

# Financial Placement and Technical Reserves in Insurance Accounting<sup>#</sup>

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## Introduction

The insurance system is an exceedingly important branch of every free market economy and its function is non-fungible in a modern state with a free market economy. All changes in the society directly reflect into the insurance industry as well. New risks appear hence new insurance products appear as well.

The insurance system represents a specific branch of economics that provide a financial elimination of risks that influence activity of an individual economic entity. In conditions of the Czech Republic under the term insurance system is understood a branch of economics that deals with insurance, security and intermediary activity in area of commercial insurance and connected activities. For all risk covered by an appropriate insurance which was undertaken by the insurance company is used a term insured risk. The insured risk is always determined by the insurance law scope, the insurance time validity is mentioned – period of coverage and local definition. The activity of insurance companies is at the present time controlled by laws<sup>1</sup>, public notices, stipulations and by-laws of insurance companies that represent so-called insurance terms and conditions that embody legal regulations of an explicit kind of insurance.

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<sup>1</sup> Law no. 363/1999 Code, about insurance business, as amended hearing, notice 303/2004 Code., that are applied a provision of the insurance business act, law no.37/2004 Code., about insurance agreement, law no. 350/2006 Code., about insurance agents, law no. 563/1992 Code., about accounting.

**Premium** represents a pre-paid hire for assignment of negative financial implications of accidentality from the enterprise and other economic entities to the insurance company. The insurance payment represents a compensation for damage by the insurance company on the insured property, compensations from the casualty, life, retirement income insurances or the insurance payment with the liability insurance.

Insurance companies can't be considered only as companies providing insurance protection for their clients but also as significant investors that as a result of their activity temporarily dispose with available financial assets of their clients. From the financial assets received for taken insurance premium, the insurance companies create so-called "monetary reserve" (technical reserves that are financially placed) that in case the insured event occurs are used for payment of identification. Whereas one of insurance essential features is the time disagreement between the premium payment (with a financial service – premium purchasing) and Insurance payment providing (the insurance payment can occur many years after the premium payment) the insurance companies carry business with these assets.

The insurance system branch which is analogous to the banking system carries business with a relatively low operating of the original capital and manages financial assets of their clients. That is why banking and insurance systems belong among most regulated branches in developed economies. The necessity of regulation comes out of the insurance service character. The goal of the state regulation is above all the protection of clients that have made an insurance contract, providing the insurance system branch stability, providing the transparency with running the insurance and covering activity.

The insurance market in EU is a matchless world example of integrated insurance area. In EU is from the second half of 90's exercised a system of one permission (one licence – European passport) form insurance activity running. To the insurance company founded and registered in one of the EU member countries is provided to sell its products via offices in another EU country or sell them directly from its head office via borders in all EU area by virtue of this only license. In the host state is the license made up only by a notification procedure. A pertinent agency of the state authority is than responsible for the insurance company financial health monitoring and this authority is mutually accepted within European Union.

Basic classification of premium is for the **non-life insurance** – above all represented by property insurance, liability insurance, casualty insurance and private health insurance and for **life insurance** – above all represented by insurance of persons. Among basic differences in accounting of insurance companies and business entities belong:

- different asset classification for financial placement and other property of the insurance company,
- creating technical reserves,
- valuating by the fair value at financial placement and technical reserves to the date of final accounts or to another moment when the final accounts is made,
- separated monitoring of life and non-life insurance,
- costs and profits are divided in accordance with activities on a servicing account for the life insurance and a non-servicing account,
- accounting about reinsurance,
- insurance company solvency declaring.

The final accounts of commercial insurance companies consist of: balance, report of profits and losses, report of changes in owned capital, report of financial flows and enclosure. The most important item on the side of assets in the balance is the financial placement and accounts receivable from direct premium and assurance. On the side of accounts payable than technical reserves and accounts payable from direct premium and assurance. On catching and declaring of these items is concerned following entry:

## **1 Financial placement**

The basic aspect in accordance with is necessary to differ the assets of insurance companies is the purpose they serve to. In accordance with the purpose are insurance companies assets monitored separately in the accounting. The property which the insurance company guarantees for its obligations resulting from insurance business and securing activity is monitored in an individual accounting class. – Financial placement. Other non-corporeal, corporeal and financial property that is owned by the insurance company and is made mainly for insurance company operating is caught in the account class – Non-corporeal, corporeal and financial property.

By financial placement are mentioned ways and forms of assets placing; their sources are technical reserves or own sources of the insurance company. In the Czech Republic is the configuration of the financial placement controlled by law making, in accordance with this law making the insurance companies must keep certain principles.

- assurance principle – economic return assurance of paid medium,
- profit margin principle – assurance of profitability (shares on profit, competition),
- liquidity principle – part of medium must be ready to use for payment of claims payment (managing ALM – Asset liability matching),
- diversification principle – distribution of risks between sufficient number of corporate entities.

Insurance companies try to invest into instruments that are characterized by a low risk, sufficient profit and satisfactory liquidity. Instruments of investment with high profit usually have high risks and low liquidity. Financial placement is in the Czech Republic valued since 2002 in fair value. The fair value is by law making set down as a market value, if there is an active liquidity market for a set asset, appreciation by an authorized estimation or marketing expert certificate if the market value is not at disposal or a certificate in accordance with a special law regulation.

The law about insurance business embodies into the compilation of financial placement these kinds of investments:

- estates and buildings – they are operational immovable assets that the insurance company use solely to insurance and securing activity and about non-operational immovable assets, revaluation of estates and buildings to the date of final accounts on a fair value is caught on valuation on balance items, buildings are not depreciated,
- shares, beneficial interest – overvaluation of this group of property is caught on balance items valuation,
- another financial placement – bonds, participation certificates, debit notes, derivatives, bank deposits are overvalued to the fair value in a result way,
- financial placement of life insurance if the bearer of the investment risk is the policy holder – policy holders share in the

profits from investment (e.g. unit linked), overvaluation of this group of property to the date of final accounts on the fair value is done by the result way.

The statutory framework of the Czech Republic sets down limits for the composition of financial placement, so to be kept higher mentioned principles of (assurance, liquidity etc.). Composition of financial placement

- must not overreach pertinent % from all technical reserves,
- at chosen items in addition exists a limit for one subject.

The composition of financial placement should have been in accordance with composition of technical reserves (Asset liability matching) namely above all in term of time, in term of liquidity, in term of profit, in term of composition and financial placement limits. The insurance companies in the Czech Republic present twice a year to the insurance authority Czech National Bank “Report about production and value of technical reserves and composition of financial placement” (always to 30.6 and 31. 12.).

Main differences in assignment and declaration of investments in accordance with law giving of the Czech Republic and IFRS:

- IFRS assigns on difference from CR portfolio in accordance with the company intent,
- IFRS has on difference from CR clearly set down rules and conditions for enlistment into a pertinent portfolio and transfers between portfolios,
- IFRS uses other methods of overvaluation and ways of declaration of differences from overvaluation.

The Czech Republic uses a difference to life and non-life insurance, IFRS uses a segment analysis.

## **2 Premium, receivable accounts from a direct insurance**

Premium represents a price of insurance. Insurance serves in the insurance company for coverage of insurance risk, acquisition costs, costs of management, saving items and insurance company margin. In the Czech Republic is the written insurance defined as: “specified insurance

includes all due amounts payable during the accounting period in accordance with insurance agreements independently of the fact if these amounts are related to the later accounting periods” (Code no. 502/2002). Written premium includes premium from new insurance agreements, from renewed insurance agreements, changes of existing agreements and received reinsurance premium. Specified premium represents a profit for the insurance company and simultaneously appears a receivable account behind the client (Czech Accounting Standards for insurance companies 2004).

Often discussed question is whether account about the premium in a set year in accordance with its maturity or account about the year’s premium without the connection to particular payments. I think that written premium originates without a connection to particular payments because the payments themselves are not a specification but only a way of payment.

Example: In the agreement is set down a year’s insurance 2 800 CZK from 1<sup>st</sup> April 200X (payable in quarters at value 700 CZK to 2<sup>nd</sup> April, 2<sup>nd</sup> June, 2<sup>nd</sup> October in a current year, 2<sup>nd</sup> January in the following year). Of the day 1<sup>st</sup> April 200X arises a receivable account behind the client and a profit from a financial bargain at value 2 100 CZK that would be paid in quarters. In practice we meet with a situation that the insurance companies account the year’s premium in accordance with their maturity, in our example would account three times a specification in a current year (a receivable account behind the client and profit at high 700 CZK) and their payment. This is not in accordance with a true and honest picture of the insurance company activity. This situation would be possible in a case the insurance company made an agreement with the client for a quarter of the year that will be prolonged repeatedly than will arise a receivable account behind the client and profit always to 1<sup>st</sup> April, 1<sup>st</sup> July a 1<sup>st</sup> October in a current year at value 700 CZK.

Another opened question arises about a written premium only at value of payable premium in the current year? Doesn’t it more true to define the premium in accordance with the validity of the contract (as it is valid in some Anglo – Saxon countries)? Doesn’t arise to the insurance company from a made agreement a claim for the premium minimally for a period when the agreement is from the client’s party non-callable?

Example: An insurance agreement for 5 years is made. The client can terminate the premium at first after 18 months of premium duration. Into the written premium is caught a written premium for the 18 months because for this time the insurance company can be sure that will receive the premium. Within EU there is no a high profile to this dilemma.

Even for insurance companies is valid that profits and costs must be declared at the moment of their occurrence and in a period they are objectively and time connected with, it means keeping the actual principle of accounting. Part of the specified premium that is in the insurance company payable in the current year is related to following accounting periods must be time resolved with help of the technical reserve for unearned premium, separately for life and non-life insurance<sup>2</sup>, i.e. on the technical account of the non-life insurance or to the technical account of the life insurance. Technical insurance reserves are created into cost and are payable into insurance company profits. Direction of EU make possible to use several methods for the calculation of unearned premium reserve (method with linear risk distribution – pro rata temporis, twenty-fourth, twelfth or methods with non-linear risk distribution).

Example: Made insurance agreement for household insurance from 1<sup>st</sup> May 2006 to 30<sup>th</sup> April 2007, year premium 1200 CZK. Agreed semi-annual payments with issuing date 1<sup>st</sup> May and 1<sup>st</sup> November.

Written premium in year 2006 amounts 1 200 CZK, unearned premium reserve 400 CZK, earned premium in year 2006 amounts 800 CZK.

### **3 Claims for policy holders**

The key moment for accounting catching of claims from the direct premium is determination of the accounting item realization and it pertains to the insurer on the basis of the made insurance agreement<sup>3</sup> no matter if the policyholder paid<sup>4</sup>.

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<sup>2</sup> Claim from the gross written premium doesn't arise with a statutory insurance and unit linked – here is accounted on cash base.

<sup>3</sup> In the non-life insurance can be unearned premium declared also as a part of the life reserve.

<sup>4</sup> With the exception of uncontractual statutory insurance, where the conditions are provided by law and the contract is not concluded.

Day of the accounting item realization for policyholders' claims is in the Czech Republic understood as a moment (day) of the insurance contract conclusion or a moment that is defined by these agreements (e.g. following day after the insurance contract conclusion). We can say that at the present time doesn't exist any accurate definition that would determine the moment when we account about the claims for policy holders. We declare in the insurance company balance sheet claims for policyholders in a gross value that the compensation is presented by adjusting entries to claims (estimation of amounts that the insurance company will not receive) and claims in net worth.

#### **4 Promises from the direct insurance business**

Promises from the direct premium arise at the moment of the admission amount recognition (promise) from the insurance event notification that results from concluded insurance agreements. About promises from direct insurance is accounted to the day accounting item realization no matter the insurance payment has already been paid or not. Promise occurrence to the insured entities on one party simultaneously represents for the insurance company occurrence of costs on the insurance payment<sup>5</sup> on the other party. Costs on insurance payments are lowered with compensation and regression that the insurance company sets up against another person (it means the insurance company doesn't bear costs on insurance payment to full extent). E.g. with proprietary insurance the insurance company has a right of a sanction against the person that is responsible for the loss of insured person to that was on terms of the policy relation paid the claim payment.

#### **5 Costs by the product classification of commercial insurance companies**

Insurance company cost can be divided into:

- acquisition cost on insurance agreements,
- administrative costs of the insurance company,
- costs connected with insurance agreements liquidation,
- costs connected with financial placement management.

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<sup>5</sup> With the exception of uncontractual statutory insurance, where the payment would be a necessary sign of premium accounting record.

Let's step up at least at acquisition costs for insurance agreements. The insurance companies take in all costs connected with acquisition of insurance agreements between acquisition costs. Here belong direct costs – acquisition provisions for agents, agreements forms costs, administration expenses connected with the occurrence of an agreement and enlisting into the system, costs for a medical investigation in the life insurance, even non-direct costs e.g. promotion and advertising of insurance. Acquisition costs on insurance agreements are connected with long-term insurance agreements are in accordance with the accrual accounting principle time differed (Deferred acquisition costs – DAC). In the non-life insurance is the time difference often consistent with the way of specified premium time difference calculation. In the life insurance is with time difference of acquisition cost resulted from the same mathematic methods as are used with technical reserves creation in the life insurance. Time difference of acquisition costs is in accordance with the direction E.U.<sup>6</sup> if single countries don't eliminate this possibility. Even here doesn't exist an uniform opinion for activation of acquisition costs for insurance agreements (US GAAP holds an opinion that any acquisition costs should contain only incremental cost arising by insurance agreements selling. Other cost as sell employees wages, promotion and set out indirect costs huff regardless to mentioned entity thus shouldn't be activated). Standard IFRS – 1 Insurance Agreements (1. stage) doesn't solve the dilemma of acquisition costs activation and leaves it on the insurance companies decision.

Costs and profits are sorted on a technical account to the non-life insurance and technical account to the life insurance and non-technical account. Classification cost by products and profits, separately for non-life, life and other activities of the insurance company is in accordance with direction of European Union. In IFRS sheets is also used another segmentation of costs and profits (in accordance with business branch, area, etc.).

## **6 Technical reserves**

Technical reserves are used for obligations fulfilment arising from operated insurance or securing activity. Direction of European Union that secures comparability of final accounts and consolidated final accounts of insurance companies limits reserves of the non-life and life insurance that

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<sup>6</sup> Claim payment a surrender value.

the member states were obliged to accept into their national settlements. Reserves are created to the debit of accounting item and their usage for the benefit of accounting item profit. With accounting about creation and usage of technical reserves is accounted in their gross value and about the share of reinsurers on them. In the declaration of profits and losses are reserves declared as a differential value of profits and losses at appropriate reserve. Reserves are declared in the insurance company balance in gross value, in the correction are lowered of the share of reinsurer on reserves. In accordance with IFRS is the share of reinsurer on reserves on the contrary declared in the insurance company balance sheet as a claim behind the reinsurance companies. Among the most important technical reserves belong:

- **Unearned premium reserve** is created in the life and non-life insurance and its value responds to a part of premium that is time connected with the following accounting period (unearned premium) and it is set down as a summary of these parts of premium calculated in accordance with single insurance agreements. It is a time difference of gross written premium that is in the insurance companies caught by creation of technical reserve.
- **Reserve for claims payment** is determined for promises covering from insured accidents. It is created at life and non-life insured accidents. Represents a total estimation of costs on insured accidents arisen to the end of the accounting period. It is set out in several parts:
  1. Insured accidents reported to the end of current accounting period but not settled in the current accounting period (RBNS – Reported Bud Not Settled).
  2. Insured accidents that occurred in the current year but were not reported to the insurance company (IBNR – Incurred Bud Not Reported).
  3. Estimation of claims handling costs
  4. Part that lower the reserve on insurance payment at regression, existing payments.

Of course, problems appear with reserve determination for insurance payments as e.g. late reported insured accidents, mistakes in estimations in consequence of new types of claims occurrence, low availability of historical data for estimations etc.

- **Reserve for bonuses and discounts** are created in accordance with insurance agreements. In the non-life insurance is created in case the insurance company guarantees to the client that in case of auspicious loss experience pays back a part of the premium related to the current year<sup>7</sup>. In the life insurance is often agreed a share on the profit from the financial placement as a part of the claim payment than the reserve for bonuses and losses contains these amounts if they are not included in the premium reserve calculation of life insurance.
- **Equalization reserve** is created only in non-life insurance and serves for risks insurance with significant variations of burden of losses incurred independently on the will of the insurance company (hailstorms, storms, floods). Equalization reserve doesn't enter into the funding because creation itself of this reserve is a form non-life insurance funding. Within EU is obligatory an equalization reserve at credit insurance. Methods of this reserve calculation are different in various states of continental Europe. US GAAP even IFRS don't accept this reserve<sup>8</sup> and require the insurance companies to be prepared for variations in claims payment by sufficient value of owned capital.
- **Life insurance premium reserve** is created in life insurance and because of its range is the biggest reserve. Value of this reserve is set down in terms of mathematical methods in accordance with single agreements. Represents the present value of all obligations of the insurance company arising from single life insurance agreements lowered at claims present value – prospective reserve calculation<sup>9</sup>. The insurer comes out of costs that arise from insurance agreements from the final accounts date to the life expectancy of the agreement. With calculation are used the same statistic data and the same rate of interest that was used with insurance premium rate calculation. The question of management expenses is solved by so-called zillmerization (incidental expenses connected with the conclusion of the insurance agreement are amortized from the premium life insurance reserve). It can come to a situation that because of that the reserve in the first years of the contract duration would be negative.

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<sup>7</sup> Article. 18 guideline EU 91/674/EHS.

<sup>8</sup> Fail to satisfy the requirement of reserve – company has current obligations (contractual or uncontractual), that is an effect of a particular event in the past.

<sup>9</sup> This method is in accordance with IFRS.

These negative values are in the accordance with the legal regulations of the Czech Republic compensated at the reserve with zero values and the negative value is time differed and is taken from the saved up reserve in following years.

- **Financial placement reserve by the name of insured** it is equivalent to the insurance reserve of the life premium for special life premium products when the whole investment risk is beard by the policy holder (unit linked, variable life). The reserve is created after premium payment that is lowered for the risk premium and fees. The insurance company doesn't guarantee the minimal rate of return (technical-insurance interest). Claim payment is set by the market value of client's share base value in the investment fund; this can grow or drop depending on the fair value of financial placement.

Technical reserves are also estimated in the Czech Republic since 2002 on the "fair value". First version of the "fair value" is in accordance with the accounting act the market value. With regard to not existing trade on which we can find out the market value of technical reserves, this possibility is eliminated. The second possibility is a qualified estimation or expert's estimation. By that should become a statement of a responsible insurance mathematician if we could consider him as an expert that is responsible for a value of technical reserves. The third possibility is to set down the fair value of technical reserves in accordance with special legal regulations. Unfortunately by this legal regulation is an insurance business act which sets down that with calculation of technical reserves must be used the same statistical data and the same rate of interest as were used with calculation of the insurance premium rate.

In practice is declaration of technical reserves in "fair value" a formal act that has at present time nothing to do with the fair value, it is understood in this way by international accounting standards. Technical reserves in the Czech Republic are tested for their sufficiency to the date of financial statement (according to IFRS 4 standards)<sup>10</sup>.

In 2004 was issued the first standard for insurance agreements – IFRS 4. Even this standard doesn't implement declaration of insurance obligations in "fair value" so far. The reason is the uncertainty if the

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<sup>10</sup> For comparison see Casualty Actuarial Society (2008), Berquist and Sherman (1977). Taylor, McGuire and Greenfield (2003).

declaration of insurance obligations in “fair value” would bring more relevant and more dependable estimation than is the current estimation in accordance with the technical reserves, above all at situation when the mathematical models for determination of fair value for insurance obligations have not been tested. Implementation of estimation in “fair value” is expected in the II. standard stage for insurance agreements, earliest around year 2011.

## **Conclusions**

By the end we can say that declaration in the Czech Republic is at the present time in accordance with valid EU regulations, differs from generally accepted used by US GAAP so IFRS. The main difference between Czech legislation and IFRS is different classification of the investment portfolio and determining conditions for placing or moving items in one of groups. Another significant difference is valuation of financial placement and technical reserves in “fair value” (prescribed by the Czech legislative framework). For financial placement, it means revaluing estate to the fair value (market value). But there is not a liquid market that would set the price in the Czech Republic. In contrary to IFRS, technical reserves have been valuated since 2002 in “fair value”. Although IFRS reckons valuating insurance contract files on the basis of “fair value”, the “fair” measurement base for insurance liabilities is not yet defined (Bokšová, 2008). Among other differences, we can choose different interpretation of equalization reserves. Commercial insurance companies that draw up financial statements according to IFRS must dissolve the equalization reserves and establish a fund within their equity. For these reasons it seems obvious that keeping true and fair view according to the Czech legislation and IFRS will lead to different financial results.

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### **ABSTRACT**

The subject of insurance companies is to provide insurance protection based on commercial principles. All changes in the society are directly reflected in the insurance activity. New risks appear and therefore new insurance products appear as well. The insurance business intervenes into all areas of the economic and social life in the Czech Republic. Insurance companies cannot be treated only as companies offering insurance protection, but also as important investors who, as a result of their activity, dispose with temporary available resources of their customers. As situations and existence of time discordance between provisions creation and their usage are occasional, insurance companies carry business with these provisions resources.

**Key words:** Insurance; Financial placement; Premium; Technical reserves.

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