



Risk management | 2009

# Risk management

## THE MOST IMPORTANT RISK TYPES

### Underwriting risk

The risk related to entering into insurance contracts. The risk that claims at the end of an insurance contract deviate significantly from our assumptions when pricing at inception of the contract.

*Handled by the Underwriting reinsurance committee*

### Provisioning risk

We make technical provisions at the end of a financial period to cover expected future payments for claims already incurred. Reserving risk is the risk that future payments deviate significantly from our assumptions when making the provisions.

*Handled by the Provisions committee*

### Investment risk

The risk that volatility of financial markets impacts our results. Interest rate risk constitutes a major part of investment risk. Interest rate risk is the risk of fluctuating market interest rates.

*Handled by the Investment risk committee*

### Strategic risk

The risk of changes to the conditions under which we operate, including changed legislation, competition, partnerships or market conditions.

*Handled by the Risk management committee*

### Operational risk

The risk of errors, fraud or failures in internal procedures, systems and processes.

*Handled by the Operational risk committee*

Being an insurance business, TrygVesta's business platform is to create peace of mind for customers by helping them manage and handle the financial risk related to their belongings or interests. Risk management is at the core of our business, and it is only natural that we also focus in-house on managing the risks to which our operations expose the Group. Structured and competent risk management is fundamental to maintaining confidence in TrygVesta and living up to our vision of being perceived as the leading peace-of-mind provider in the Nordic region.

### Risk management environment and risk identification

The introduction of Solvency II in 2012 will introduce stricter requirements with respect to the way in which insurance companies work with and control risk, including the Supervisory Board's involvement in risk and capital management.

➔ *See the section Capitalisation and profit distribution in the annual report*

TrygVesta has for a number of years worked to align the company to such requirements. This involves that the Supervisory Board actively defines risk appetite and risk management limits and regularly assesses the overall risk in the company and the resulting capital requirement. This is handled in a risk management environment, in which the risk management committee, including representation from the Group Executive Management, is responsible for the overall risk and capital management. The areas of

- > underwriting and reinsurance
- > provision
- > investment risk
- > operational risk and security

## TRYGVESTA'S RISK MANAGEMENT ENVIRONMENT



are managed by corresponding sub-committees. Risk management is supported by TrygVesta's internal capital model, which has been developed on an ongoing basis over the past ten years.

The business side is involved in the risk management environment through membership of the relevant committees, as risk owners and as participants in the annual mapping of risk, through compliance with and implementation of policies and controls, including by setting up rules with respect to authority, binding signatures and implementation of the relevant system support. We have a standard project model for implementing TrygVesta's strategy in specific projects, of which risk assessment is an integral element.

TrygVesta has defined a structured process for mapping risk throughout the Group. The risk owners describe risk, assess the potential impact and probability and evaluate the adequacy of the control environment. Such data is compiled in TrygVesta's risk data base, which forms the basis for further processing in the risk management environment in the representation of TrygVesta's overall risk exposure. The risk exposure is supplemented by a number of scenarios illustrating the consequences of special events that may impact several risks simultaneously. The Group's overall risk exposure is presented in an annual risk report submitted to the Executive Management and the Supervisory Board.

There is a direct correlation between the scenarios identified by the risk owners and the Group's calculation of its

Individual Solvency Need. The Individual Solvency Need is determined by calculating one-year consequences of such risk scenarios and converting them to the level of probability on the basis of which the capital is made up. An additional amount is added to the Individual Solvency Need, equal to the maximum of a number of selected scenarios where several of the risks identified may materialise at the same time. Examples include a major terrorist scenario, which will give rise to significant insurance claims while at the same time the financial markets will react negatively, or a recession scenario which will likewise impact both insurance risks and financial risks.

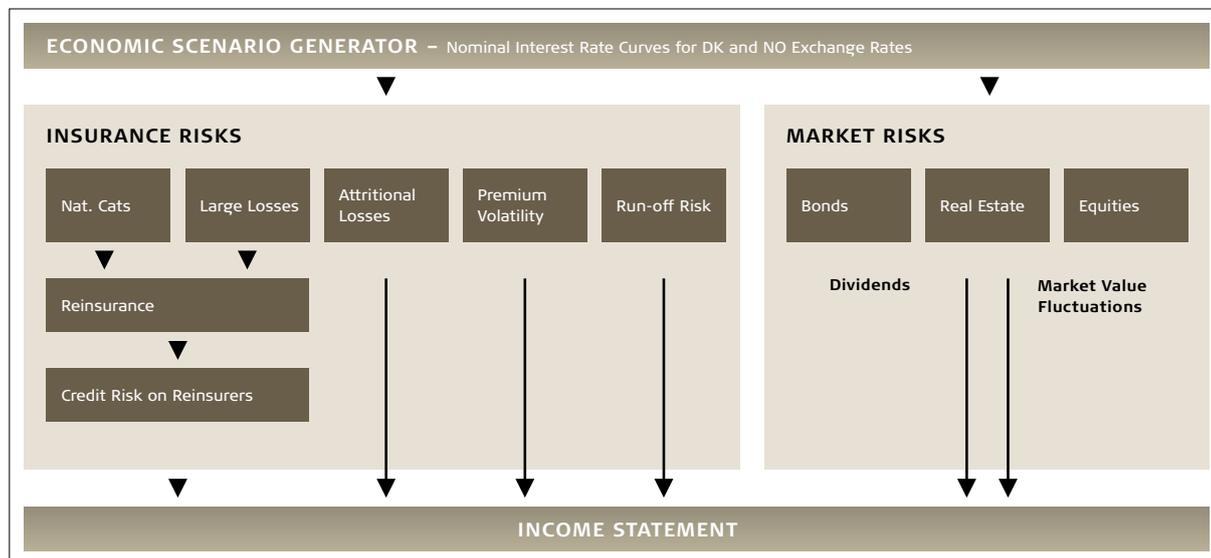
### Internal capital model

TrygVesta's internal capital model supports risk management in a number of respects in close collaboration with the respective business areas, such as assessment of the Individual Solvency Need, allocation of capital and determination of targets for underwriting, investment strategy and reinsurance optimisation.

The model comprises all TrygVesta's business areas with the exception of TrygVesta Garanti and covers underwriting and reinsurance risk, reserving risk and investment risk. Strategic risk, liquidity risk and operational risk are covered separately.

The capital model is expected to play a major role in TrygVesta's preparations for the Solvency II rules, both in relation to the assessment of TrygVesta's capital requirement and in relation to the assessment of the capital charge for the individual risk elements and business areas.

## THE STRUCTURE OF CASH FLOWS IN TRYGVESTA'S CAPITAL MODEL



The model is based on a large number of assumptions with respect to TrygVesta's risk volume and the statistical variation which experience has shown is involved in each risk element. Based on the modeled correlations and uncertainties, potential outcomes of future developments are simulated. Repeating this a large number of times allows us to calculate the statistical distribution of key items of the company's income statement and balance sheet, thereby determining the capital necessary to ensure the company's solvency at a given probability.

This technique makes it possible to catch a number of correlations that cannot be caught in other types of capital models. Such correlations include an exact measurement of the risk-reducing effect of the Group's reinsurance programme including the risk related to the fact that TrygVesta's reinsurers are themselves exposed to a slight risk of incurring financial problems and thus will not always be able to cover agreed obligations. Another example is measurement of fluctuations in the natural hedge that exists because changes in the level of interest rates affect the value of both assets and liabilities simultaneously and in the same direction.

## Risk Types

### Underwriting And Reinsurance Risk

#### Underwriting risk

Underwriting risk is the risk related to entering into insurance contracts and thus the risk that premiums charged do not adequately cover the claims TrygVesta has to pay.

The risk may materialise as losses either as a result of single events or over a period of time due to a general adverse trend in the performance of claims or to premiums that are too low. Conversely, there is also a risk that premiums charged are too high, resulting in a loss of competitiveness. Underwriting risk is assessed and managed based on statistical analyses of historical experience for the various lines of business. The insurance premium must be adequate to cover expected claims, but must also comprise a risk premium equal to the return on the part of the company's capital that is used to protect against random fluctuations. All other things being equal, this means that insurance lines or areas which, from experience, are subject to major fluctuations, must comprise a larger risk premium. The figures Norwegian Property and Norwegian

Motor Liability show how, in practice, there may be significant variation in the fluctuations observed in different lines, and thus in the underwriting risk of those lines.

Underwriting risk is continuously assessed based on analyses in the internal capital model which thus provides target premium levels for the respective parts of the insurance business. Risk is furthermore managed on an ongoing basis by monitoring of profitability, business procedures, acceptance policies, authorities and reinsurance.

**Reinsurance**

Reinsurance is used to reduce underwriting risk in areas where this is particularly required. The need for reinsurance is assessed on the basis of TrygVesta's internal capital model, which compares the price of buying reinsurance with the reduced capital need that could be achieved. The Group buys reinsurance for the aggregate Nordic business, thereby generating substantial price synergies.

For property risks, major events in 2010 are protected by catastrophe reinsurance of DKK 5bn with a retention up to a maximum of DKK 100m in Denmark and NOK 100m in Norway. The primary risk of single events is storm. We have defined the level of cover using simulation models

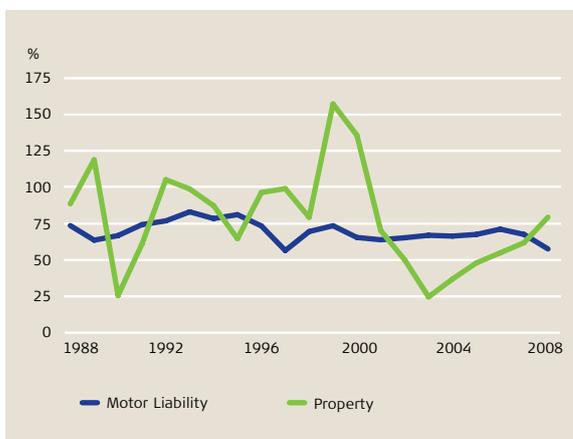
to the effect that our protection would statistically be inadequate less than once every 250 years.

The catastrophe reinsurance programme also covers other catastrophe events, including terrorist events up to DKK 4.15bn. TrygVesta has bought catastrophe re-insurance up to DKK 1.5bn for personal accident and workers' compensation policies with a retention of DKK 50m, covering the risk of multiple injuries from the same cause, including terror.

In addition, TrygVesta buys reinsurance for certain lines for which experience has shown that claims vary considerably. The largest single risks in our corporate portfolio are property risks protected by reinsurance cover up to DKK 1.7bn with a retention of DKK 100m for the first claim and DKK 50m for subsequent claims. Property risks exceeding the upper level are protected by facultative reinsurance. Other lines covered by reinsurance include liability, motor, marine, fish farms and guarantee insurance.

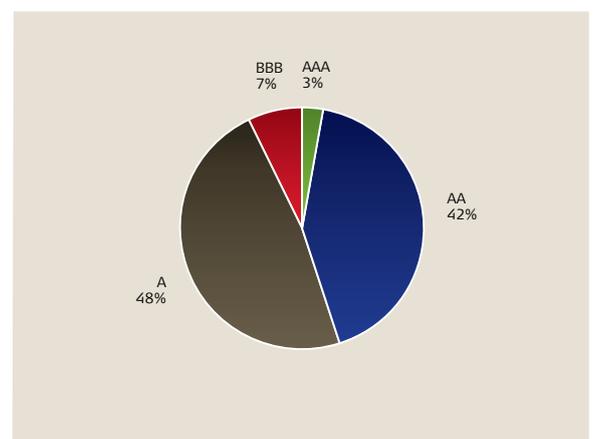
Exposure to terrorist losses of a biological, chemical or radioactive character can be covered only partly by reinsurance today. However, Denmark established a national solution to this issue in June 2008 when the Danish Folketing passed the act on a terrorist insurance arrangement in the

**NORWEGIAN PROPERTY AND MOTOR LIABILITY**



Example of fluctuations in historical claims experience for lines subject to a large degree and a minor degree, respectively, of random fluctuations (risk).

**BREAKDOWN OF PREMIUMS CEDED BY REINSURER'S RATING**



general insurance area. The act provides for the government to provide a guarantee of up to DKK 15bn for the total Danish market to cover such losses in excess of the level that can be protected in the reinsurance market. In January 2010, the EU Commission finally approved the act which may thus become effective in the first half of 2010. No similar arrangement has as yet been set up in Norway, Sweden and Finland.

In the event of a major insurance event comprised by the reinsurance programme we may have large balances outstanding with reinsurers, and thus be exposed to credit risk. We manage this risk by defining requirements to reinsurers' ratings and spreading our reinsurance on several reinsurers. TrygVesta has also set up a security committee focusing specifically on handling credit risk in connection with reinsurance receivables.

### Provisioning risk

After the period of the policy's cover expires, insurance risk relates to the provisions for claims made to cover future payments on claims already incurred. Customers report claims with a certain delay. Depending on the complexity of the claim, a shorter or longer period of time may pass until the amount of the claim has been finally calculated. This may be a prolonged process particularly for personal injuries. Even when the claim has been settled there is a risk that it will be resumed at a later date, triggering further payments.

### PROVISIONS FOR CLAIMS (GROSS)\*

Expected cash flow	DKK
0-1 year	6,972
1-2 years	3,421
2-3 years	2,256
> 3 years	9,178
<b>Total</b>	<b>22,827</b>

\*Provisions for claims are excluding Finland, Sverige (Vesta Skadeförsäkring) og TrygVesta Garanti.

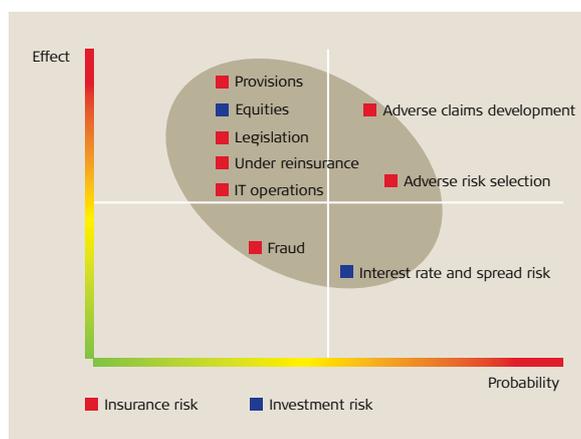
The size of the provisions for claims is determined both through individual assessments and actuarial calculations. At 31 December 2009, the provisions for claims amounted to DKK 22,430m. The duration of the provisions, that is, the average period until such amounts are paid out to the customer, was 3.3 years at 31 December 2009.

Most of the provisions for claims relate to personal injury claims. They are exposed, among other risks, to changes in inflation, the discount rate, disbursement patterns, economic trends, legislation and court decisions.

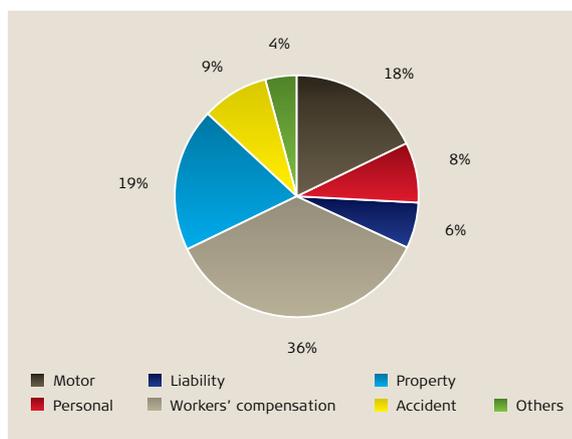
➔ See also the section *Investment and interest rate risk*

The calculation of provisions for claims will always be subject to considerable uncertainty. Historically, many insurers have experienced substantial positive as well as negative impacts on profit (run-off) resulting from re-

### RISK OVERVIEW



### PROVISIONS FOR CLAIMS



servicing risk, and that may also be expected to happen in future. TrygVesta manages reserving risk by pursuing a reserving policy ensuring that the process for determining provisions for claims is updated and aligned at all times. This includes that it is based on an underlying model analysis, and that internal control calculations and evaluations are made.

Provisions for claims relating to annuities in Danish workers' compensation insurance are discounted using the current market rate and are also revalued by the wage inflation rate each year. This exposes TrygVesta to explicit inflation risk in case of changes in Danish wage inflation. TrygVesta hedges such risk using an inflation swap.

The figure Historical run-off results shows that TrygVesta has gone from a period of mostly negative surprises (risk) to a period of systematically positive run-off results. We believe the level of provisions is fully adequate with an appropriate margin for uncertainty.

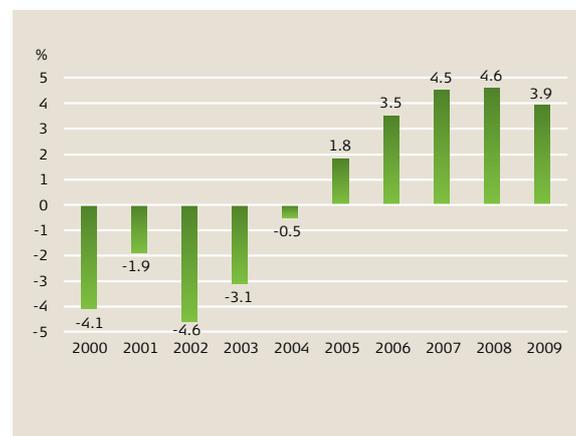
Sensitivity in case of selected changes in underwriting, reserving and market conditions

### Investment and interest rate risk

Investment risk is the risk that volatility in the financial markets will impact the results of operations and thus the financial position. Investment assets as well as provisions for claims are exposed to interest rate changes. If interest rates fall, the value of the bond portfolio would rise, but at the same time it would cause the provisions for claims to rise, thereby reducing net interest rate exposure.

The investment assets are partly made up of assets matching the technical provisions and partly of the company's equity. At the beginning of 2010, TrygVesta began explicitly dividing the assets into two investment portfolios. The part of the portfolio matching the technical provisions will be placed exclusively in interest-related assets, and the sole purpose is to hedge interest rate sensitivity with respect to discounted provisions. The part of the portfolio that matches equity will be a free investment portfolio intended to generate an optimum return relative to the risk involved. The figure Division of the investment

### HISTORICAL RUN-OFF



### SENSITIVITY IN CASE OF SELECTED CHANGES IN UNDERWRITING, RESERVING AND MARKET CONDITIONS

#### INSURANCE RISK

Underwriting risk	DKKm
Increase in claims expenses of 1%	-132
Decrease in premium rates of 1%	-183
Weather-related claim of DKK 5.5bn (reinsurance coverage DKK 5bn)	-260

#### Provisioning risk

Increase in social inflation of 1%	-557
Error estimation of e.g. 10% on workers' compensation and motor	-1,158

#### MARKET RISK

##### Investment risk

<i>Interest rate market - increase in interest rates of 1%:</i>	
Impact on fixed interest securities	-694
Higher discounting of provisions for claims	624
Impact on Norwegian pension obligation	142

##### Equity market

Decrease of equity markets of 15%	-257
Effect arising from derivatives	19

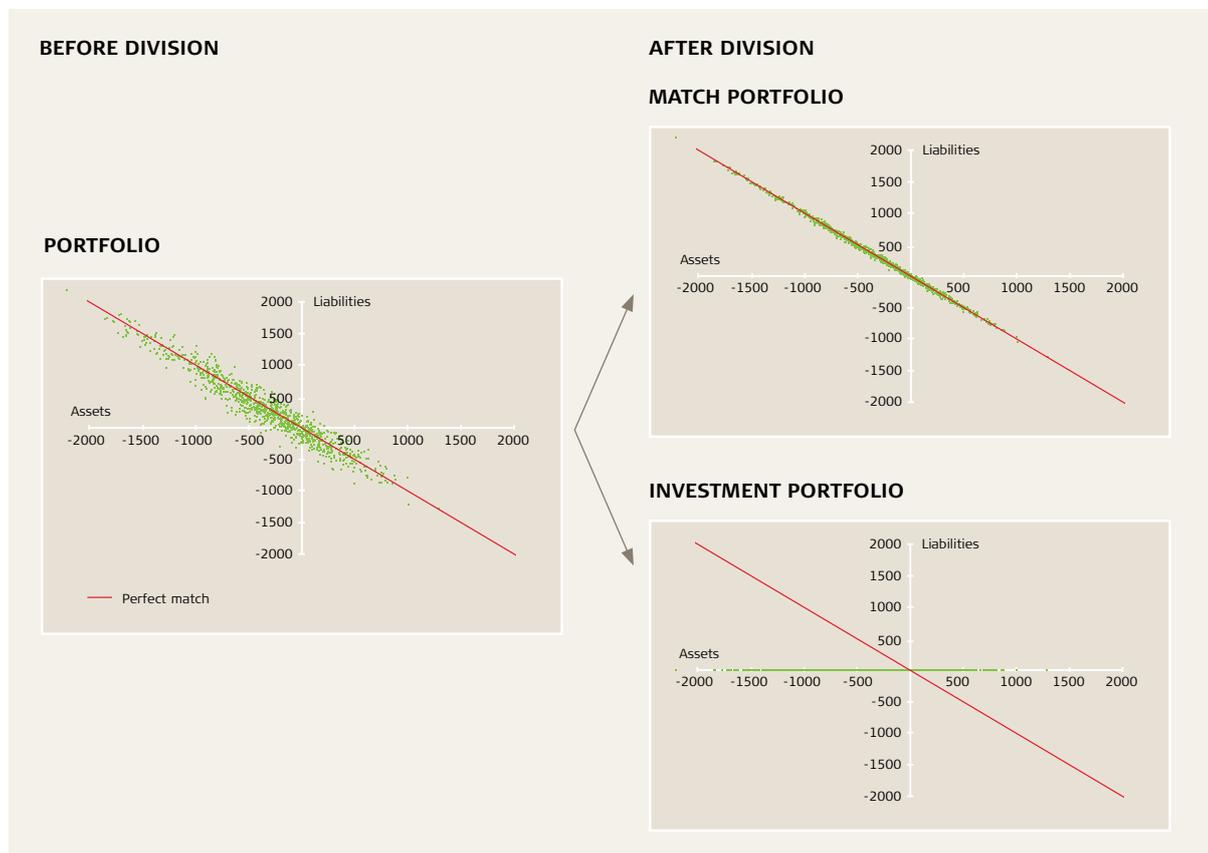
##### Real estate market

Decrease of real estate markets of 15%	-584
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##### Currency market

Decrease of 15% of exposed currencies relative to DKK	-378
Impact derivatives	327

## DIVISION OF THE INVESTMENT ASSETS



Before the division of the portfolio, fluctuations in liabilities would to some extent be offset by opposite fluctuations in assets (left figure). After the division, fluctuations in the hedging portfolio will in principle perfectly match fluctuations in liabilities. The investment portfolio will (solely) be exposed to interest rate risk to the extent of active investments in interest-bearing assets. In such case, fluctuations would not be offset by fluctuations on liabilities. To achieve best possible match derivatives will be used.

portfolio illustrates how interest rate risk on assets and liabilities varies before and after the division of the portfolio.

After the division, fluctuations in the hedging portfolio will in principle perfectly match fluctuations in liabilities. In practice, it would not be expedient to target a perfect match simply because of the management expenses involved. We expect that, in practice, the net interest rate risk after division of the portfolio can be kept within a limit of DKK 100m.

➔ See a more detailed description of the division of the portfolio in the section *Investment activities in the annual report*

### Equity and real estate risk

The equity and real estate portfolios are exposed to changes in equity markets and real estate markets, respectively. At 31 December 2009, the equity portfolio accounted for 4.0% of the total investment assets. The proportion is expected to be between 2%-6.5% in 2010. In 2008, TrygVesta bought the head office in Ballerup, thereby increasing the proportion of real estate significantly. This proportion is expected to be reduced over time. Besides the owner-occupied properties, TrygVesta's real estate portfolio consists of office and rental properties, which account for 3.8% and 5.9%, respectively, of total investment assets.

### **Currency risk**

Currency risk is kept at a very low level. The Group's premium income in foreign currency is mostly matched by claims and expenses in the same currencies, and thus, only the profit for the period is exposed to currency risk.

TrygVesta uses currency derivatives to hedge the risk of a loss of value of balance sheet items due to exchange rate fluctuations in accordance with a general hedge ratio of 90-100% for each currency. The aim is to hedge 98-100% of the net book value of the Norwegian entity. Exchange rate adjustments of foreign entities and hedging thereof are taken directly to equity.

### **Credit risk**

Credit risk is the risk of incurring a loss if counterparties fail to meet their obligations. In connection with the investment activities, the primary counterparties are bond issuers and counterparties in other financial instruments. TrygVesta manages credit risk and concentration risk through investment limits and rating requirements

➔ *See the section Investment activities in the annual report for an overview of the bond portfolio distributed on ratings*

TrygVesta's receivables in Danish banks are covered by a government guarantee under the Act on Financial Stability (Bank Package 1) until 30 September 2010.

The financial crisis and economic downturn prevailing since mid-2008 emphasised the importance of managing risk, including credit risk. TrygVesta has no investments in sub-prime loans, CDOs or similar products, and accordingly has not incurred financial losses in this respect in connection with the financial crisis.

### **Liquidity risk**

Many businesses, in particular financial businesses, have had their access to liquidity significantly impaired during the financial crisis. TrygVesta is not exposed to the same risk of a lack of liquidity since premiums are due for payment before claims have to be paid out. Most of the payments received are placed in cash accounts or liquid secu-

rities ensuring that TrygVesta will be able to procure the necessary liquidity at all times.

### **Operational risk**

Operational risk relates to errors or failures in internal procedures, fraud, breakdown of infrastructure, IT security and similar factors. As operational risks are mainly internal, TrygVesta focuses on establishing an adequate controlling environment for the Group's operations. In practice, this work is organised through a structure of procedures, controls and guidelines that cover the various aspects of the Group's operations, including the IT security policy. TrygVesta has also set up a security and investigation unit to handle matters such as fraud, IT security, physical security and contingency plans.

TrygVesta has prepared contingency plans to handle the most important areas, such as the contingency plans in the individual parts of the business to handle an event of a prolonged IT breakdown. The Group has also set up a crisis management structure should TrygVesta be hit by a major crisis.

### **Strategic Risk**

Strategic risk relates to TrygVesta's choice of strategic position, including IT strategy, flexibility relative to the market, business partners and reputation as well as changed market conditions.

Strategic risk is managed through a strategic planning process. The Supervisory Board defines the overall strategy in the middle of the year within the framework of the Group's corporate vision, and the Group Executive Management uses this as the basis for further strategy work. We use the balanced scorecard (BSC) as a tool to ensure current follow-up on the implementation of the strategy and the initiatives launched in the business areas. The overall strategy is implemented through preparation of business plans for the individual areas, describing planned activities, all of which are supported by BSC, and risk analyses are prepared for all principal activities. The risk analyses of the business plans are also used as input for the Group's risk identification process.

In addition, the market is monitored continuously to ensure that we have an up-to-date basis for assessing external conditions, be it competitors' market initiatives, new legislation or other external factors that may impact the Group.

## **Our Overall Risk Exposure**

We consider strategic risk and insurance risk (underwriting and provisions) to be the most important types of risk we are exposed to. Both types of risk are closely related to our operations as a general insurer. Investment risk is at a satisfactory level due to the current investment strategy. We consider operational risk to be less important than the other risk types.

The financial crisis has had an adverse impact on TrygVesta albeit only to a fairly limited extent, thereby illustrating the results of effective risk management in the Group. We consider our risk identification process and overall risk exposure to be satisfactory relative to the risk appetite defined by the Supervisory Board. However, we are continuously seeking to optimise the relationship between risk and return and to reduce unwanted risks further.