

GENERAL RISKS AND UNCERTAINTIES OF REPORTING AND MANAGEMENT REPORTING RISKS

DANIELA N. SAHLIAN*

CAMELIA I. LUNGU**

Abstract

Purpose: Highlighting risks and uncertainties reporting based on a literature review research. Objectives: The delimitation of risk management models and uncertainties in fundamental research. Research method: Fundamental research study directed to identify the relevant risks' models presented in entities' financial statements. Uncertainty is one of the fundamental coordinates of our world. As showed J.K. Galbraith (1978), the world now lives under the age of uncertainty. Moreover, we can say that contemporary society development could be achieved by taking decisions under uncertainty, though, risks. Growing concern for the study of uncertainty, its effects and precautions led to the rather recent emergence of a new science, science of hazards (les cindyniques - l.fr.) (Kenvern, 1991). Current analysis of risk are dominated by Beck's (1992) notion that a risk society now exists whereby we have become more concerned about our impact upon nature than the impact of nature upon us. Clearly, risk permeates most aspects of corporate but also of regular life decision-making and few can predict with any precision the future. The risk is almost always a major variable in real-world corporate decision-making, and managers that ignore it are in a real peril. In these circumstances, a possible answer is assuming financial discipline with an appropriate system of incentives.

Keywords: Risks, Uncertainties, Reporting, Risk Recognition, Risk Management

Introduction

Our paper is meant to develop an analysis, based on fundamental research, regarding the impact on managerial perception of introduction the economic and financial theory of risk and uncertainties in information reporting process. It is important for economic entities to realise this impact on their day-to day activities in order to help them to progress. The connection between companies' activity and risk presentation impact is supported by managers competencies and skills in evaluating and managing risks in order to decide the format of their presentation.

In recent years, the concepts of risk and risk management have been the subject of study for many specialists in the field of economics but also in other areas¹. On the one hand, this may be generated by the significant risk debates taken by sociologists as Beck² and Douglas³, and on the other hand, risk management standards issued by professional organizations have also determined a higher interest for risk management systems' development (for example Association of Insurance and Risk Managers).

An important aspect of the risk debates concerns the presentation of risk information by the entities to shareholders, through the annual financial statements. Schrand and Elliott (1998), at a conference sponsored by the American Accounting Association/Financial Accounting Standards Board (AAA/FASB) in 1997 drew attention to the fact that U.S. companies provided insufficient information about risks in the annual financial statements.

* Lecturer, Ph.D. candidate, Academy of Economic Studies, Bucharest (e-mail: sahliau.daniela@gmail.com).

** Associated Professor, Academy of Economic Studies, Bucharest (e-mail: camelia.lungu@cig.ase.ro).

¹ M. Power, *The risk management of everything*. (London: Demos, 2004).

² U. Beck, *Risk society – Towards a new modernity*. (London: Sage, 1992).

³ M. Douglas, *Risk and Blame: Essays in Cultural Theory*. (London: Routledge, 1992).

The Institute of Chartered Accountants in England and Wales (ICAEW) also noted, this lack of information about risks, and issued three drafts (1998, 1999 and 2002), in order to encourage directors of UK companies to report more detailed risk information.

Results of a survey of Great Britain institutional investors (Solomon et al., 2000) support the AAA / FASB and the ICAEW's view. Thus, because a significant number of respondents agreed that entities' directors first have to provide more comprehensive and detailed information about the risks and then to consider publishing risk management policy statements. Investors also approved the importance to assess the risk profile of a company; therefore, relevant and reliable information on risks must be provided⁴.

Recent studies on the concept of risk are based on the idea that a risk society exists, because we become more concerned about the human actions' impact on nature than the nature's impact on us. Beck⁵ refers to these risks as a "manufactured uncertainty" and notes that it is paradoxical that they appear as we search to reduce risk.

Risk can take various forms ranging from specific risks faced by individual firms (such as financial risk, or risk of a strike among the workers) through the current risks faced by certain industries (such as banking, car manufacturing, or construction) reaching more general economic risks resulting from interest rate or currency fluctuations, and last but not the least, the risk of recession. The concept of risk has often negative connotations, in terms of potential loss, but there also exists the potential for greater returns.

Clearly, the risk is involved in most decision-making aspects, whether in a company or in everyday life, and few can accurately predict future. It is almost always an important variable in the real world of corporate decision making, and managers who ignore it are in real danger.

1. Definition of risk

Etymology and geographical origin of the word risk is controversial. In French, *risque* appears in the early sixteenth century, as in German (*risiko*). *Se risquer* (French language) is attested by 1580, and *riskieren* (German language) only in the seventeenth century. In English, the script *risque* is used in 1661, and the script *risk* in 1741. In Castilian, was used *riesgo* by 1570. It is recognized that all these terms were taken directly or indirectly, from Italian *risco* (later, *rischio*). The ancient Italian certificates don't date previous of thirteenth century, and came from the superficial Latinized forms *rischium*, *risigus*, *riscus*. They are in expressions like *rischium et fortuna*, *periculum et risigum* used in various contracts. The Latin's word etymology is also obscure: this may be *rixare* or *resecare* who have a similar meaning. Different from that of danger, hazard or chance, modern sense has emerged in the eighteenth century along with scientific research on risk⁶.

As for the definition of risk, there is known a large number of approaches that use different keywords, as shown in the examples below.

T. Hindle et al. (1998), in the *Finance - The Economist Books proposed Guide*⁷, define the risk as being the danger to record a loss. Against the risk, investors get a return. In general, the higher the risk is, more substantial the gains will be. About those who maintain the safety line (investing only in government bonds) is said to have risk aversion.

In their study, *Managerial Finances*, Halpern et al. (1998) define asset risk as being the likely variability of future profitability of the asset⁸.

⁴ P.M., Linsley and P.J., Shriver, "Risk reporting: a study of risk disclosures in the annual reports of UK companies," *British Accounting Review* 38 (2006): 387-404.

⁵ Beck, Risk society – Towards a new modernity

⁶ A. Guerreau, "L'Europe Medievale: une civilization sans la notation du risqué," *Risques* 31 (1997):11.

⁷ T. Hindle, (coordinator), *Finanțe. Ghid propus de The Economist Books* (București: Nemira, 1998).

⁸ P. Halpern et al., *Finanțe manageriale*, (București: Economică, 1998), 22.

Dictionary of Economics defines risk as an event or process that is uncertain and likely to cause a failure, a loss in operating or economic activity⁹.

*Dictionary of ergonomics*¹⁰ defines risk as the possibility to occur, in the development of an action or task, less known or unknown circumstances, having adverse effects on the possible and planned outcomes arising from a future action subject to the influence of accidental factors.

*Complete Dictionary of the Market Economy: A Practical Guide*¹¹ and *Romanian Explanatory Dictionary* (2009) define risk as the possibility of reaching a danger, of having to face a trouble or to incur a loss; a potential threat.

The Investopedia Dictionary defines risk as the possibility that current investments will not achieve the expected return.

In his paper, *Three decades of risk research. Accomplishments and new challenges*, Ortwin Renn¹² identifies four general risk types:

1. Sword of Damocles - the risk is considered a threat which can strike at any moment. There is a sense of insecurity among human subjects;
2. Pandora's Box - the risk is an invisible threat to health and human welfare. It is always a bad thing;
3. Athens balance - the risk is perceived as a possible financial loss as a result of decisions taken;
4. Myth of Hercules - the risk is desired, sought, assumed, and in other words actively exploited.

William F. Sharpe¹³ defines risk as the general possibility of a loss or damage.

According to *Lexique d'économie*¹⁴ risk is a random phenomenon corresponding to a situation where the future is not predictable only with certain probability, as opposed to allowing a forecast uncertainty made.

Jaquillat and Solnik¹⁵ in *Marchés financières: gestion de portefeuille et des risques* define the risk as:

- The sacrifice of an immediate advantage or the absence of immediate consumption in exchange of future benefits;
- The loss of a clear and immediate advantage of acquisition and possession or consumption of a real good or a service for an uncertain future advantage through investment in securities;
- The uncertainty about the financial value of assets that will occur at a future moment in time.

*Economic and Financial Vocabulary*¹⁶ defines risk as a key element of uncertainty that may affect the activity of an economic agent or a transaction.

Dorfman¹⁷ considers the risk to be a random variation of possible outcomes in relation to an event, while Mehr and Hedges¹⁸ link the risk to the losses that can be greater than normal or regular.

⁹ N. Dobrotă et al., *Dicționar de economie*, (București: Economică, 2000).

¹⁰ C. Roșca, *Dicționar de ergonomie*, (Craiova: Cerți, 1997).

¹¹ G. Bușe et al., *Dictionarul complet al economiei de piață: ghid practic*, (București: Secretariatul pentru Mahamudra, 1995)

¹² O. Renn, "Three decades of risk research. Accomplishments and new challenges," *Journal of Risk Research* 1 (1998):49-71.

¹³ W.F. Sharpe et al., *Investments* (6th Edition), (Prentice Hall, 1985).

¹⁴ A. Silem et al., *Lexique d'économie* (9e édition), (Daloz-Sirey,2006).

¹⁵ B. Jacquillat and B. Solnik, *Marchés financières: gestion de portefeuille et des risques*, 3^e edition, (Paris: Dunod, 1997).

¹⁶ J. C. Colli and Y. Bernard, *Vocabular economic și financiar*, translation by Eugenia Theodorof, Ioan Theodorof, (București: Humanitas, 1994).

¹⁷ M. S. Dorfman, *Introduction to Risk Management and Insurance*, 8th edition, (Prentice Hall, 2004): 3.

¹⁸ R. I. Mehr and B. A. Hedges, *Risk Management Concepts and Application*, (New York: McGraw-Hill, 1974), 10.

The previous presentation shows that there is no single definition of risk; each activity defined its own definition of the concept of risk. However, the general idea that emerges is that risk is traditionally defined in terms mostly related to uncertainty.

In this context, to formulate the concept of risk becomes a difficult task. We support the general sense, that risk is a future and uncertain event, able to occur but whose appearance is uncertain, as:

- it is a future event because his appearance is related to a future period;
- it is uncertain because no one knows exactly when it appears, emerges or what form it will manifest in;
- its appearance can be measured by appealing to statistical analysis, the science of probability and actuarial calculations.

2. The impact of introduction of risk and uncertainty economic and financial theory

The emergence of risk and uncertainty theory is due to the need of improving models that explain the functioning of modern economies. Since the second decade of last century, we have witnessed the extinction of the certainty premise, and of the economic agents' foresight, while it gained ground the hypothesis of individuals and economic entities' actions in uncertain future conditions and risk situations.

This vision change had valuable effects on the economic research framework and on practical applications. It allowed the approach of difficult to explain phenomenon in terms of certainty, such as the fact that entrepreneurs are not always eager to maximize the profit. It also provided a better understanding of the behaviour of individuals and businesses, where chance plays a crucial role, especially in finance, related to the stock market risk or foreign exchange risk, but also in other areas as natural resource exploitation.

The economic theory of risk and uncertainty is based on a number of fundamental concepts: the utility expectation, assumptions on the attitude towards risk (risk aversion preference or indifference), or exchange rate risk. The criteria based on maximizing the expected utility has been developed by Daniel Bernoulli¹⁹. The expected utility is a model of behaviour under conditions of uncertainty referring to individuals' decision taken in the presence of risk in order to maximize the hope of winning, as the final function of wealth.

An individual can choose between different decisions of gaining, having uncertain consequences as to play the lottery or not, to buy shares or not, to play or not on the stock market, to ensure or not their activity etc. All these relate to the possibility of earning under uncertainty. The future is known with uncertainty, but this uncertainty is limited. There may appear only two events, opposite and incompatible: the decider either wins or loose on his actions. Such pairs of mutually exclusive events have the probability q , respectively, $1 - q$, where q takes values between 0 (when the event is impossible) and 1 (when its production is safe), as the basis in probability theory application.

From each of the mentioned events derives a result which can be positive or negative and is denoted by x , respectively y . Maximizing utility expectation leads to the relation $qx + (1-q)y$. Thus, for an economic entity, if $U(x)$ and $U(y)$ are expected utilities, for x and y types of gains, the proposed utility indicator is $qU(x) + (1-q)U(y)$. expected utility model influences decisions under uncertainty in two ways: first, because of the so-called *St. Petersburg paradox* (a paradox of the probability theory, in which a participant will pay only a small sum of money for an infinite greater expected value as described by J. Fraysse²⁰ in 1994) and second because of the common sense. The result is that the decision is not determined by the mathematical gain expectation, but by the real one. The holder of a lottery ticket that gives him 50% to win 10.000 lei (meaning 5.000 lei as mathematical gain expectation) has every reason to decide to sell it for a certain amount of 4.000 lei.

¹⁹ D. Bernoulli, "Exposé d'une nouvelle théorie de la mesure du risque," *Risques* 31 (1997): 12.

²⁰ J. Fraysse, "Espérance d'utilité," *Risques* 17 (1994): 69.

The expected utility model and its applicability in decision making process have their flaws and opponents. Determination of expected utility is based on objective probabilities. A number of authors have shown that individual behaviour in decision-making matters in the situation of *imperfect information*. They emphasized that, faced with the decision-making the individual manifests an *ambiguity aversion*. *Ellsberg's paradox*²¹ show preference for those lotteries experiments in which subjects have more information on the likelihood of various results. According to Ellsberg's paradox, people prefer to bet on a box with 50 red balls and 50 blue balls than on one with 100 balls of unknown number of red or blue balls. The probability of winning is the same in both cases, but people, nevertheless, prefer to bet on a familiar scenario than on unknown one. These observations have led to some reconsideration about the expected utility model and about the alternative concept of *unexpected utility*²². This type of study, based on the unexpected utility model recalls the criteria of choice between prevention, self-insurance and insurance²³.

3. Risk recognition

An investigation of Stanton and Stanton's in 2002 on corporate annual reports research identifies a number of disclosure studies published in the period 1990–2000, none of which specifically examine risk disclosures. There have, however, been a number of risk-related papers published on derivative and market risk disclosures aspects. The rationale underlying the development of these studies was that disclosure of market risk information would be useful for shareholders to valuate companies' activity²⁴.

Linsley and Shrivs also suggest that the provision of forward-looking risk information would be especially useful to investors. They refer also to Dietrich et al.'s experiments that provide support for the usefulness of releasing future risk information, concluding that overt risk disclosures lead to improved market efficiency. The two major obstacles to increased risk disclosures that Linsley and Shrivs consider are the reluctance of directors to release risk information they deem too commercially sensitive and their reluctance to provide future risk information without safe harbour protection²⁵.

One of the most extensive risk reporting studies is Beretta and Bozzolan's (2004) analysis of the Management's Discussion and Analysis (MD&A) section of the annual report for a sample of 85 companies listed on the Italian Stock Exchange²⁶. A key conclusion is that companies focus upon disclosing information on past and present risks, rather than future risks. Where future risks are disclosed, directors are reluctant to indicate whether the impact is likely to be positive or negative. Additionally, directors have a predisposition to self-justification when reporting on risk; that is they feel compelled to attribute risks with negative outcomes to external events. Ascribing the cause of negative outcomes to factors that are beyond directors' responsibilities suggests that attribution theory may be a factor in risk reporting.

Previous general and environmental disclosure studies have often found that a positive relationship exists between the size of the company and the number of disclosures. For example, Firth (1979) and Beattie et al. (2004) find that a positive size–disclosure relationship exists for

²¹ D. Ellsberg, "Risk, Ambiguity and the Savage Axioms," *Quarterly Journal of Economics* 75 (1961).

²² F. X. Albouy, "*Utilité non esperée*," *Risques* 17 (1994): 161.

²³ K. Konrad and S Skaperdas, "Self insurance and self protection: a non-expected utility analysis," *Geneva Papers on Risk and Insurance Theory*, 18 (1993): 131-146.

²⁴ T. J., Linsmeier and N. D. Pearson, "Commentary: Quantitative disclosures of market risk in the SEC release," *Accounting Horizons* 11 (1997): 107–135.

²⁵ P.M. Linsley and P.J., Shrivs, "Risk reporting: a study of risk disclosures in the annual reports of UK companies," 387-404.

²⁶ S. Beretta and S. Bozzolan, "A framework for the analysis of firm risk communication," *The International Journal of Accounting*, 39 (2004): 289-295.

samples of UK companies and Hossain et al. (1995) find a similar relationship in non-UK company studies.

The ICAEW (1999) have argued that companies disclosing more risk information will find that the marketplace better understands the company's risk position and the company is then deemed to be less risky than before. Therefore, increased risk disclosure could impact upon the perceived level of company risk, although to what extent is unknown.

Previous studies²⁷ testing for a relationship between leverage, which is a possible measure of risk, and the number of disclosures, have not been decisive. Ahmed and Curtis cited Hossain et al. (1995) that found no association but, also, Malone et al. (1993) that found a positive association. It was found that there was limited reporting of future risk information based upon studies of German, UK and Italian companies, and managers expectation to provide forward-looking risk information on their own initiative and to provide such information in a sufficient and credible manner, is unrealistic in at least two reasons: first, as is shown by Ryan²⁸ annual reporting purposes is to perform a management function and, therefore, include historical data, and secondly this information is inherently uncertain and company directors fear that the lack of reliability may expose them to losses²⁹.

4. Risk management

The risk management policy is a document that must clearly provide the essential characteristics of the risks to which the company is exposed. This is how the company defines and measures its activity related risks, identifying the type and source of risks to which they are exposed as well as the exposure limit they can handle. It may be specified the desired degree of diversification as well as the concentration risk tolerance.

Risks identification. Exposure to risks can be easily ignored or forgotten in the light of their excessive familiarity, or in the light of indifference to new risks. For example, many companies do not protect their exposure to exchange rate risk because there are safe methods of assessment or risk reduction. Equally, failure to identify any new risks or unusual combinations of risk can lead to disaster.

It is therefore necessary to have reporting systems in order to identify the risks, which may include advice on:

- Separate description of each financial instrument and the associated liquidity;
- Information about the market: time series of interest rates and exchange rates, price index, historical volatility and correlation charts.

Risk assessment. Considering that risks are treating unexpected gains or losses, their evaluation is reflected in statistical models establishing a set of parameters and assumptions supported by historical events from time to time and trading strategies.

Risk assessment is based on the selection of a limited number of risk factors and a range of models to describe the uncertainty of future values of these factors and the impact on the value of individual financial instruments, and finally the portfolio.

Measuring and managing risk may be done by:

- Methodical appliance of portfolio sensitivity tests in order to estimate the possible economic losses (and their effect on capital), within chosen market conditions including atypical ones. The results of these tests should be discussed with senior managers and should direct their appetite for market risk;

²⁷ K. Ahmed and J. K. Courtis, "Association between corporate characteristics and disclosure levels in annual reports: A meta analysis", *British Accounting Review* 31 (1999): 36 – 61.

²⁸ S.G. Ryan, "A survey of research relating accounting numbers to systematic equity risk, with implications for risk disclosure policy and future research," *Accounting Horizons* 11 (1997): 82–95.

²⁹ P. Linsley and P. Shrivs, "Disclosure of risk information in the banking sector," *Journal of Financial Regulation and Compliance* 13 (2005): 205–214.

- Frequency test patterns generated by the measures of risk management designed to assess their accuracy and to examine the exemption to the established confidence intervals;
- Measuring the extent to which society is exposed to various individual categories of specific risk and global risk;
- Analyzing the effect of new contracts or transactions on the current situation of market risk.

The models tested over the years include:

- Statistical models (probability) that describe the uncertainty about the future values of market factors (eg. GARCH models and stochastic volatility models);
- Pricing models that relate specific instruments to prices and market factors (eg. Black-Scholes-Merton formula);
- Aggregation of risk models that assess the corresponding uncertainty of future values of financial instruments portfolio (VaR models using simplified estimates in order to establish a probability distribution over future values of a static portfolio in a chosen period of time).

Monitoring risk. The risks themselves cannot be monitored (but can be revalued more often), instead, the results, procedures and exposure can be monitored by specialists and presented in various reports. At the company level some reports contain information and comments related to different risks faced by an entity, market development and the maximum concentration areas subunits, type of asset, etc. Others refer to the risk limits or sub-type of activities related to VaR analysis. Thus, the updating and reporting relevant information may be assured.

All these reports should be as complete as possible and should provide accurate and in time information on risks in order to ensure the opportunity of any remedial action required. Certification of the monitoring process may be done to determine its consistency with both current market conditions and risk tolerance of the company.

Risk Control. The control must be viewed in the sense of obtaining a balance between risks and benefits, given the dynamic ways to manage risks, different than some rigid templates of control. There is a general rule but the following formula may be addressed:

- Establish a structure to limit the risk by addressing the key factors of risk issuing correlated to the size and complexity of the company;
- Setting limits on gross and net positions of risk concentrations and on the maximum loss acceptable;
- Setting alert signals when the limits are exceeded, requiring review and remedial actions.

Although well understood, company's risk is still undetectable in many cases and its evaluation may be based on a number of scenarios. It relates to the less liquid assets and liabilities that cannot be assessed objectively and reasonably. Fortunately, the adoption of international financial reporting standards that favour fair values of assets, liabilities and owner's equity, without affecting the reporting of company's profit may encourage managers to pay more attention on communicating risk information.

Conclusions

Implementation of risk strategy hardly depends on business, environment, culture, organization and objectives of individual companies, the task of risk management applied to company's risk including the four well-known themes, namely: identification, assessment, monitoring and control. Qualitative conceptual understanding of this topic for discussion is essential as long as the purpose remains the strengthening of stability while maintaining a reasonably competitive environment.

However, the adoption and development of companies' improved risk policies should be an important objective beyond the requirements of authorities. Establishing a prudent goal (setting a limit to the risk of insolvency) or economic objectives such as balancing the risks with the benefits should aim to broaden the spectrum of risk management activities.

Both the accounting literature and the main international accounting organisations recognize the need to complement the information currently supplied by companies with reports on the levels of risk they assume, in order to serve the purposes of users in their decision making processes. For future research we intend to draft a formal framework, that has still not been established, within which companies can operate when it comes to deciding which risks they should report, how these risks should be quantified and where they should be presented.

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