.

Credit exposure from derivatives

In managing derivative related credit risk, the bank executes ISDA agreement, (International Swaps and Derivatives Association) with the bank's counterparties. The master agreement allows the netting of obligations arising under all of the derivatives transaction that the agreement covers upon the counterparty's default.

Credit quality – impairment[3] and charge off policy

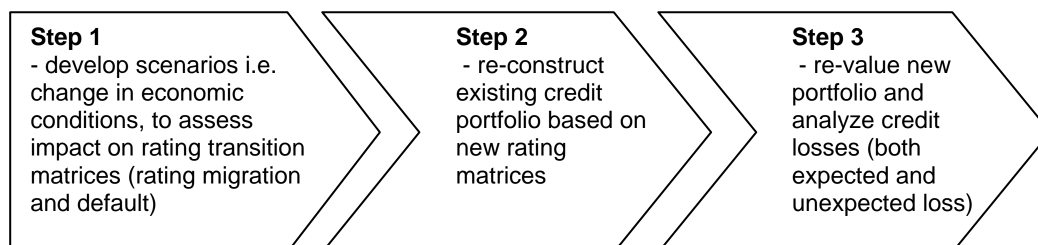
The bank regularly evaluates the adequacy of the established allowances for impaired loans by conducting a detailed review of the loan portfolio, comparing performance and delinquency statistics with current historical trend and assessing the impact of current economic conditions. Impaired loans consist of non-accrual loans, loans of 90 days or more past due and distressed debt under restructuring. In addition, loans where known information about possible credit problems cause the bank's management to have serious doubt as to the ability of such borrowers to comply with the loan repayment terms are included in the impaired loan category.

Trust Bank's aggregate outstanding customer loan impairment allowances have increased from 2.0% of gross customer advances in 2048 to 2.6% in 2049 and 3.1% in 2050. The bank attributes this increase to slowdown in the economy and has started tightening its lending standards to reverse this trend. The bank expects the customer loan impairment allowances to go down to 2.7% in 2051.

[3] Individual impairment (conducted for significant individual accounts) and collective impairment (conducted for high volume groups of homogenous loans that are not considered individually significant).

Credit Risk Stress Testing

The analytical team of the CRD creates a set of stressed scenarios to predict the asset quality mix and credit loss for consumer and commercial loan portfolios. The credit stress test is done on an annual basis. The diagram below illustrates the bank's credit stress testing framework.



The bank regularly examines the impact on its economic capital (for credit risk) of a "stressed" ratings transition matrix believed to be applicable to a once-in-25-years severity economic downturn in Trustland. The bank also examines, within the context of its corporate credit portfolio, the consequences of multiple notch downgrades of all its corporate customers in the manufacturing sector. The extent of the downgrades is determined by expert judgment. The RMD has estimated that the bank is likely to incur a loss of €6.28bn on account of revaluation of the existing credit portfolio based on the "stressed" ratings transition matrix.

As a part of its stress testing, the bank also considers the impact of the potential failure of a major counterparty in derivatives transactions. The bank's credit officers are asked to estimate the potential losses arising from such an event.

The stress test for the retail credit portfolio focuses on the residential mortgage portfolio of the bank. In conducting these stress tests, the bank prefers to use expert judgement as there is not enough historical data to inform on the relations between decline in economic growth rates, unemployment rates and mortgage defaults. Moreover, in order to keep up with competitors, Trust Bank has recently begun to offer a variety of new mortgage products, which were not offered earlier by banks.

Credit Concentration Risk

Credit concentration risk in the corporate portfolio is managed through the Credit Risk Committee (CRC) that is chaired by the Head of Credit Risk Division and comprises members of senior management from the credit risk functions and business units. Various concentration dimensions are assessed including industry sector, geographic spread, credit rating, customer segment and exposure to single counterparties or groups of related counterparties. In managing credit risk, CRC utilizes various techniques including loan sales, securitisation through collateralized loan obligations, default insurance coverage and single name and portfolio credit default swaps.

Beside various internal and regulatory limits monitored by the CRC, it also applies the HHI (Herfindahl-Hirschman Index)[4] to analyse its concentration to credit risk sectors. The bank's HHI is about 0.30 showing little change since 2006. It should be mentioned that about 0.20 out of this 0.30 result from concentration in the real estate sector.

[4] The HHI is a popular measure of concentration that has found many and varied applications. It is used extensively in the empirical industrial organisation literature and as a diagnostic tool by competition authorities in some jurisdictions. It is calculated as the sum of squared market shares (measured in fractions) of each market participant, and often expressed in a scale of 0 to 1. It is a continuous measure with zero corresponding to the fully granular case (each participant has an infinitesimal share) and unity corresponding to monopoly (there is only one participant). The Department of Justice of the US defines the market with its HHI between 0.10 and 0.18 to be moderately concentrated, and that with an HHI of more than 0.18 to be concentrated.

On the other hand, although the name concentration analysis shows some credit risk concentration, the bank does not have any *significant* credit risk concentration to any single borrower nor to any single group of entities.

	Projection Year 2052	Estimate Year 2051	Historical Information Year 2050	Historical Information Year 2049	Historical Information Year 2048
Share of :					
REAL ESTATE LOANS	0.43	0.45	0.43	0.45	0.43
COMMERCIAL LOANS	0.27	0.28	0.28	0.29	0.26
INDIVIDUAL LOANS	0.11	0.11	0.11	0.11	0.13
AGRICULTURAL LOANS	0.01	0.01	0.01	0.01	0.01
OTHER LN&LS IN DOMESTIC OFFICES	0.15	0.12	0.15	0.13	0.14
LN&LS IN FOREIGN OFFICES	0.02	0.02	0.02	0.02	0.02
HHI	**0.30**	**0.31**	**0.30**	**0.31**	**0.30**
Square (real estate loan share)	0.19	0.20	0.19	0.20	0.19

6. Market Risk

The bank is exposed to the risk of adverse movements in interest rates, credit spreads, exchange rates and equity prices, with little or no exposure to commodity risk. Most of the bank's trading activities are undertaken to meet the requirements of wholesale and retail customers for foreign exchange and interest rate products. However, some interest rate and exchange rate positions are taken using derivatives and other on-balance sheet instruments with the objective of earning a profit from favourable movements in market rates. Foreign currency risk also arises from the bank's investment in its overseas operations.

Market risk measurement

Market risk at the bank is measured by a variety of different techniques. The primary market risk measure used within the bank is the Value at Risk (VaR). VaR is an estimate of the potential loss which might arise from unfavourable market movements, if the current positions were to be held unchanged for one business day, measured to a confidence level of 98%. Daily losses exceeding the VaR figure are likely to occur, on average, in two out of every 100 business days. Being aware of VaR limitations, the bank augments it with stress testing. The three main types of stress tests used by the bank are (i) Risk factors: historical stress moves are applied to each of the risk categories which include interest rates, credit spreads, commodities, equities and foreign exchange rates; (ii) Emerging market contagion: historical stress moves combined with contagion factors are applied to the emerging markets portfolio; and (iii) Scenarios: simultaneous and connected stress scenarios are applied to the trading book.

The bank's VaR by risk type for trading activities (without assuming any diversification benefit) for the years 2048, 2049 and 2050 is given below. Although the VaR has been increasing over the last three years, the bank expects that due to lower volatility in the markets and economic recovery in the coming year, the level of VaR is likely to go down in 2051.

VaR by risk type for trading activities (Million Euros)			
	Year 2050	Year 2049	Year 2048
Foreign Exchange	206	182	162
Interest Rate	330	297	267
Equity	289	231	185
Total	825	710	614

Interest rate risk in the banking book /non-traded interest rate risk

The bank provides financial products that meet the needs of its customers. Loans and deposits are tailored to the customer requirements with regard to tenor, index and rate type. Interest rate risk in the banking book is measured by possible fluctuations in net interest income and its impact on the economic value of equity. Such fluctuations typically result from changes in interest rates and differences in the re-pricing and maturity characteristics of interest-earning assets and interest-bearing liabilities. The net interest income simulation analysis is the primary tool to deal with interest rate risk. The bank estimates its net interest income based on the composition of its on- and off-balance sheet positions and the current interest rate environment. The simulation assumes that recent growth continues in on- and off-balance sheet positions. The possible amount of net interest income at risk is measured by simulating the change of net interest income following a change in the interest rate curve by 200 basis points over the next 12 months.

Interest rate risk in the banking book's assessment:

Assumptions	Change in net interest income
+200 bp shift	-0.88%
-200 bp shift	+2.71%

The bank also performs stress tests to measure the effect on net interest income of an immediate change in market interest rates, as well as changes in pricing assumptions for deposits without contractual maturities, prepayments on loans and securities, and loan and deposit growth. Finally, the bank measures its maturity mismatches between assets and liabilities in three year and one year positions.

Mismatch between asset and liability	Trust Bank	Peers
Loans/Securities Over three years	25.71%	32.07%
Liabilities Over three years	2.73%	2.23%
Net Over three year position	**22.98%**	**29.84%**
Loans/Securities Over one year	39.83%	45.57%
Liabilities Over one year	6.12%	6.40%
Net Over one year position	**33.71%**	**39.17%**

7. Operational Risk

Following the Basel II framework, the bank defines operational risk as the risk of direct or indirect losses resulting from human factors, external events, and inadequate or failed internal processes and systems. The bank has adopted the Standardised Approach and expects to move over time to the advanced measurement approach for operational risk. To ensure that appropriate responsibility is allocated for the management, reporting and escalation of operational risk, the bank operates a three lines of defence model as indicated below:

- The first line of defence is the business line management. It has the primary responsibility for the identification, management and mitigation of the risks associated with the products and processes of its business. It engages in regular testing and certification of the adequacy and effectiveness of controls and compliance with the bank's policies including the bank's Operational Risk Policy and Principles ("ORPP").
- The second line of defence is the bank's Operational Risk Division within the RMD. This division is responsible for the design, ownership and implementation of the ORPP. The ORPP incorporates key processes including risk and control self-assessments, scenario analysis, loss data collection, new product approval process, key risk indicators, and the self-certification process. Operational Risk Division teams provide expert support and advice as well as oversight and challenge to business line management.

- The third line of defence is audit. Group Internal Audit is responsible for assessing compliance with the ORPP and for providing independent evaluation of the adequacy and effectiveness of the risk control framework.

The bank has incurred operational risk losses to the extent of € 50 million in 2048 which was mainly due to a fraud committed through internet banking in the account of a corporate customer. The bank strengthened the IT security controls after the fraud. There were, however, a series of frauds committed through internet banking in accounts of retail depositors and small business customers amounting to € 35 million during the year 2049. The bank has stated that it has further enhanced IT security after the events. In the year 2050 there was an instance of rogue trading and the loss incurred by the bank was € 5 million. The bank has since terminated the services of the trader.

8. Liquidity Risk

Liquidity risk measurement

The bank's liquidity policy is designed to ensure that it can at all times meet its obligations as they fall due. There are a number of ways that the bank uses to achieve this objective:

1) Intraday Liquidity

The need to monitor, manage and control intraday liquidity in real time is recognised by the bank as a mission critical process: any failure to meet specific intraday commitments would have significant consequences. The bank policy is that each operation must ensure that it has access to sufficient intraday liquidity to meet any obligations it may have to clearing and settlement systems. Major currency payment flows and payment system collateral are monitored and managed in real time to ensure sufficient collateral to make payments.

2) Short-term funding

The short term funding is managed by daily, weekly and monthly mismatch limits to ensure that the expected cash flow requirements can be met. These requirements include replenishment of funds as they mature or are borrowed by customers. In addition to cash flow management, Treasury also monitors unmatched medium-term assets and the level and type of undrawn lending commitments, the usage of overdraft facilities and the impact of contingent liabilities such as standby letters of credit and guarantees.

3) Liquid assets

The bank maintains a portfolio of highly marketable assets including US and Euro-area government bonds that can be sold or funded on a secured basis as protection against any unforeseen interruption to cash flows. The bank does not rely on committed funding lines for protection against unforeseen interruptions to cash flow. Additionally, the bank maintains a liquid assets buffer as per supervisory requirements.

4) Structural liquidity

An important source of structural liquidity is provided by the bank's core local retail deposits, mainly current accounts and savings accounts. Although current accounts are repayable on demand and savings accounts at short notice, the bank's broad base of customers – numerically and by depositor type – help to protect against unexpected fluctuations. Such accounts form a stable funding base for the bank's operations and liquidity needs. In this context, it should be mentioned that the bank's policy is to fund the retail and corporate lending with customer deposits without recourse to the wholesale markets. In order to ensure a stable funding base, the bank offers competitive rates on its deposits.

5) Diversification of liquidity sources

Sources of liquidity are regularly reviewed to maintain a wide diversification by currency, geography, provider, product and term. In addition, to avoid reliance on a particular group of customers or market sectors, the distribution of sources and the maturity profile of deposits are also carefully managed. The bank's other sources of funds include collateralised financing transaction, senior and subordinated debt and commercial paper. Trust Bank also

generates funds by securitising financial assets, including credit card receivables and mortgage receivables. Funding from the asset backed securitization, however, only accounted for 5% of the total liquidity as of 31 December 2050. Trust Bank's long term debt of € 0.5 bn will mature in 2052, which will be repaid using internal funds.

6) Stress tests

The bank performs a number of regular stress tests of the behaviour of future cash flows using different scenarios, which are classified as either bank-specific or market-driven. For the bank-specific scenarios, the bank assumes either (i) a 1- to 3-notch downgrade of the bank's rating, (ii) a sharp increase in the drawdown of commitments by borrowers (iii) a sudden change in composition of deposits and a sudden increase in cash deposit withdrawals (iv) a tightening of credit lines. For the market-driven scenarios, the bank assumes (i) an emerging market crisis leading to illiquidity in that market (ii) distress of specific currencies important for Trust Bank's funding (iii) interbank market difficulties and (iv) a severe disruption in one of the key markets in which it operates. The bank-specific scenarios assess the impact on the bank's cash flow position over a week's time. The market-driven scenarios assess the impact on cash flows over one month. The results of the stress tests are communicated to senior management and are used to structure and assess the bank's contingency funding plan. At present, the plan's triggers include: the pre-termination of 30% of term deposits, a 30% withdrawal of demand and savings account balances, the inability to roll-over maturing debt, and a 25% decline in liquid assets. The contingency plan includes accessing the central bank facilities as well as the use of securitisation.

9. Reputational Risk

Trust Bank regards the management of reputational risk as key to the survival of the bank. Reputational risk is managed by the Product and Reputational Unit which reports to the Group Operational Risk Committee. This unit reviews and approves all new products and services that the bank proposes to market. During the review, the unit evaluates information received from the product owners and other stakeholders within the bank such as Legal Department, IT Department, Credit Risk and Market Risk Division. The unit has also prepared a Manual of Procedures for the marketing of financial products with a view to ensuring that the products are subject to a pilot test-marketing before their formal launch; product development takes into account consumer needs and the bank complies with the relevant regulations.

10. Business Risk

The bank assesses business risk on the basis of historical earnings volatility analysis which takes into account the previous 24 months' income. It is recognised that this measure may double-count some risks, as the risks modelled under credit, market, operational and interest rate risks may drive components of earnings volatility. However, management wishes to be prudent in risk measurement. The earnings volatility measure is also meant to incentivise business unit heads to minimise volatility, a key measure for the bank's shareholders.

11. Use of Models and Model Validation

The bank has hired a reputed external advisor to conduct an independent review and validation of the measurement tools used for Pillar 2 risks and for the computation of economic capital. The review and validation process takes place every year and includes all risk categories, The bank does not have long historical time series of own data and relies on the consulting firm to provide external data. The consultant also advises the bank in the preparation of the ICAAP.

12. Capital management

Trust Bank's approach to capital management is driven by its business strategy and risk appetite taking into account the regulatory environment in which it operates. The bank maintains a strong discipline over its investment decisions and capital allocation, with a view to ensure that the return on investment is appropriate after taking into account the capital costs. The bank's capital management objectives are as follows:

- to support the bank's 'A' credit rating;
- to ensure that amount of capital available is consistent with its current and planned levels of activity and desired level of capital adequacy;
- to ensure that capital is employed efficiently; and
- to select an appropriate mix of capital instruments.

The capital management process in the bank is carried out at the group level. The subsidiaries, regardless of their asset size or profit contribution, are not directly involved in this process. However, the senior management of the subsidiaries are informed of the capital allocation during the annual business plan meetings.

The development of the capital management framework in Trust Bank is underpinned by the following process:

- setting of risk appetite;
- assessment of capital adequacy, both internal and regulatory capital; and
- capital planning and stress testing.

13. Risk Appetite

Risk appetite is the level of risk that the bank chooses to take in pursuit of its strategic objectives. It also reflects the bank's capacity to sustain potential losses at varying levels of probability, based on available capital resources. The bank's risk appetite framework, approved by the Board Risk Committee, combines a top-down view of the bank's capacity to take risk with a bottom-up view of the risk profile provided by each business line.

To determine this acceptable level of risk, senior management estimates the potential earnings volatility from different businesses under various scenarios. This annual setting of risk appetite considers the bank's ability to support business growth, desired dividend payout levels and capital ratio targets. If the projections entail too high a level of risk, senior management will challenge each area to find new ways to rebalance the business mix to incur less risk on a diversified basis. Performance against risk appetite is measured and reported to the board regularly throughout the year.

The bank regularly monitors the level of potential deviation from expected financial performance that the bank is prepared to sustain at relevant points on the risk profile. It is established with reference to the strategic objectives and to the business plans of the bank, including the achievement of annual financial targets, payment of dividends, funding of capital growth and maintenance of acceptable capital ratios and the bank's credit rating. A review of the business activities is undertaken to ensure that they are within the bank's mandate (i.e. aligned to the expectations of external stakeholders) and are of an appropriate level (relative to the risk and reward of the underlying activities). To support its capital management objectives, the bank's internal targets should exceed the minimum regulatory capital requirements. The following indicators are used to manage the bank's risk capacity:

Indicators	Description
Earnings volatility	forecasted dividend should be payable with a 90% probability
Tier 1 capital ratio	minimum: 5%
Total (Tier 1+2) capital ratio	minimum: 8%

Indicators	Description
Economic capital utilization	Maximum utilization: 90%
Targeted credit rating	A
Return on equity	15%

14. Capital Adequacy

Trust Bank's regulatory capital consists of the following:

- Tier 1 capital comprises core Tier 1 capital, innovative Tier 1 securities and retained earnings.
- Tier 2 capital comprises certain preferred stock (perpetual cumulative preference shares) and subordinated debt instruments

Trust Bank has a total Tier 1 capital € 6.85 bn which has to be adjusted for net unrealized gains (losses) on available for sale securities, for accumulated gains (losses) on cash flow hedges, for non-qualifying perpetual preferred stock, qualifying minority interest in consolidated subsidiaries, and other additions or deletions to equity capital. After adjustments, the Tier I capital equals € 6.81 bn. In assessing and managing its capital adequacy, Trust Bank considers both regulatory capital requirement as well as internal capital target.

15. Economic Capital

Economic capital is the internal measure of the capital required for the bank to absorb unexpected losses. In this context, the bank's economic capital is set to cover losses with a confidence level of 99.90% over a one year time horizon, corresponding to 'A' rating. The bank calculates economic capital for credit risk, market risk including non-traded interest rate risk, operational risk and business risk. The bank regularly enhances its economic capital methodology and benchmarks outputs to external reference points.

Trust Bank recognizes the diversification benefit arising out of exposure to different risk types which reduce the overall economic capital requirements to less than the sum of its parts. The bank considers diversification benefit across credit, market and operational risk (inter-risk diversification) but it does not consider intra-risk diversification (i.e., diversification benefit in credit risk, for example)

Trust Bank uses the economic capital for performance measurement, strategic decision making and internal capital adequacy assessment. The total average economic capital required by the bank, as determined by risk assessment models after considering the estimated portfolio diversification benefits, is compared with the average supply of capital resources to evaluate economic capital utilisation. Economic capital is allocated on a consistent basis across all business lines. It is used for risk based pricing of products which includes the cost of funding, the expected loss, the allocated economic capital and return required by shareholders. .

At the bank level, economic capital is used for risk adjusted performance measures. The bank uses a risk-adjusted performance measure called "Risk Adjusted Return on Capital" or RAROC. The risk adjusted return is computed as under

RAROC= Risk-adjusted return/economic capital

Risk-adjusted return = Revenues – (expenses + expected loss) ± Treasury transfer prices

16 Capital Planning

The annual, medium and long-term strategic plans of the bank always focus on maintaining adequate capital levels. During the planning process, the bank sets limits for capital allocation to business lines to ensure that the capital management objectives (including meeting internal targets) will continue to be met over the medium and long-term period.

GALCO reviews the limits on a monthly basis. Achieving the planned performance in each business is dependent upon its ability to accurately assess, manage and control, the risks. The RMD supports the planning process by providing a robust review and challenge of the business plans to ensure that:

- The figures relating to risk are internally consistent and accurate;
- The plans are achievable given the risk management capabilities of the businesses; and
- The plans efficiently utilise, but do not exceed, the bank's risk appetite.

This review and challenge is achieved through dialogues involving among others, the CFO, the CRO, relevant members of the RMD and senior executives from the various business divisions.

The bank uses Tier 1 capital as a measure of its capital adequacy as this forms the most permanent cushion to absorb potential losses. The bank's Basel II Tier 1 ratio is 7.19% and total capital (Tier 1 + 2) ratio is 11.63%. Accordingly, the bank considers its available capital as adequate.

17. Stress Testing

Stress testing is used to assess the capability of Trust Bank to continue operating effectively even under stress scenarios. It is also used to identify potential future risks, set risk appetite and to formulate capital and liquidity contingency plans. The bank uses scenario analysis as the primary stress test tool for the pillar 2 risks. The scenario analysis involves a discussion between RMD and significant business units for the development of scenarios and a review of impact of the stress-test on the earnings and capital. The results of scenario analysis are communicated to the GRC, GEC and Board Risk Committee and ultimately to the board. One of the scenarios considered by the bank for capital planning purposes had the following elements:

- A decline in GDP growth of 1% in the first year followed by a 0% growth in the second year before a recovery of 0.5% growth in the third year;
- A 30% depreciation in the currency;
- An increase in unemployment by 10% in the first year and 5% in second year;
- A decline in house prices by 10% in first year followed by 5% in second year.

This risk scenario resulted in increased bank write-offs on lending to the retail and corporate sector.

A review of the assumptions and techniques underlying the scenarios is undertaken on an annual basis by the RMD and complemented by an independent assessment by the Group Internal Audit. In view of the recent market turbulence, stress testing activity has been intensified at the bank level as well as at the level of subsidiaries, with specific focus on certain asset classes, client segments and the potential impact of macro economic factors.

In response to a recent supervisory directive from the supervisory authorities, Trust Bank carried out a reverse stress test. As the bank had not engaged in this form of exercise earlier, it was done on an ad-hoc basis and spearheaded by the RMD. The bank is in the process of formulating a policy on reverse stress testing which can be incorporated in the bank's current stress testing framework.

In performing the reverse stress test, the RMD assumed that the bank incurs a loss which is large enough to wipe off its entire Tier 1 capital (€6.81bn). It carried out an assessment of the bank's risk profile and business model, taking into account the strategic plan set by management for the next three years. The bank analysed the scenario in which there are widespread defaults affecting borrowers in the manufacturing industry, given the bank's significant exposure to the sector. In such a scenario the bank is likely to incur losses to the

extent of €7.9bn, as against Tier 1 capital of €6.81bn and total capital (Tier 1 + Tier 2) of €11.03 bn.

18. Stress Test Results and management actions

The recently-conducted stress test of the bank revealed that the bank will suffer a significant decline in profitability between 2052 and 2054. In response to the stress test result, the bank intends to take the several actions such as reduction or non-payment of dividends, reduction in lending to the high risk segment and reduction in costs in order to preserve its capital levels, as shown in the Table.

		Actual (€bn)	Estimate (€bn)	Projection (€bn)		
		2050	2051	2052	2053	2054
1.	Regulatory capital (Tier 1 + Tier 2) required as per the business plan	7.930	8.068	8.308	8.334	8.676
2.	Available regulatory capital (Tier 1 + Tier 2)	11.028	11.032	11.079	11.152	11.262
3.	Surplus/ (deficit)	3.098	2.964	2.771	2.818	2.586
4.	Capital required in a stress scenario, of which	-	-	12.829	12.128	11.817
	• Credit risk			6.286	5.943	5.790
	• Market risk			3.464	3.274	3.191
	• Other risks			3.079	2.911	2.836
5.	Management actions					
	5.1 Amount transferred to retained earnings (part of Tier 1) by-					
	- reducing dividend	-[a]	-[a]	0.097[b]	0.123[c]	0.180[c]
	- reduction in costs	-	-	0.300	0.285	0.150
	5.2 Additional capital available due to					
	- reduction in lending to high risk exposures	-	-	0.900	0.701	0.285
6.	Capital available in the stress scenario after management actions	-	-	12.376[d]	12.261	11.877

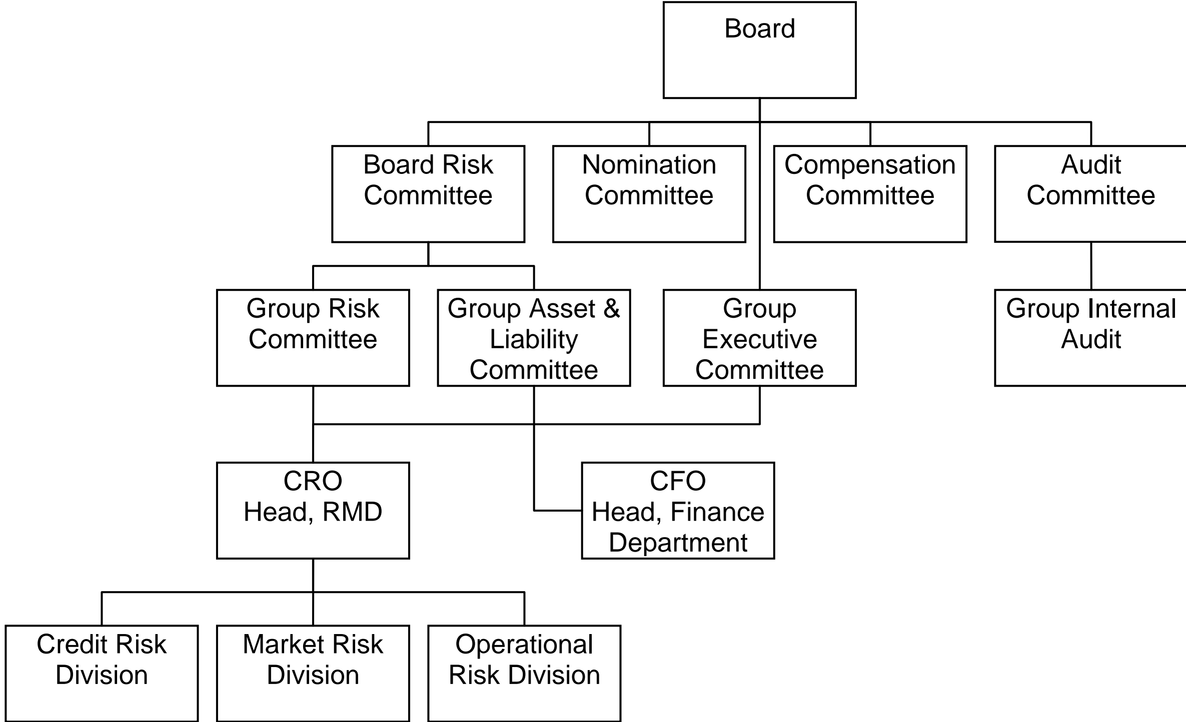
[a] Trust Bank paid dividend of € 1.165 bn (100% of its profit after tax) in 2050. In 2051, the bank intends to pay dividend amounting to € 840.0 million (mn) or 95.7% of profit after tax.

[b] In 2052, Trust Bank may register a profit after tax of € 97.0 mn despite the assumed severe downturn. During 2052 no dividend payment will be made in an effort to increase the retained earnings and bolster the bank's capital position.

[c] In 2053 and 2054, Trust Bank is projected to register a profit after tax of € 176.0 mn and €300.0 mn respectively. In 2053, the bank plans to make a dividend payment of €53.0 mn, representing 30% of its profit after tax. In 2054, the bank intends to increase its dividend payment to € 120.0 million or 40% of its profit after tax.

[d] Trust Bank may consider raising additional capital, if required, in 2052.

Attachment 1 - Board and Board Risk Committees



Attachment 2- Roles and responsibilities of the board and board committees

Board of Directors (Board)	▪ Sets the overall risk appetite and approves strategy, business objectives and risk management framework ▪ 10 board members: Seven non-executive directors and three executive directors i.e. Chief Executive Officer (CEO), Group Chief Risk Officer (CRO) and Group Chief Financial Officer (CFO).
Board Risk Committee (BRC)	▪ Provides oversight of the bank's policies, strategies and activities related to risk management ▪ Chaired by an independent non-executive director. Other members include two independent directors. CRO and CFO are invited to attend.
Nomination Committee	▪ Responsible for setting the bank's corporate governance program and ensuring the bank follows it. ▪ Chaired by an independent non-executive director. Members include two independent directors. The CEO and respective heads of Human Resource and Legal Departments are invited to attend.
Compensation Committee	▪ Conducts an annual evaluation of the performance of the CEO and key senior management. ▪ Chaired by the Chairman of the board. Other members include two independent directors.
Audit Committee	▪ Reviews financial reporting and the application of accounting policies. ▪ Chaired by an independent director. Members include two independent directors.

Attachment 3 - Roles and responsibilities of the senior management committees

Group Executive Committee (GEC)	▪ Ensures that implementation of strategies and operations are in line with strategies approved by the board. The GEC reports to the board on a quarterly basis. ▪ Chaired by the CEO. Other members include the CFO, CRO and other businesses and operations head of departments.
Group Risk Committee (GRC)	▪ Responsible for implementing the risk strategy and policies approved by the board to manage risks across the firm. GRC reports to BRC on a quarterly basis. ▪ Chaired by the CRO. Other members include the heads of the respective risk divisions within the RMD, the heads of selected business units and the CFO.
Group Asset Liability and Management Committee (GALCO)	▪ Responsible in capital and balance sheet management including capital adequacy and liquidity. GALCO reports to BRC on a quarterly basis. ▪ Chaired by the CFO. Other members include the CRO, Treasurer and head of business units.
Credit Risk Committee (CRC)	▪ Responsible for managing credit risk across the bank and for the establishment of credit risk policies and limits. CRC reports to GRC on a monthly basis. ▪ Chaired by the head of the credit risk division within the RMD. Other members include the head of risk analytics, credit evaluation and assessment, portfolio management, model validation, corporate and retail banking.

Attachment 4 - Reports to the bank's board of directors

On a quarterly basis, the following set of reports is submitted to the board to facilitate risk review and effective deliberation:

- Risk position on aggregated basis broken down by risk type, geographies and industries
- Capital adequacy by different uses i.e. regulatory capital, economic capital
- Commentary on trends in market, risk and strategy that can have material impact on risk and capital on a forward looking basis
- Serious breaches of limits and reports of their escalation and resolutions
- Stress test results.

The objective of these reports is to enable a quick and effective understanding of the bank's current risk profile and to ensure that significant issues are escalated on a timely basis.

The board members have also taken action to improve their ability to understand risk reports by attending financial training sessions. From time to time, board members have invited external parties such as risk consultants to provide an independent review on the bank's risk position.