

# Risk Management at Dutch Housing Associations

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Thesis

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## Summary

For my graduation assignment the 'Nederlands Adviesbureau voor Risicomanagement'<sup>1</sup> (NAR) asked me to do research on how risk management has been filled in at housing associations in the Netherlands. The term 'Risk Management' is since World War II an evolving concept in Business Economics and risk management is often present in organizations. Different areas of attention, which are also included in the frameworks of standardization organizations as COSO and AIRMIC, that come with risk management in organizations include:

- Identification of risks that threaten people, material and immaterial interests and activities.
- An analysis of the probability and effect that risks can bring with them.
- A study on the methods to diminish or eliminate the risks. And based on this study, taking measures to avoid, prevent and lower losses.
- Studying risk financing to bear the potential losses. Think of bearing losses directly from current assets, specially created reserves or provisions, or by agreements and insurances.
- Regularly testing of the decided policy whether the policy is effective in the –changing- internal and external environment.

Dutch housing associations are non profit organizations (often foundations) with a public function to provide social housing to let affordable houses. Due to the stricter regulation (BBSH) and the introduction of corporate governance codes (Aedescode and Dutch Housing Corporate Governance Code) it has been noticed by e.g. the Dutch Central Fund for Housing (CFV) that risk management is becoming a major point of attention for housing associations. The problem statement of my research was therefore: *To what extent do housing associations in the Netherlands know and manage their risks?* To provide an answer on this statement the following research questions were set up:

1. What techniques do associations use to identify their risks?
2. What techniques do housing associations use to analyze their risks?
3. What organizational provisions have been made to manage risks effectively?

A survey was sent to all financial managers of 449 housing associations in the Netherlands to get answers on these research questions. The resulting valid response of 20% was used to analyze the results in order to provide a decent picture of the use of risk management at associations. We must note that asking financial managers can give a bias in the results, as this is voluntary response from managers who may have relative more interest in the subject of risk management. But it was also noted that the resulting sample was found representative for the whole population of housing

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<sup>1</sup> Dutch Bureau for Risk Management ([www.risicomanagement.nl](http://www.risicomanagement.nl))

associations. After analyzing the results of the survey, a model has been setup to determine in what extent risk management is present at housing associations. This model assigns a Risk Management Score for each housing association. The scores were given on the presence of aspects of risk identification, risk analysis and organizational provisions.

The general conclusion is that most housing associations have a great opportunity to improve their risk management on these elements. The results show e.g. that just 34% of respondents who claimed to have risk management introduced ('risk management adopters') have a list with risks and just 40% has a formal written risk management policy. The lack of presence of these basic risk management aspects is also coming back in their Risk Management Scores. The results in general show that risk management is often not filled in at these organizations in the way it should be done according to literature. A reason could be that the corporate governance codes applying to associations do not give strict guidelines on *how* 'good governance' should be filled in and that risk management is not perceived to be fully necessary. Another reason may be that the Aedescode is considered as more or less as a piece of paper, since the code is a product of self regulation of the industry and there is no real maintaining of this code by any external or independent body outside the industry.

Housing associations use mostly 'internal audits' and 'analysis of financial reports' to identify their risks. In identifying project risks 'scenario analysis' is a common tool. But it can not be concluded from the results how these techniques in particular are used. This in general holds for all used techniques. It is very likely that the respondents may have different understandings on identifying risks with a particular technique.

To assess risks, most associations analyze their risks in a qualitative way. But one of the real strengths of risk management is actually to quantify the risks to better able to choose for the right risk control strategy (avoidance, retention or transfer). So associations can improve a lot in risk analysis by using relative and even better, quantitative methods to analyze risks.

At 'risk management adopters' (respondents who claimed to have introduced risk management in their organization) the risk management process is mostly part of administrative organization / internal control mechanisms or the part of the planning & control cycle. Risk management is also often a point on the agenda in consultations and horizontal and vertical communication on risks is often supported by the (line) management. These organizational provisions which are already present can provide a decent base for improving risk management on aspects as risk identification and risk analysis.

The general attitude on the effectiveness of risk control - in the way that the benefits of the risk measures weigh up against the costs of the risk measure - has a positive relation with the Risk Management Score. But the results also show that these 'benefits' are not easily translated to a perception of lesser losses or a perception of more financial continuity. Future research must make clear whether the *attitude* of respondents on the effectiveness of their risk control has a positive correlation with the actual risk control or that that risk control is just giving some 'peace of mind' by knowing to have done something against the risk.

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## **Preface**

In order to complete my master study Business Administration (track Financial Management) at the University of Twente (UT) I have carried out a graduation research at 'Nederlands Adviesbureau voor Risicomanagement' (NAR), Enschede, the Netherlands. This master thesis in front of you is the final product of this research.

The research has been a descriptive research on how risk management is filled in at housing associations in the Netherlands. I hope that it will help NAR in understanding the housing association market and how the associations can be supported to introduce and implement risk management into their organizations. I am delighted that NAR is interested to publish the results in a book or brochure about risk management at housing associations.

From April until December 2008 I have worked with pleasure on the assignment. The challenges were especially in setting up the research and the proper use of statistical methods.

I want to thank everybody who has helped me doing my research. Very special thanks go out to the members of the graduation committee who helped to guide my research in the right direction: Prof. Dr. Peter B. Boorsma (UT), Dr. Peter A.T.M. Geurts (UT) and Drs. Geert A.M. Haisma (NAR bv). I also want to thank my friends, family and last but not least, my girlfriend Lisa, for their personal support.

Enjoy reading this report!

Enschede, the Netherlands  
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Teake T. Blom



# 1 Introduction

Organizations in various industries have recognized the increasing importance of risk management. A lot of firms already have implemented risk management and have set up risk departments and assigned risk managers. Pape, Freriksen & Swagerman (2006) did a research in the Netherlands to find out what the role of risk management is in Dutch public and private organizations. The respondents were members of the Dutch Controller Instituut and the researchers found that already 38% of the respondents had an effective risk management system and that 46% said they would realize such a system in the forthcoming three years. However, these respondents are not representatives of housing associations, because a far majority of the respondents were managers or CEOs of large for profit enterprises of large public organizations. Just 43 out 283 respondents can be characterized as representatives of the Dutch public organizations, which are in some way comparable with housing associations. This is because housing associations are private organizations, but they have their main *public* goal in providing social housing. Their goal is to provide homes for people who are not able to buy a house or apartment by themselves or who are in need of special health care (e.g. persons who cannot live independent). As associations are private organizations, mostly in the legal form of foundation or union, they have in principle no intention of making a profit. Associations are in their activities bounded by governmental regulations that prevent them to explore activities in other market segments. Profits must be directly invested again in social housing facilities. These investments are according to Gruis (2000) often not profitable, because associations have legal constraints in e.g. setting the renting price. This renting price should not increase more than the price inflation of the previous year. Housing associations are therefore a special kind of private firms. In the research of Pape et al. (2006) the housing associations were not included and until today there has been no research conducted on how risk management has been filled in at these types of organizations. This is the main reason why 'Nederlands Adviesbureau voor Risicomanagement' (NAR<sup>2</sup>) asked me to conduct a research in this direction. NAR perceives the housing association market as interesting as they feel these associations can probably improve in their risk management. In this context it is therefore important to know how associations manage their risks currently. This research is therefore a descriptive research on how risk management is currently filled in at housing associations.

## 1.1 Problem Statement and Research Questions

Two types of risk are identified in risk management. Pure (or static) risks and speculative risks (Claes, 2001; NAR, 2008). Pure risks have only neutral or negative effects and speculative risks can either have positive or negative effects. Speculative risks are also called dynamic risks or business risks.

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<sup>2</sup> Dutch Bureau for Risk Management ([www.risicomanagement.nl](http://www.risicomanagement.nl))

Speculative risks (business risks) can in general not be insured, but some can be e.g. hedged by using derivatives. Along with Claes (2001) the emphasis will be on pure risks, but a proper identification and controlling of pure risks will surely help an entrepreneur to take speculative risks.

This results in the following problem statement: *To what extent do housing associations in the Netherlands know and manage their risks?*

In order to answer the problem statement, a set of research questions are set up. We want to know what techniques of *identifying* risks are used. Known techniques are e.g. interviews, brainstorming or workshops, sessions with independent experts, inspections (of e.g. physical property), desk studies, checklists, scenarios and simulations, the use of databases with data of other associations in the industry, analyzing historical losses, analyzing insurances, and internal and external audits. This results in the following research questions:

4. *What techniques do associations use to identify their risks?*

Williams et al. (1998) and Claes (2001) describe basic techniques for analyzing and judging risks. The qualitative way of analyzing risks is to give a textual description of all facets of the risks and at what circumstances it can occur and what the expected and ultimate consequences are. The great advantage of this approach is that this technique is easily applicable. Very complex risks with various ambiguous consequences can be made clear and mostly risks with a very small chance but with great consequences can be analyzed in this way.

The relative technique is very suitable to rank risks. A combination of an indication of the probability and the consequence can be applied on every identified risk. The formula mentioned in Section 2.3.1 is the base for this technique. This judgment on probability and effect can be very subjective, but with logical reasoning and the help of (external) experts this subjectivity can easily be ruled out to the extent that the judgment can be called more or less objective. The result of this technique is a ranking of risks and their potential in different classes.

The quantitative analysis goes a step further than relative analysis. With the use of statistics, calculations can be performed on individual risks to calculate what the chance is on particular effect levels. All these chance distributions can be combined in a Monte Carlo Simulation. Monte Carlo Simulations must be done by the help of computers. Thousands of iterations of the same simulation give an indication of the risks involved. It is a form of stochastic simulation. In the Netherlands Monte Carlo simulation is often used to calculate the 'impact of risks' at a certain security level (often 90% or 95%). Subsequently, the impact of the risks is compared with the 'weerstandscapaciteit'. The 'weerstandscapaciteit' is the amount of capital reserves available in the form of equity or provisions

which can be used to bear the consequences of risks. All these ways of techniques for analyzing risks leads to the following research question:

5. *What techniques do housing associations use to analyze their risks?*

After an identification and analysis of risks we want to know how housing associations actually fill in the control of risks. According to Claes (2001) this risk control involves two aspects: A physical and a psychological aspect. The physical aspect is about all the visible, material and organizational provisions which should e.g. diminish losses and damages, increase safety and health of employees, reduce claims from customers and other stakeholders, and securing property, documents and information. The psychological aspect includes awareness of employees of risks and the ultimate effects of these risks. This awareness should be combined with a sense that losses and injuries can be avoided leading to an active participation in the risk control process. According to Claes (2001) these two aspects requires a harmonious cooperation between the different levels in the organization and between all activities which are being performed. For example safety controls performed by one group can of course not have any effect in another group, if the other group is lacking to take the appropriate provisions or even obstructing the safety measures. This leads to the final research question:

6. *What organizational provisions have been made to manage risks effectively?*

## **1.2 Methodology**

The nature of the research questions was asking for a descriptive research. At first, a literature review in the field of risk management was carried out (e.g. by using Claes (2001), Pape et al. (2006), Vaughan (1997) and Williams et al. (1998)). To get a little more acquainted with the housing association sector, a desk research on the characteristics of this sector was included. Subsequently, a questionnaire for financial managers of housing associations was set up. Physical copies of the survey were sent by mail to all Dutch housing associations and a digital copy was provided on [www.risico.nl](http://www.risico.nl) (linked to [www.thesistools.com](http://www.thesistools.com)).

The resulting response (20%) was used to analyze the results in order to provide a decent picture of the use of risk management at associations. We must note that asking financial managers can give a bias in the results, as this voluntary response may have been provided by managers who have relative more interest in the subject of risk management. But it was also noted that the resulting sample was found representative to size for the whole population of housing associations.

Finally, a model was set up to be able to give each housing association a *Risk Management Score*. With this score it was possible to determine the degree of presence of risk management aspects in each association.

### **1.3 Setup of the Report**

Chapter 2 will elaborate on the concept of risk management. First is explained what is meant by a risk, secondly what risk management actually is and thirdly, what motives are present to implement risk management. Subsequently, the current practice of risk management in the Netherlands is explained. The last part of this chapter describes common risk identifying techniques as well as risk control strategies to manage the risks.

Chapter 3 is about the housing association industry. Their business activities and social function are explained. But also the legislation and governance codes which limit the associations in their activities. In the last part of the chapter an overview is given of their main risks.

In Chapter 4 we elaborate on the results of the survey and answers are given on the research questions.

The conclusion (Chapter 5) places the results discussed in Chapter 4 in a broader perspective to provide an answer to the problem statement. The conclusion also provides directions for future research.

## 2 Risk Management

In general the mission of firms is to create maximum value for their stakeholders in all their activities. Since these activities bring risks, *risk management* can help the stakeholders by the identification and treatment of these risks. According to Liebenberg & Hoyt (2003) many organizations have already implemented risk management programs, universities have developed risk management related courses and research centers, and consulting firms have set up special risk management units. The first sections elaborate on the concepts of risk and risk management followed by the motives of firms to apply risk management.

### 2.1 Definition of Risk

In order to manage risks we need to know what actually risks are. Risks are defined in various ways in literature. Claes (2001) gives an overview of different definitions of risks. All these definitions have three elements in common:

1. A probability of the occurrence of an event. The chance on the occurrence is expressed in a percentage (0% < percentage < 100%).
2. (Negative) expected effect or consequence of that event. These impacts can be variable and do not necessarily be the maximum amount of damage possible.
3. A stakeholder who gets affected by a loss or damage. There are always one or more stakeholders affected by the impact of a risk.

Another major element is that the effect of a risk has always (negative) consequences for reaching the organization's objectives (Al-Bahar & Crandall, 1990). A formula which is often used to quantify risks is (Claes, 2001):

$$\text{Risk} = \text{Probability} \times \text{Effect}$$

Where *Probability* is the chance of an undesired event and *Effect* the eventual consequence in financial terms. With the help of this formula risks can be easily categorized in more or less severe risks (a relative analysis of risks). This formula is a simple representation of much more complicated world. Because the probability can have different values in relation with different effects. The expected value of event E(R) when the event can have several distributions of probabilities and effects is:

$$E(R) = \sum p * M(p)$$

Where p is the probability of an event and M(p) the consequence in money value. In this way specific combinations of probabilities and the belonging financial consequence can be summated. In reality it is very difficult to determine these combinations precisely. Therefore the probabilities and consequences of risks are often categorized. Consequences could e.g. be categorized by amounts of

yearly revenues and chances by frequencies per 10 year (e.g. varying from a few times each year until less than one time in 5 years) (Smorenberg, 2004).

## **2.2 Definition of Risk Management**

The term *Risk Management* is a recent creation, but the actual practice of risk management is as old as civilization itself. The concept of risk management is since World War II an evolving concept in Business Economics. Claes (2001) gives an overview of definitions of risk management and he recognizes different *areas of attention* which come with a risk management process in organizations:

- Identification of risks that threaten people, material and immaterial interests and activities.
- An analysis of the probability and effect that risks can bring with them.
- A study on the methods to diminish or eliminate the risks. And based on this study, taking measures to avoid, prevent and lower losses.
- Studying risk financing to bear the potential losses. Think of bearing losses directly from current assets, specially created reserves or provisions, or by agreements and insurances.
- Regularly testing of the decided policy whether the policy is effective in the –changing- internal and external environment.

### **2.2.1 View of Standardization Organizations**

The areas of attention mentioned in are also coming back in e.g. (AIRMIC, ALARM, IRM, 2002) and (COSO, 2004). Risk management should be integrated throughout the whole organization: British standardization organizations state in (AIRMIC, ALARM, IRM, 2002, p. 2) that risk management is a central part of strategic management and that it "...should be a continuous and developing process which runs throughout the organization's strategy and implementation of that strategy". This is best explained in COSO (2004): "Every enterprise faces a myriad of risks affecting different parts of the organization, and enterprise risk management facilitates effective response to the interrelated impacts, and integrated responses to multiple risks" (COSO, 2004, p. 1). The COSO framework also sees risk management as an ongoing process to identify and control risks. Their definition of 'enterprise' risk management is: "Enterprise risk management is a process, effected by an entity's board of directors, management and other personnel, applied in strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risks to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives" (COSO, 2004, p. 2). A major factor in their definition is the organization's objectives. Events or risks should be identified which could harm these objectives and risk appetite is considered as a leading factor in the way these risks ought to be managed. COSO sees risk management also as an instrument to seize opportunities: After the listing of a full range of events (opportunities and risks), the management is capable to make the right decision (COSO, 2004).

### **2.2.2 Risk Management Policy**

As earlier mentioned, more and more organizations have started with risk management, but according to Claes (2004) there is often a lack of presence of formal (written) risk management policies. Policies on how to deal with insurances (or risk financing) and safety are very common, but that are just two aspects of risk management. Claes (2004) has noticed that the situation of not having a risk management policy brings some disadvantages for implementing risk management:

- There is an insufficient level of integrating risk measures throughout the organization. There is often a lack of coordination to control risks.
- The knowledge on particular risks is fragmented in the organization and consequences of losses are therefore not fully recognized for the whole organization.

To overcome these disadvantages a formal (written) risk management policy has to be set up (Claes, 2004). This policy must be based on a first risk identification and analysis. If the risks are identified on management level, the best risk control strategy can be chosen that is best helping to achieve the organization's goals. Therefore it is important to include in the written policy how these risks should be controlled and a plan has to be made. It is according to Claes (2004) that the line management should be responsible to validate the policy and to monitor that assigned related risk control tasks are performed by the employees or managers on lower levels. In this way a risk management helps also to stimulate internal communication on risks and their control.

### **2.2.3 Risk Management Function**

It is common practice in the USA to make use of a specially created risk management function in the organization. The risk manager (part of the risk manager function) is often responsible for (Claes, 2004; Vaughan, 1997):

- Making a start to implement risk management
- Conducting risk identifications and analysis
- Gathering theory and knowledge in the field of risk management in addition to particular knowledge available in the own organization
- Doing specific propositions on reducing certain risks (also insurable risks)
- Guarding the ability to be able to insure risks
- Doing research on losses and damages of the organization and to investigate possibilities to get satisfaction for these losses.
- Coordinating in setting up and revising of the current risk management policy
- Giving trainings in the organization to managers and employees on risk management, risk avoiding behavior or safety.

The extent that a risk manager has responsibilities in fulfilling all mentioned tasks varies from organization to organization. This depends for example on the size of the organization (Vaughan, 1997). According to Vaughan (1997) the most common responsibility for risk managers is to negotiate insurance coverage and the bigger the organization is, the more responsibility risk managers have for risk financing. The study (conducted by the Risk and Insurance Management Society) where Vaughan is referring to indicates also that loss prevention is mostly not a priority job for risk managers. The risk management function is mostly integrated in finance departments (and in lesser degree in production or personnel departments), but according to Vaughan there is “a growing school of thought (...) that says the risk manager should be in a less specialized department, reporting to an executive vice president or even the president to illustrate the companywide scope of risk management activities” (Vaughan, 1997, p. 43). From a central staff position it should be easier to take the appropriate risk measures and to guide employees in the right direction. This is according to Claes (2004) especially important for larger and more complex organizations. Another reason is that in a staff function special knowledge on risks and risk control can be developed so that risk management can be improved over time (Claes, 2004).

#### **2.2.4 Internal Communication on Risks in Current Business Processes**

According to Pape et al. (2006) it is important in risk management to communicate and report risks on to the management. For the higher management it is important to have a good insight in the risks before assessing the financial performance of a business unit or department. It also provides the higher management insight in particular issues which can play a role in some departments (Pape, Freriksen, & Swagerman, 2006). It is according to Pape et al. (2006) the easiest way to integrate reporting on risks in the planning & control cycle. A risk profile and the belonging risk measures could be easily included in the yearly plan where the executors of the plan are of course also required to report on their risk management (e.g. quarterly or per half year). In this way risk management is integrated in current business processes and communication and reporting on risks is better guaranteed (Pape, Freriksen, & Swagerman, 2006).

### **2.3 Reasons for Doing Risk Management**

The commercial triggers of insurance companies notice firms to be attentive to the impact of risks in their organization. They motivate firms to take financial measures to limit or exclude the (financial) risks. According to Claes (2001) still many firms control - certain type of - risks by using insurances. They limit risk management to the supply of the types of insurances available. Also firms tend to evaluate their risks based on their portfolio of insurances and the total amount of covered insurance. Measures to prevent losses or damages mostly only occur when it is obliged by the insurer and/or when results in a substantial discount of the insurance premium (Claes, 2001).



But managing risks is, as we have already noticed, more than having some risks insured. Insuring risks should be seen as welcome financial relief in case of damages or losses. But the loss of firm specific assets or business relations can often hardly be fully compensated, not even mentioning loss of human lives. But Shapiro & Titman (1986) argue that "...corporate cash flows are influenced by the firm's risk profile" and better risk management will give an increase in corporate cash flows leading to a higher enterprise value. 't Hart and Schnelzer (2006) state that risk management also leads to a better prediction and lower volatility of cash flows.

Another reason for implementing a systematic process of risk management is the introduction of corporate governance codes. Since 2003 Dutch firms need to address to Code Tabaksblat (Dutch corporate governance code). This code is especially for listed firms and gives guidelines to implement risk management. If a firm chooses another approach than the best practices stated in the code, an explanation in annual reports is necessary. This is different from the strict rules of the American Sarbanes-Oxley Act, which gives detailed prescriptions on how to fill in risk management. The Dutch Corporate Governance Monitoring committee wrote in 2005 that Dutch firms tend to explain a lot, but do not follow the best practices (Monitoring Commissie Corporate Governance Code, 2005). Section 3.3 explains the role of corporate governance codes at housing associations.

The fear of an increase in claims and rising insurance premiums are also a motive for implementing risk management in the USA. But, it is more common in the USA than in the Netherlands to sue people in case of losses and damages and claims are often higher (Joling, 2007; Boere, 2008). According to Joling (2007) the claim culture as we know it in the USA will not come in that proportion to the Netherlands. Reasons are according to Joling (2007) the use of juries in court and the 'no cure, no pay' policy of lawyers in the USA. Juries tend to grant higher claims than judges and a 'no cure, no pay' policy of lawyers will stimulate people and firms to claim.

## **2.4 The Practice of Risk Management in the Netherlands**

Pape et al. (2006) did a research to find out to what extent the concept and implementation of risk management has found its way at Dutch organizations. This research was conducted, as earlier mentioned, under members of the Dutch 'Controllers' Instituut'. These members are - representatives of- all kinds of private and public organizations. The researchers concluded that only 39% (11% for public organizations) have a formal risk management policy, but 63% of all organizations use a publicly available standard as e.g. COSO. It is quite remarkable to see that the frameworks are used, but that only 39% have a formal risk management policy. A risk management policy is considered as one of starting points for implementing risk management. At Dutch municipalities there is also a lack of presence of risk management policies (Boorsma, Haisma, &

Molenaar, 2006). And if they have a policy, they tend to miss the risk control measures for each risk. Or they want to increase their 'weerstandvermogen'<sup>3</sup> in the future, but they do not mention *how* they will improve this. Since Dutch municipalities fall under the 'Besluit Begroting en Verantwoording 2003'(BBV 2003)<sup>4</sup> they have an obligation to fill in risk management in a structured way, but housing associations do not have this strict call from the law.

According to Pape et al. (2006) two-third of Dutch organizations identifies and analyzes risks on an integrated basis. They evaluate and identify mostly each year (34%) or each quarter (26%). But doing risk identification and analysis in major projects is, on the other hand, quite rarely.

The most often used techniques to identify and analyze risks are checklists and questionnaires, interviews and desk studies. If there are risk identifying and analyzing systems available, respondents find them mostly very useful. The most used systems in this sense are planning & control and administrative organization / internal control systems. Organizations from different industries agree on the same level that their risk measures are sufficient to tackle the present risks from financial loss. Risk management is often included in planning & control cycles. At big organizations (revenues > 1 billion Euros) even for 89%. Most big organizations (97%) also have created a special risk manager function and at 26% of the organizations a special risk management department is created. At small and medium sized firms (revenues < 1 billion) between 30 and 40% have no special risk management function or department (Pape, Freriksen, & Swagerman, 2006). This could in fact actually be much higher, because the respondents are members of the 'Controllers Instituut' and are mostly working as register controllers or accountants at the firms they have given information on. Also by asking these members of the 'Controller Instituut' assumes that the respondents have a more than average interest in controlling and assumable risk management. Asking these members can therefore give a bias by self selection in the results.

## **2.5 Risk Identifying Techniques**

Claes (2001), Williams et al. (1998) and Al-Bahar & Crandall (1990) give an overview of techniques to identify risks in organizations and construction. A selection is made based on applicability at housing associations and presented in the following sections.

### **2.5.1 Checklists**

A firm can set up checklists to be able to list relevant (and possible) risks. This type of identification can be based on historical events, but also on risks which have not yet occurred. Setting up a checklist can cost a lot of time, but Williams et al. (1998) give some techniques in making such a

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<sup>3</sup> Relation between the amount of risks in money value and the capital capacity.

<sup>4</sup> In English: Act on Budget Accountability.

checklist. It can be done by recognizing different sources of risks. These different sources are actually risk categories. Stating these risk categories can surely help in not missing a major risk. A risk map can be seen as an example of a checklist. An example of a risk map is show below in Table 2.5.1. In the rows are the risk areas and in the columns risk categories. Risk areas are clusters of related activities where risks can occur. Depending on the nature of the organization these risk areas can of course vary.

In this example only four risk categories are mentioned, but there can be much more categories as e.g. strategic risks, image risks or risk of property damage, etc. We must note that the distinction between risk categories and risk areas are not always clear. For example the risk category of ‘process risks’ can also refer to a cluster of activities and could therefore also be a risk area. But still in practice the risk map is an often a tool (basically a checklist) to help identify relevant risks (Pape, Freriksen, & Swagerman, 2006).

*Table 2.5.1.1 Example of a Risk Map (Adapted example of a Risk Map from Haisma (2003)).*

<b>Risk Category</b>	<b>Process risks</b>	<b>Legal responsibility risks</b>	<b>Product risks</b>	<b>Environmental Risks</b>
<b>Risk Area</b>				
<b>Property management</b>				
<b>Public order</b>				
<b>Participations</b>				
<b>Treasury</b>				
...				

Another method is stakeholder analysis: In analyzing the interests of different stakeholders, the organization’s mission and goals can be identified. Subsequently, the risks that threaten these goals can be identified. This method can be very helpful to get a quick view on the main risks. In this way checklists can be set up in helping identifying risks.

Information systems can function as modern checklists. In a database the risks and the control measures of particular organizations can be stored. If more organizations are connected to this system, users of organizations in the same industry can share there risk identification. Information systems can in this way be a fast instrument to generate risk profiles of a specific organization.

**2.5.2 Financial Statements Method**

By analyzing the balance sheet, income statements and cash flow statements, property, liability and human assets exposures to risk can be identified. Combining these statements with budget plans future exposures can be identified. Every action in the organization involves either cash or assets

(Williams, Smith, & Young, 1998). These activities will therefore always be translated in revenues, costs and cash flows which of course will be coming back in (annual) financial statements.

### **2.5.3 Flow-Chart Method**

When the activities of an organization are put in flow charts, risks can, along with checklists, be identified (Williams, Smith, & Young, 1998). The items which come back in both checklists and as an activity or decision in a flow chart can easily be identified. Other variants include cause and effect diagrams and fault trees. These methods can be very helpful in making scenarios for risks that have multiple causes and effects.

### **2.5.4 Interactions with Other Departments**

Interactions with other departments surely help a risk manager identify new risks (Williams, Smith, & Young, 1998). The plans and reports of the departments should be checked for certain risks. For a risk manager it is extremely important to know what the departments are up to and therefore a risk manager should have a smooth relationship with the management of the different departments involved. Often department managers hesitate to expose their risks, but the risk manager should encourage all other managers to be open on their new risks. Therefore this horizontal communication in the form of regular and interactions (by oral or written reports) with department managers are quite essential to identify -new- risks.

### **2.5.5 Interaction with Outside Suppliers and Professional Organizations**

As with the interactions with other departments, also interactions with suppliers and other outside professional are considered important (Williams, Smith, & Young, 1998). These outsiders might have identified relevant risks you did not have noticed. Also activities of these outsiders can bring new exposures to the organization. Interaction with professional (consultant) firms and the use of published material can be another valuable source of information. For example new regulations may have been introduced or new solutions to manage specific risks may have been developed.

### **2.5.6 Contract Analysis**

As organizations have always contracts with other organizations or parties, a lot of risks come from the obligations in these contracts. Analyzing contracts can therefore really be an eye opener for particular risks. Contracts can also shift responsibilities to other organizations, but the obligations should be inventoried in order to assess risks which are not easily derived from the organization's operations.

### **2.5.7 Records of Occurred Losses**

Another common technique is to make use of an analysis of records of occurred losses and damages that have occurred over time (Claes, 2001). With an analysis of the amount and frequency of these

losses *recurring* risks can be identified with their probabilities and effects. Trends in these losses can be discovered and based on that specific risk measures can be developed and used to minimize the chance of the risks. The presence of loss records can also be used in negotiations with insurance companies to bargain for lower premiums. A technique in almost the same area is an insurance analysis. This can be conducted to know what risks are insured and if it is still necessary to have these risks insured (at such an insurance level).

#### **2.5.8 Incident Reports**

Williams et al. (1998) state that a “network of information sources can be very helpful in identifying possible losses.” Such a network should report accidents, near accidents and incidents which could have led to injuries or losses. This incident reporting should be able to help a risk manager intrinsically. This could be done by having special incident reporting forms which should (obligatory) be filled in by employees.

#### **2.5.9 Hazard Analysis**

“This approach to identifying risks is concerned with conditions that might lead to loss, although an accident has not yet occurred” (Williams, Smith, & Young, 1998, p. 76). Inspections of property in order to assess the risks often require experience of other organizations, insurers, or governmental guidelines. Two techniques help with hazard analysis. Fault tree analysis can be used what conditions should apply before the risk has come to reality. And risk chains can be used to distinguish hazards and losses in relation with the risks. In the end a risk chain can also be used to design a risk control strategy.

#### **2.5.10 Other Methods**

Other methods mentioned in Williams & Smith (1998), Al-Bahar & Crandall (1990) and Claes (2001) include interviews in the organization by management, brainstorm sessions and inspections of assets and expert sessions. Also desk studies can be used to identify different risks from knowledge bodies or from information of other firms or specialized organizations in the industry. In construction on site inspections can be a common tool for risk identification.

### **2.6 Risk Control Strategies**

In literature we find several strategies to control risks. Claes (2001) and Akintoye (1997) mention risk avoidance, risk reduction, risk transfer and risk retention. Al-Bahar & Crandall (1990) also mention ‘Insurance’ as a special category, where insurance in Claes (2001) and Akintoye (1997) is included in the category of risk transfer. The following sections will elaborate on the different strategies in order to control risks.

### 2.6.1 Risk Avoidance

A firm with a specific core business is designed and organized to bear specific risks. Construction projects always involve risks and the easiest way would be not to undertake any project in order to avoid these particular risks. But the entrepreneur will of course in that case also lose the potential profits coming from the project. Therefore, risk avoidance is often “...recognized to be impractical as it may lead to projects not going ahead...” (Akintoye & MacLeod, 1997). In accepting a project being in business the other risk controlling strategies, described below, remain.

### 2.6.2 Risk Prevention

As we have noticed earlier, a risk is defined as the probability times the effect (See Section 2.1). So, risk prevention can be done in two ways: Reducing the *probability* and/or reducing the *effect* of a risk. An example of reducing the chance of getting injured could be the installation of traffic lights on a crossing and an example of reducing the effect could be the use of seatbelts.

Risk control measures can in general easily be expressed in cash, especially in the case of a one-time risk measure. The risk measures are designed to lead to less losses, damages or injuries. These benefits are mostly much harder to quantify (Claes, 2001). It is therefore according to Claes (2001) vital for the line management to have a thorough insight in the goals and the direct costs of the measure. If a risk measure is not directly leading to savings in the short term, some of the bottlenecks may have to be overcome to implement the risk measure (Claes, 2001):

- The implementation of risk measures leads to an increase in costs and do not (seem to) bring any noticeable extra revenues.
- The risk measures can sometimes be seen as thresholds in existing business activities. If for example employees are used to fill in activities in a particular way, an extra activity (the risk measure) to reduce a risk they are not accountable for can be seen as an operating threshold.
- The result of the measures is not quantifiable and the value of the measures seems therefore zero.
- The measures are designed against events that will almost never occur and seem therefore superfluous.

Overcoming these bottlenecks is vital for a successful implementation of a risk measure and to let the measure have its effect. Risk prevention has also an indirect benefit of being able to negotiate a lower insurance premium. It is therefore essential that the management and, if available, the risk manager, will get substantial time and money to conduct research to prove the use of a risk measure (Claes, 2001).

### **2.6.3 Risk Transfer**

“Risk transfer is a risk control tool that causes some entity other than the one experiencing the loss to bear the burden of the loss” (Williams, Smith, & Young, 1998, p. 259). So, if the loss is occurring another party has become responsible for the consequences and the recovery. According to Williams et al. (1998) risk transfer can have two forms:

1. The risk is transferred by transferring property or activities. For example when assets are sold, giving the new owner the risks linked with these assets. Or a contractor can hire a subcontractor for a fixed price to take over some activities. In this last case not all risks are transferred, because the contractor is e.g. still left with the risk of default of the subcontractor.
2. The risk it selves is transferred. This can be done by any form of contractual agreement. The contracts that come with these types of transfers are called ‘exculpatory contracts’ (Williams, Smith, & Young, 1998). The transferee accepts the risk from the transferor and removes the transferor from any liability. To name an example: The transfer of risk from the retailer to the buyer in the occurrence of damage during shipping. Mostly risks are not fully transferred due to negotiation consequences or a lack of evaluating or identifying the risks to its full potential. Risk transfer can be done by provisions in contracts as hold-harmless agreements or indemnity clauses. The essential of this type of risk transfer is therefore that the eventual effect and responsibility of a risk is shared by different parties (Claes, 2001).

### **2.6.4 Insurance**

Insurance can be considered as a type of risk transfer. Insurers are specialized in taking over (insurable) risks and this is probably the most often used risk control strategy of contractors. An insurer can take over a risk when statistics on the undesired event are present (claim data). With the help of these data an insurance premium can be determined. The premium will always consist of three components: (1) The costs to cover for all process expenses done by the insurer, (2) a profit margin and (3) a risk component. The risk component must be enough to cover for all losses of the insured. The claim data of the undesired events is the basis for determining the risk component (Williams, Smith, & Young, 1998).

Often an excess insurance policy is used. This excess gives a reduction in the premium and the insurer does not have to pay out for minor losses (below the deductible amount). This excess can have various forms, but we will not elaborate here on these forms.

A special type of insuring risks can be done by a captive construction. A captive is a daughter firm with the function to bear all or some (insurable) risks of the parent (Claes, 2001). It is in fact a private

in-house insurer of the organization. The insurance premiums are paid to the captive resulting in keeping cash inside the organization. But because the captive has access to the reinsurance market, specific risks can also be reinsured. Additional costs and profit margins of regular insurers are in this way avoided. The captive can be organized as a normal insurance company which is called a ‘direct writer’, but also as a reinsurer. But in most cases a captive is a reinsurer, because there are more legal constraints (Dutch Law on Insurer Supervision) to operate as a normal insurer (Claes, 2001).

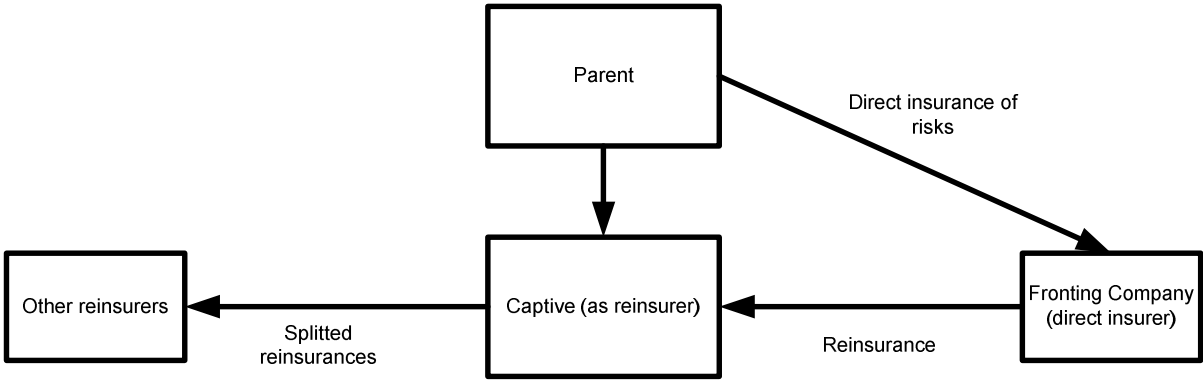


Figure 2.6.4.1 Captive construction with the captive acting as a reinsurer.

In Figure 2.6.4.1 a captive construction is shown with the captive acting as a reinsurer. To operate with such a captive, a fronting company, which acts as a direct insurer, is necessary. This fronting company is a commercial insurer. So, the parent insures the suitable risks at the fronting company, which in turn reinsures all risks to the captive. The captive can decide to bear these risks or to insure some risks again to one or more specialized reinsurers. The fronting company provides mostly also some additional services as risk evaluation and police administration. The need of a fronting company and fiscal regulations make that a captive is mostly situated off-shore. Creating a captive is according to Claes (2001) not suitable when the total amount of insurance premiums paid is below € 500,000 in the best case and € 1,000,000 in the worst case. The costs for the extra employees and the required professional management should weigh up to the benefits of having direct access to the reinsurance market. This direct access avoids the profit margins of direct insurers, but another major point of using a captive is the decrease of cash outflows which result in less interest losses.

Finally, a point concerning the aspects of insuring is that a main difference between insurance and ordinary risk transfer (as described in the previous section) is that when an risk is insured, the policyholder is compensated in financial terms, but that the responsibility of the consequences still



remains at the policyholder (Claes, 2001). The policyholder will have to take action on his own to recover from losses, injuries or damages in the form of e.g. re-buying assets<sup>5</sup>.

### **2.6.5 Risk Retention**

Risk retention is the acceptance and assumption that a risk can occur. Risk retention can be planned or unplanned. A planned risk retention is "...a conscious and deliberate assumption of recognized or identified risks" (Al-Bahar & Crandall, 1990). An unplanned risk retention is that the risk is not recognized or identified and that a potential loss is unconsciously assumed and accepted. When risk identification is conducted very poorly, the non-identified risks are unplanned retained. Another form of unplanned retention is the underestimating of the size of a risk. It can however be questionable if unplanned retention is actually an effective form of risk control. If a risk actually would have been identified and analyzed, the choice would also be present to choose for e.g. risk prevention or insurance. These alternatives could be a much better alternative than risk retention.

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<sup>5</sup> More information on captive constructions for housing associations at <http://www.aedesnet.nl/achtergrond,2005/10/Vier-vragen-over-een-eigen-verzekeringsmaatschappi.html>

### **3 Housing Associations in the Netherlands**

This chapter gives a short overview of the activities of housing associations. Subsequently we will elaborate on regulations, governance codes, and regulators that apply to housing associations. At the end of the chapter the main risks of housing associations will be discussed.

#### **3.1 History and Activities**

A housing association is a non profit organization to build, manage and let affordable housing accommodations. Housing associations are private organizations with mainly public goals. Around 1850 the first associations, mostly in legal forms of foundations or unions, in the Netherlands appeared. Associations were mostly founded by philanthropists or labor movements to provide decent housing facilities. The association funds the construction of the houses that could be rented and could after a period of time even be bought by the renters.

In 1901 the Dutch Housing Act was introduced, which allowed the Dutch government to fund these associations to provide quality homes for a reasonable rental price. The main obligations of the Act included that associations should only be active in social housing and no other markets. In this way the government prohibits that money from the government should not leak to other private organizations (Gerrichhauzen, 1985).

In the nineties of the previous century the regulations for the associations changed. The financial bond between the associations and government was cut. The present value of the yearly subsidies of the government was ruled out against the outstanding loans of the government to housing associations (Schilder, Mosch, & Hage, 2006). This 'bruteringsactie' brought financial independence for the housing associations. Because of the subsidies from the government, housing associations were first not allowed to sell their houses before repaying subsidies. But since the 'bruteringsactie', it is now easier for housing associations to sell their property (NYFER, 2003). According to NYFER (2003), housing associations can be and are since their independence more and more active in (developing) real estate. With these commercial activities, associations try to finance their unprofitable 'public' activities as providing social housing, renovation and livability in city districts.

This independence of the housing associations therefore leads to being more than ever accountable for their own bottom line (which should, because of being a non-profit firm, be zero) and therefore their business risks, since the government has stopped to (directly) subsidize the housing associations (Schilder, Mosch, & Hage, 2006).

From an international perspective the share of the associations in the housing market of the Netherlands is according to Schilder et al. (2006) quite significant. At the end of 2005 there were 492

associations, but due to mergers the number of associations fell to 474 at the end of 2006 (CFV, 2007). Since housing associations operate in the same market, these mergers are mostly interesting as they provide economies of scale and synergy (CFV, 2007). Approximately 50 out of 474 of the housing associations own nearly half of the house supply (Schilder, Mosch, & Hage, 2006).

The expectation is actually that most housing associations have not introduced risk management as it is intended to be in literature. This is based on the opinion of experts in risk management at NAR, where the housing association industry is one of their main markets.

### **3.2 Besluit Beheer Sociale Huursector (BBSH)**

The introduction of the 'Besluit Beheer Sociale Huursector'<sup>6</sup> (BBSH) in 1993 makes sure that associations continue to be active in social housing. The BBSH provides constraints in the following areas (Schilder, Mosch, & Hage, 2006):

1. On retaining financial continuity;
2. On retaining quality in providing housing for the proper target group;
3. On retaining quality of homes;
4. On involving renters in policy and decision making;
5. On improving the livability (since 1997); and
6. On providing housing for the elderly and disabled or persons who need health care or supervision (since 2001).

The description of these areas in the BBSH leaves a lot of room for interpretation, since the BBSH lacks to provide concrete criteria (Hakfoort, Leuvenstijn, & Renes, 2002). The goals in the BBSH are not operationalized. The delivered societal benefits are largely measured through their financial input and not through the actual physical output. For example it is very unclear how livability in a district can be quantified and how an association is contributing to it. The only concrete goal for a housing association is to be financial stable in the long run, but this is of course quite obvious for every firm. This financial stability is measured by the Central Housing Fund, see for that Section 3.4. The BBSH sets limits in the activities of housing associations and has therefore impact on the risks and risk management of housing associations. It is this regulation which will make sure that a housing association will always receive its revenues (mostly) from housing activities and that associations should always invest in housing and not in other unrelated projects with a possible higher net present value.

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<sup>6</sup> In English: Act for Social Renting Sector

### **3.3 Governance Codes**

Housing associations have two governance codes which provide guidelines on offering social acceptable and responsible behavior of the management and supervisory boards. As we mentioned in section 2.3 on Reasons for Risk Management, the attention for corporate governance is among firms one of the stimuli for implementing risk management. The implementation of risk management can lead to more risk consciousness behavior in organizations which in turn helps to fulfill governance rules or guidelines. Already in 2003 the Central Housing Fund (see also section 3.4) notices that risk controlling and risk management is becoming a major point of attention because of the requirements on 'good governance' (CFV, 2003). The higher expectations of and stricter rules for supervisory boards together with increasing project sizes with potential unreliable partners give more emphasis on risk management concepts to analyze and control these risks.

Housing associations are bounded by two codes, which are quite similar. The main point in relation with risk management is that housing associations are required by these codes to report on risks and risk control in their annual reports. It must, however, be noted that these codes are a product of self regulation in the industry and there is no external supervisor to check how these codes are actually applied in the industry. The codes are described in the next two sections.

#### **3.3.1 Dutch Housing Association Governance Code**

In line with the corporate governance code that applies for Dutch firms a code for the housing association industry has been formulated by the 'Commissie Governancecode Woningcorporaties' (Commissie Governancecode Woningcorporaties, 2006). The code is a typical principle based code. All the principles should be applied, but with a proper explanation, an association can ignore principles to fill it in otherwise. The code includes three principles on social responsibility and ability of stakeholders to influence the association's policy. The code treats associations as Dutch foundations, but there are also associations who have the legal form of a union with members. The union associations are expected to fulfill some organizational changes in order to apply the code. In union associations without a supervisory board, the general meeting of members is in this case considered as the supervisory board. Since 1 January 2007 this code has to be applied by the associations. In section II of the code, principles involving risk management are given. Specifically in section II.1.4 is stated that housing associations should have an internal risk management process or system present which should at least include risk analysis of operational and financial goals of the association. The management should report to and discuss with the supervisory board on the risks and risk control. The code says also that a statement on these risks and risk control should be included in the annual report.

### **3.3.2 AedesCode**

From the Association's governance code an additional code has been developed by Aedes. Aedes is the umbrella organization of the housing associations in the Netherlands. After discussions between different external and internal stakeholders of Aedes and political debates on the functioning of associations the AedesCode has been developed (Aedes, 2007). This code has also to be applied since January 2007 and consists of eight elements: societal goals, stakeholders, customers, board and supervision, sincere behavior, use of resources, accountability and reporting, and sanctions. On each of these elements good governance principles have been attached. Every stakeholder who has a "reasonable and direct interest" can complain at an independent committee of Aedes (Commissie AedesCode) if an association does not follow the code. This committee can mediate or even sanction the association.

### **3.4 Central Housing Fund (CFV)**

The 'Centraal Fonds Volkshuisvesting'<sup>7</sup> (CFV) is the governmental supervisor of the Dutch housing associations. The Fund is a public authority (in Dutch: 'zelfstandig bestuursorgaan') of the Dutch Ministry of VROM<sup>8</sup>. CFV annually evaluates the financial position of the individual associations and produces aggregated reports on the whole association industry. If an association is in financial distress, the association can turn to this body. CFV can also give subsidies for projects of associations that are directly benefiting social housing (CFVa, 2008). The official policy regulations (in Dutch: beleidsregels) of CFV formulated in (CFVb, 2008) give guidelines and restrictions to implement these activities.

### **3.5 Waarborgfonds Sociale Woningbouw (WSW)**

The 'Waarborgfonds Sociale Woningbouw' (WSW)<sup>9</sup> is an independent institution that gives financial guarantees to financiers in social housing projects. Because of these guarantees, WSW makes it possible for housing associations to borrow money at a low rate from external financiers. WSW has been awarded triple A ratings from Moody's and Standard & Poor's. In order to provide low interest rates, WSW provides a security structure with three layers in order to prevent financial distress (WSW, 2008):

1. The amount of equity and the financial position of the association should be sufficient to get a loan from financiers. If the financial position is too bad, the association can, under conditions, turn to CFV.

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<sup>7</sup> In English: Central Housing Fund

<sup>8</sup> In English: Housing, Spatial Planning and the Environment

<sup>9</sup> In English: Social Housing Construction Fund

2. The own substantial capital of WSW forms the second form of security. If an association cannot fulfill its obligations to an external financier anymore, capital from WSW can be used to compensate.
3. The government (central as well as local government) will act as a last backbone, because they can offer interest free rate loans to WSW, if WSW in turn cannot fulfill its obligations anymore.

### **3.6 Risks of Housing Associations**

In NYFER (2003) is stated that although the financial position of housing associations is quite sufficient, some significant risks are present. Scenario analyses of NYFER show that housing associations are vulnerable for changes in the housing market, especially when the preferences of house seekers for sale houses can be realized due to new supply of buy houses. This will lead to price decreases and a movement in the demand of houses. People who can afford a bigger rental house or even a buy house will leave the social housing market. The chance on a collapse of the housing market is according to NYFER very low, but they expect that in some years a lot of new houses will be delivered in so-called 'Vinex' locations which can cause some price decreases. Another related risk is a less than expected sale of houses by associations caused by the delivery of new houses (NYFER, 2003).

The long term interest rate seems, according to the risk scenario analyses of NYFER, to be of greater risk. The interest rate depends on various uncertain variables as price inflation, stock prices and investments in general. Over 40 percent of the total costs of housing associations consist of interest costs. According to Aedes an increase of 150 basis points of the 10 year fixed loan with the guarantees of WSW means a billion more interest costs for the associations (Aedes, 2008). As the interest rate is still rather low, a further increase surely belongs to the possibilities.

Further information on risks of Dutch housing associations is not found in literature. But Hargreaves Risk Management performed in 2003 a risk data sharing project with British housing associations (Hargreaves Risk Management, 2003). The most significant risks coming from the risk data sharing project which could also be applicable to Dutch housing associations are presented in Table 1. Risks related to the specific British situation are not included in this table but can be found in Appendix C.

Table 3.6.1: Most significant risk events at British housing associations. Adopted from (Hargreaves Risk Management, 2003).

Description of Risk Event	Cause
The imposition of rent control through rent restructuring places a constraint upon income streams placing downward pressure upon expenditure at a time when the greater emphasis on service and compliance raises costs.	The Government's prescriptive policy upon rent levels.
Rent restructuring	Government legislation on rent levels.
Scheme appraisal errors	Technically complex development scheme.
Scheme goes wrong — other causes	New form of contract for a complicated development scheme.
Development scheme overspend — cost inflation greater than planned.	Building costs inflation high in period, delays and financial management deficiencies
An inability to adequately support existing IT systems	System supplier no longer willing to support older generations of their systems
We found during the financial year to 31 March 2002 that maintenance costs were increasing by more than planned.	Increased labor costs, particularly in the London area
Change from Design and Build contract on a particular development scheme to traditional form of contract. This led to cost overruns.	Non-performance of a contractor
We found that staffing costs rose more quickly than expected in our residential care homes	Difficulty in recruiting staff led to increased usage of agency staff.

The first two risks concern the British government policy on rent levels. This can be compared with the Dutch situation, where also the maximum increase in the rental price of a year cannot be higher than the price inflation of the previous year. The rest of the risk events apply to planning issues and risks that could be also present in any other organization.

## **4 Research Results**

This section describes the outcome of the survey (see Appendix B for a copy of the survey) that was conducted at financial managers of all Dutch housing associations (in total 449 associations at the time of 28<sup>th</sup> of August). The survey was offered online on [www.risico.nl](http://www.risico.nl), but also physical copies were sent to all associations. Addresses and other basic information were acquired from Stichting Nationaal Register Volkshuisvestingsinstellingen<sup>10</sup> (NRV) and used to contact all the housing associations via mail and subsequently via e-mail.

The next sections describe the profile of the respondents, the use of the risk identifying and risk analyzing techniques and which organizational provisions they have made to fill in risk management. Subsequently an analysis is made in what degree the housing associations actually have implemented risk management as intended. This is done by developing and using a model for determining a Risk Management Score based on aspects of risk management present in the organization.

### **4.1 Profile of respondents**

#### **4.1.1 Response and non response**

90 of the 449 housing associations produced a valid response which has resulted in a response rate of 20%. 19 respondents filled in the physical survey and sent it back. The rest of the response came from [www.risico.nl](http://www.risico.nl) where the survey was offered online. This online server also noticed six submissions, where for unknown reason no answer was filled in at any question. It could be vandalism or more probably a mistake in the software, since it is not assumable that a respondent works through the whole survey without filling in anything and at the end presses the submit button. Of the 90 respondents, three filled in the survey twice. The last response was considered as valid.

On top of the 90 valid responses, a total of six respondents only completed the first questions of the first part of the survey or even less. This response is therefore not considered as valid. This is because this part was the introduction part, where questions were asked about basic information, but no real aspects of risk management. To do more research on the non response, we could ask these respondents why they did not fill in the survey any further. It can be expected that most non response is due to lack of interest in risk management (see also next section in the comments on Table 4.1.2.3 and voluntary response).

#### **4.1.2 Representative data**

First of all it is important to know whether the sample of respondents is representative for the whole population of housing associations. Data on the whole population was provided by NRV on the

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<sup>10</sup> In English: Dutch National Register for Housing Institutions



number of residence units and the number of employees of each housing association (See Appendix A, Table A and B). To test whether the sample can be used for valid conclusions Chi-square tests have been used. The distribution of number of employees and number of residence units of the sample was compared with these distributions in the known population. The results of these tests are shown below in Table 4.1.2.1 and 4.1.2.2.

*Table 4.1.2.1: Number of residence units*

	Observed frequency (O)	Expected frequency ( E)	
0 < 5000	57	61	
5000 < 10000	14	15	
10000 < 15000	8	4	
15000 < 20000	5	4	
> 20000	5	5	
Total	89	89	
Calculated Chi-square			4,4
Critical Chi-square (at 4 degrees of freedom and 95% confidence)			9,49

*Table 4.1.2.2: Number of employees*

	Observed frequency (O)	Expected frequency ( E)	
0 < 50	52	58	
50 < 100	16	16	
>= 100	21	15	
Total	89	89	
Calculated Chi-square			3,2
Critical Chi-square (at 2 degrees of freedom)			5,99

Nine housing associations did not give information on their number of residence units and/or number of employees, but from eight this information could be retrieved from the NRV file and this data was used instead<sup>11</sup>. The critical Chi-square is based on a confidence level of 95%. In both cases the calculated Chi-square is lower than the critical Chi-square which indicates that the sample actually represents the whole population in size measured by the number of residence units and the number of employees. So results from the survey can be generalized to all housing associations.

However, it must be noted that the results come from a survey which was filled in voluntarily. Voluntary response is often particularly prone to large bias. It can for example be expected that

<sup>11</sup> One association did not provide its name or contact information.

associations which have implemented risk management are more eager to fill in the survey, because these respondents are more interested in this subject.

*Table 4.1.2.3: Risk Management Introduction*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	79	87,8	87,8	87,8
	No	11	12,2	12,2	100,0
	Total	90	100,0	100,0	

The expectation was actually that most housing associations did not have risk management introduced (see Section 3.1), but Table 4.1.2.3 shows that 88% say they have it introduced into their organization. If in the worst case all non respondents claim not to have risk management introduced, just 18 percent of the total population would actually have introduced risk management and this is closer to our expectation. But since the sample is proven to be representative on size, this worst case scenario is far from likely and we must look for another reason. Another reason might be that respondents may have a different understanding of what is meant by risk management in this context. This could for example be the case if an association makes use of a financial forecasting software application. The respondent could feel that he makes use of an aspect of risk management and that risk management therefore is introduced in his organization.

So, in order to generalize results from the survey we should always be very careful, since the results depend on voluntary response. To overcome this particular case (saying to have risk management introduced) of assumable bias in the results, we elaborate in section 4.5 further in what degree risk management actually is present at housing associations. With the help of Chapter 2 we will assess the use of risk management aspects to come to a Risk Management Score for each housing association.

**4.1.3 Size and Introduction of Risk Management**

Table 4.1.3.1 shows that larger housing associations (measured in the number of employees) tend to have risk management more often introduced than smaller associations.

*Table 4.1.3.1: Risk Management Introduction \* Number of Employees (in cat.)*

		Number of Employees (in cat.)			Total
		< 50	50 < 100	>= 100	
Risk Management Introduction	Yes	42	15	21	78
	No	10	1	0	11
Total		52	16	21	89

And in fact logistic regression shows a significant positive relation between adoption of risk management (read: respondents who claimed to have risk management introduced) and the number of employees on an interval scale (Sig. 0,02 < 0,05). So, the higher the number of employees, the more likely it is that housing associations claim to have introduced risk management.

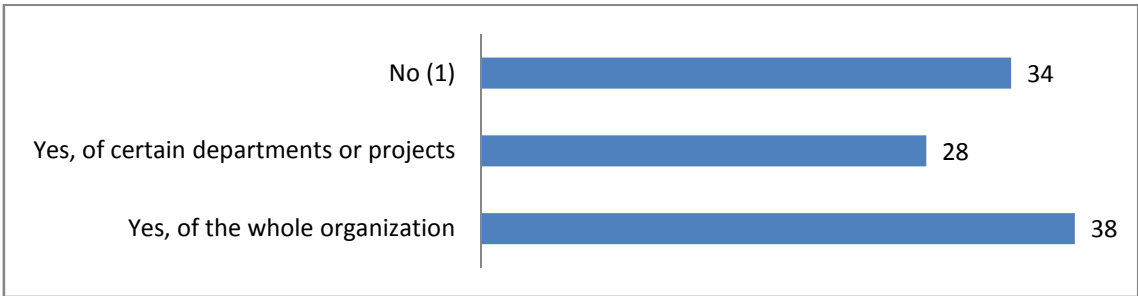
**4.2 Risk Identifying Techniques**

In this paragraph the first section describes the use of techniques used throughout the organization to identify all kinds of risks and the second section focuses specifically on how project risks are identified.

**4.2.1 Organizational Risk Identifying Techniques**

Of the associations that indicated to have risk management introduced 38 percent has a list of identified risks of the whole organization and another 28 percent indicate to have a partial risk register of particular departments or projects (See Table 4.2.1).

*Table 4.2.1.1: Availability of List with Relevant Risks at Risk Management Adopters in a Percentage (n=74)*



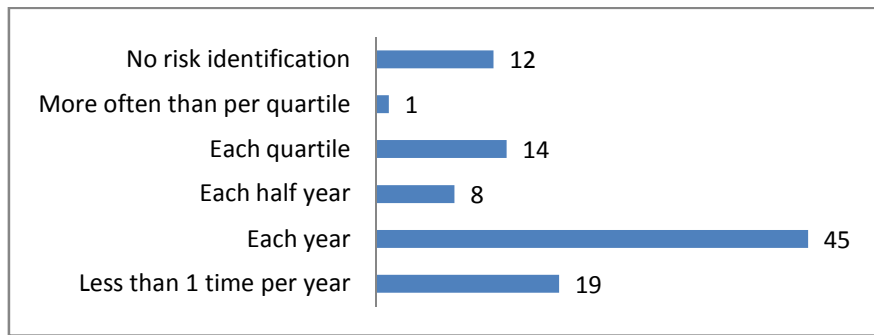
(1) 9 respondents indicated earlier in the survey to have not begun with risk identification yet: Therefore the amount of these respondents was added to the 'No' category.

(2) Total amount of risk management adopters is 79, so 5 are missing.

It is quite remarkable to see that also 34% say to have risk management introduced, but do not have a list of risks present. It is commonly known as good practice, and usually one of the first steps in risk management cycles, to have risks formally identified. Of course it could also be the case that all of these associations just started with implementing risk management. But the survey results show that this is not the case. Again an explanation could be that respondents have a rather different idea of what is meant by risk management and identification.

Of all associations that have introduced risk management we see that most often risks are identified per year (see Table 4.2.2) and that most associations just started between 1 and 3 years ago with their risk identifications.

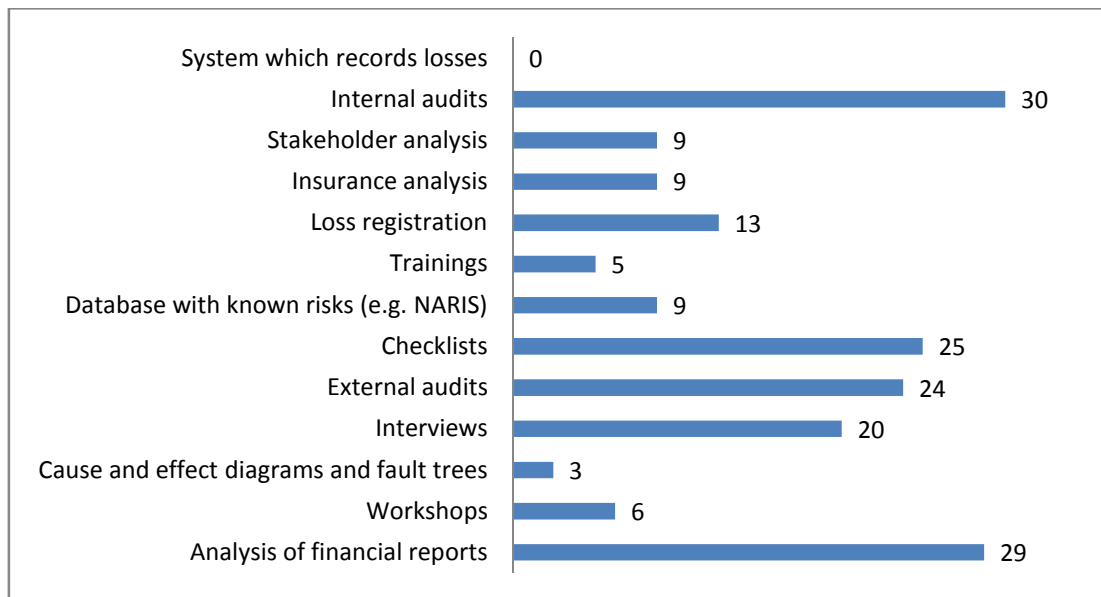
Table 4.2.1.2: Frequency of Risk Identification at Risk Management Adopters in a Percentage (n=73)



(1) Total amount of risk management adopters is 79, so 6 are missing.

Just one of the respondents who has not introduced risk management has a list with risks of the whole organization. Only one of the ten non-adopters of risk management associations indicated to analyze financial reports to identify risks, but all other non-using risk management associations do not use any risk identifying technique.

Table 4.2.1.3 Use of Risk Identifying Techniques at Adopters of Risk Management in a Percentage (n=144)<sup>(1)</sup>.

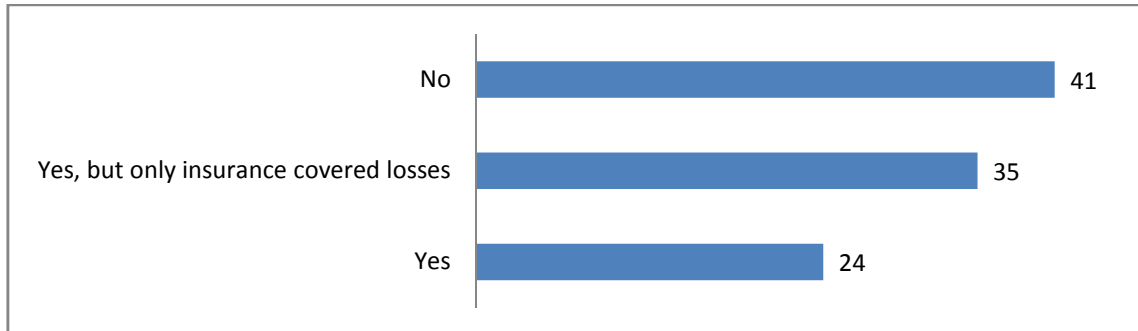


(1) Total amount of risk management adopters is 79, but the respondents could indicate the use of more techniques.

Most respondents (adopters of risk management) indicate the use of more risk identifying techniques. The frequently used risk identifying techniques at associations that actually have introduced risk management are 'Analysis of financial reports', 'Internal audits', 'External audits',

'Checklists' and 'Interviews'. The use of fault trees and cause and effect diagrams is rather rarely (Table 4.2.1.3).

Table 4.2.1.4: Loss Registration at Adopters of Risk Management in a Percentage (n=74<sup>(1)</sup>)



(1) Total amount of risk management adopters is 79, so 5 are missing.

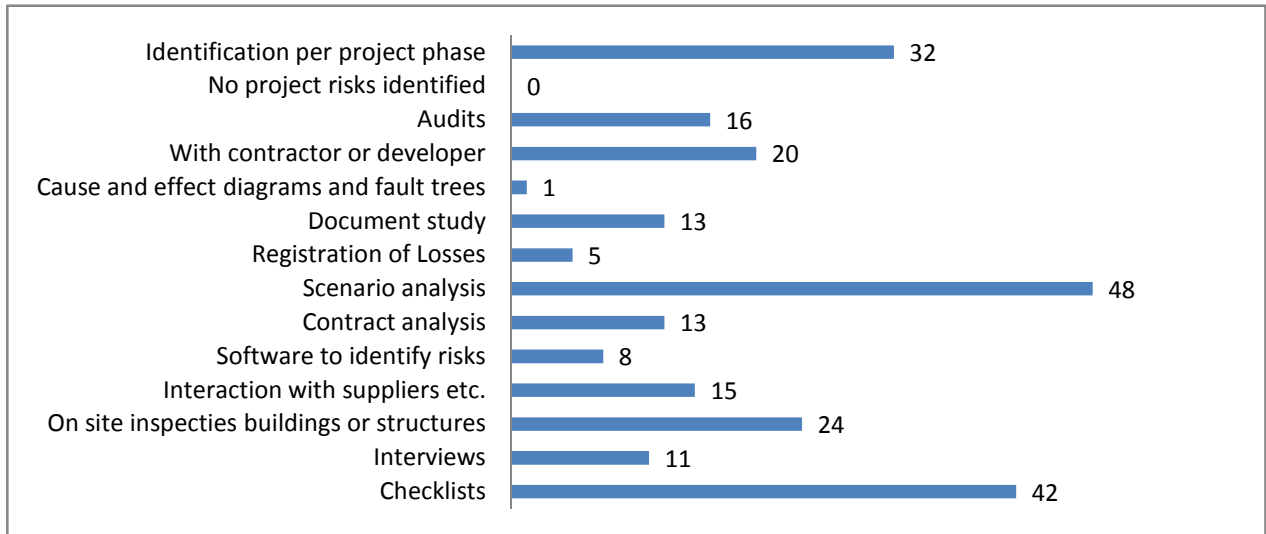
Of all associations that have risk management introduced, Table 4.2.1.4 shows that 59% have a loss registration on at least insurable losses of the last five years which could also be used to identify some risks. The identifying of risks based on 'Loss registration' is with just 13% therefore expected to be higher. If such a loss registration is present and risk management is said to present in the organization, a logical consequence is to use this registration to help identify risks.

#### 4.2.2 Project Risk Identification

To identify project risks non claimers of having risk management mainly use 'Scenario analysis' (40%), 'On site inspections of buildings and constructions' (30%) and the negotiations and talks with contractors to identify project risks (40%). All other techniques are quite less frequently used.

Risk management adopters also tend to use a lot 'Scenario analysis' (48%), but checklists too (42%) (see Table 4.2.2.1).

Table 4.2.2.1 Use of Project Risk Identifying Techniques at Risk Management Adopters in a Percentage (n=196<sup>(1)</sup>).



(1) Total amount of risk management adopters is 79, but the respondents could indicate the use of more techniques.

They also indicate to identify the risks of each project phase separately (32%). The use of 'On site inspections of buildings and constructions' (24%) and the talks and negotiations with contractors (20%) are considered less important in contrast with non risk management adapters. Associations with risk management use relatively more techniques to identify project risks than non-having risk management associations.

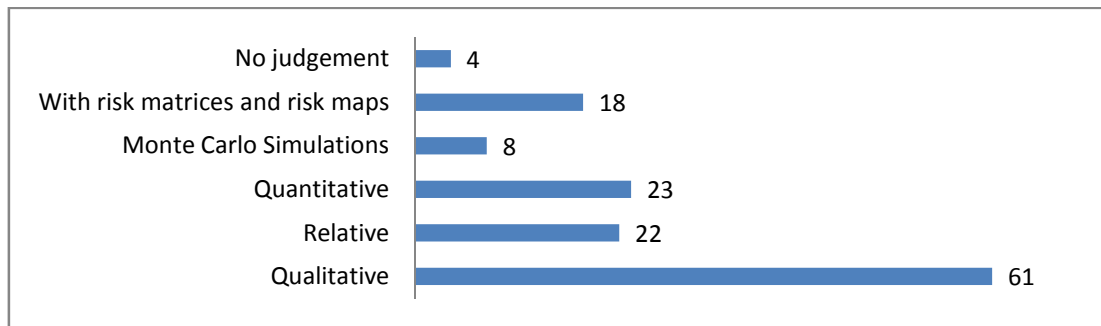
### 4.3 Assessment of Risks

The first section focuses on techniques to analyze risks, the second on for which consequences is analyzed and the last section on what software is used to support the analysis.

#### 4.3.1 Techniques

For both groups, claimers of having risk management and non claimers of having risk management, the qualitative way to analyze and judge a risk is the most frequently used technique (61% against resp. 40%).

Table 4.3.1.1 Use of Risk Analyzing Techniques at Risk Management Adopters (n=106).



(1) Total amount of risk management adopters is 79, but the respondents could indicate the use of more assessment techniques.

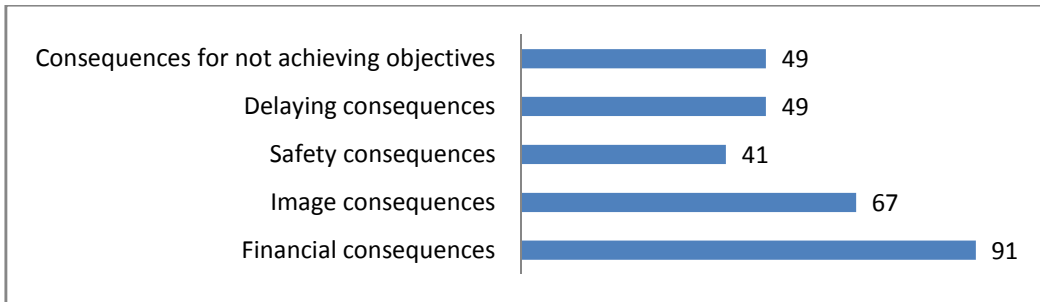
But where at non adopters of risk management the qualitative way is mostly the only way, adopters of risk management mostly prefer also other and more techniques as the relative (22%) and the quantitative technique (23%) (see Table 4.3.1.1). Also risk matrices and risk maps are used to help analyze the risks (18%). Monte Carlo simulations are compared to the other techniques relatively rarely used (8%). Along with the frequency of risk identification, risks are mostly per year analyzed (50%).

Since non adopters of risk management were not eligible to use risk identifying techniques (see section 4.2), it is remarkable to see that these respondents use a qualitative way to analyze the risks. It can be expected that in this case the qualitative way is both identifying and analyzing at the same time.

#### 4.3.2 Analyze for Different Kind of Consequences

The respondents were asked which kind of consequences they account for by analyzing risks. Of both groups (adopters and non adopters of risk management) approximately 90 percent accounts for financial consequences in their risk analysis. Overall can be seen that risk management adopters analyze for more categories of consequences. Table 4.3.2.2 shows that 'Image consequences', 'Consequences for not achieving objectives' and 'Delaying consequences' for risk management adopters are also considered important for risk management adopters.

Table 4.3.2.1: Categories of Consequences in Analysis of Risks at Risk Management Adopters in a Percentage (n=235<sup>(1)</sup>).

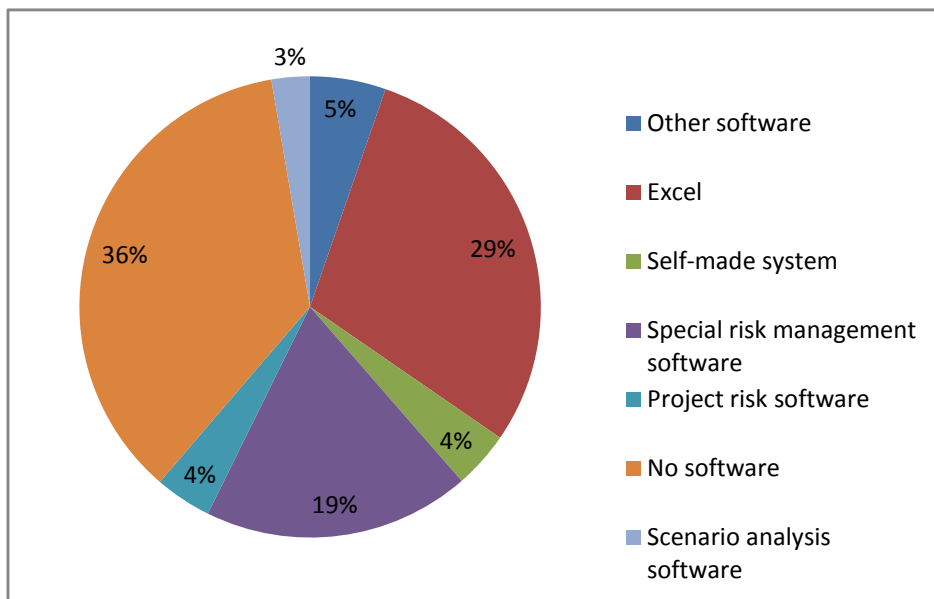


(1) Total amount of risk management adopters is 79, but the respondents could indicate more categories of consequences.

### 4.3.3 Software for Analyzing Risks

In Figure 4.3.3.1 we see that among the adopters of risk management these software applications are used: MS Excel (29%) and specially developed software for risk management (19%). 36 percent of the adopters of risk management do not use software to analyze risks.

Figure 4.3.3.1: Risk Management Adopters: The Use of Software to Analyze Risks (n=75<sup>(1)</sup>)



(1) Total amount of risk management adopters is 79, so 4 are missing.

Non adopters of risk management mostly don't use software to analyze risks. This is explainable in the sense that there are indeed no identified risks to analyze. But scenario analysis software is sometimes used to plan financial consequences. So these housing associations do not analyze specific risks, but have scenario software in place which deals and calculates with financial bandwidths.



## **4.4 Organizational Provisions**

### **4.4.1 Reasons of Housing Associations for doing Risk Management**

The main reasons to introduce risk management in the organization are (1) to be able to implement fitting risk control measures against the risks, (2) to be able to identify the risks themselves, (3) to achieve the association's goals more effectively and (4) to calculate the relation between the total amounts of risks compared to the association's capital<sup>12</sup>. Current government policies in relation with housing and housing associations (e.g. introduction of the corporation tax) and the introduction of corporate governance codes (e.g. the Aedescode) also bring, according to the respondents, more attention for risk management within the organization. This can be explained by that corporate governance codes generally make boards and supervisory boards explicitly responsible for and therefore more attentive to good governance. Risk management is seen as one of the tools to be able to offer good governance in a structural way.

### **4.4.2 Risk Management Policy**

A formal documented risk management policy can be used (perhaps vital) to support the risk management processes. But only 40% of the associations that have introduced risk management use a formal written risk management policy (40% of risk management adopters is 35% of all respondents). This is in line with results from Pape & Swagerman (2006). They stated that about 39% of all Dutch organizations have a risk management policy. But when looking in their research at public and non profit organizations category in their research we see that just 11% have a policy. So housing associations score rather high in comparison with their non profit colleagues and government institutions.

We can wonder whether risk management is really implemented when no risk management policy is set up. In that case it could be that risk management does not have a high priority at the highest levels in the organizations of associations. A risk management policy mostly gives a guiding direction and sets borders in risk management procedures. It can also make sure that risk management activities are used consistently throughout the organization. Associations which already claim to have risk management for a longer time don't have more often a documented risk management policy. The policy is mostly not validated by a finance & control department (7%), but by the supervisory board or members (48%), or the (line) management or board of directors (36%). The validation of the risk management policy should according to literature (See Section 2.2.2 on Risk Management Policy) be validated by the line management. This is because the management is according to the literature better able to control risks in an integrated way (because they have a better overview on the risks) so

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<sup>12</sup> In Dutch: weerstandsvermogen bepalen.

that the organization’s goals can be achieved in a way that is best for the whole organization. Having the management involved in validating the risk management policy will also help to stimulate internal communication by other personnel on risks and their control. This should than be managed and organized by the management.

The most mentioned goals in the written risk management policy are in line with the motives for doing risk management (see Section 4.4.1): Knowing the risks themselves (32%), to control the business processes (27%) and to achieve financial continuity (21%). According to literature (Section 2.2.2) a first identification and analysis of risks is indeed the starting point for setting up a risk management policy to be able to control this risks to eventually achieve the organization’s goal in a less riskier way.

**4.4.3 Organization of Risk Management**

As earlier mentioned, internal communication on risks and their measures organized by the management is a main point to be able to identify and analyze the organization’s risks (See Section 2.2.4 on Internal Communication on Risks in Current Business Processes). Table 4.4.3.1 shows that the use of that risk management is often part of consultations between managers and personnel and that the management shows commitment for risk management issues i.e. that employees have the support to report on risks and risk measures. Mostly commitment of the management and having ‘risk management’ on the agenda in consultations between personnel and management is combined with vertical and horizontal communication about risks throughout the organization.

*Table 4.4.3.1 Instruments to make employees aware of risks (n=77<sup>(1)</sup>)*

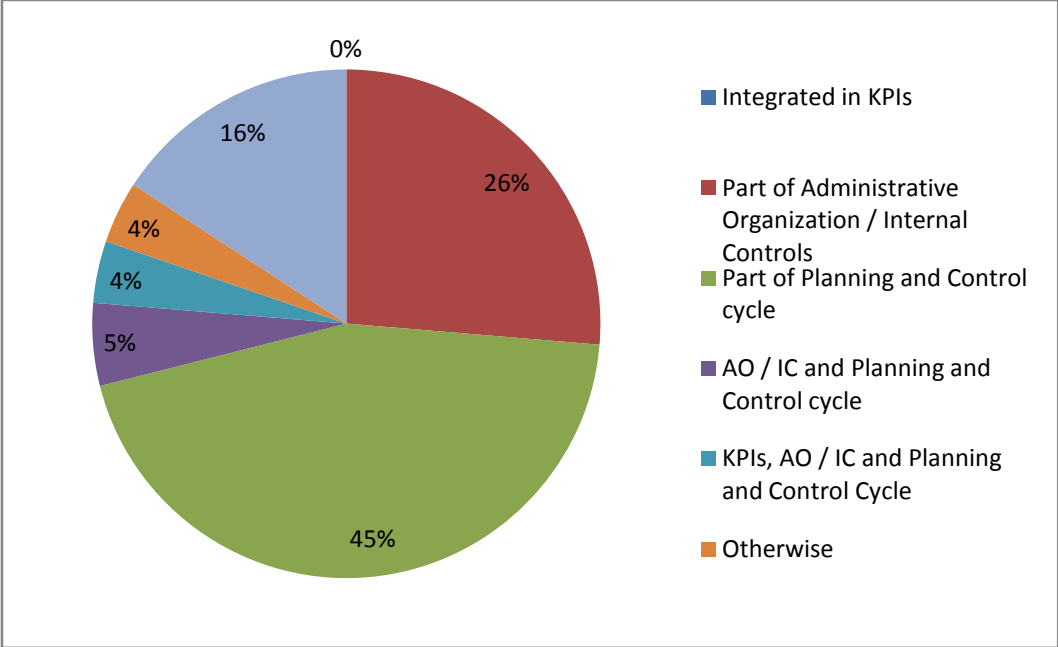


(1) Total amount of risk management adopters is 79, so 2 are missing.

The easiest way to report on risks is to have risks linked with current business processes which are already present in the organization (See also Section 2.2.4). In the survey respondents were asked whether their risk management process is linked with their current processes. The results show that

risk management is mostly part of the planning and control cycle (45%), or part of the administrative organization / internal control mechanisms (26%) (Table 4.4.3.2).

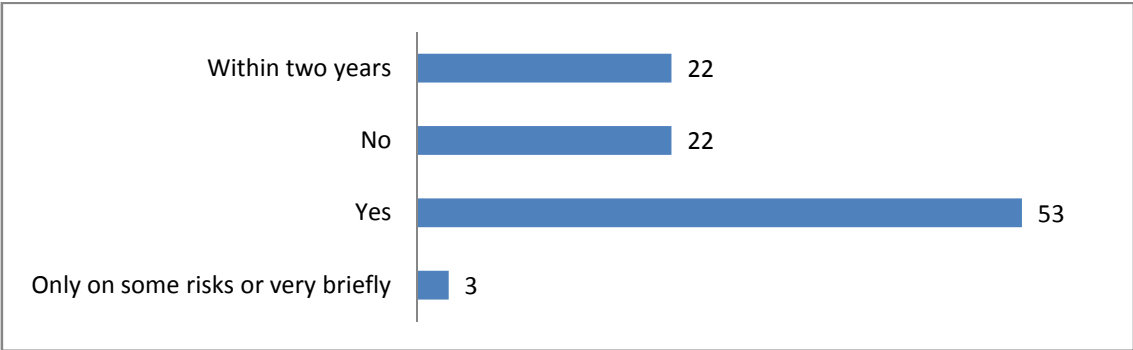
Table 4.4.3.2 Risk Management Part of Business Processes (n=76).



(1) Total amount of risk management adopters is 79, so 3 are missing.

More than half of the adopters of risk management indicate to have a risk management paragraph present in their annual reports and another 22 percent say to have included such a paragraph in the two forthcoming years (Table 4.4.3.3). 22 percent say not to have a risk management paragraph and do not indicate to have such a paragraph in the forthcoming years. This is remarkable, since it is required to have such a paragraph according to the Dutch Housing Association Governance Code (see also Section 3.3).

Table 4.4.3.3 Presence of Risk Paragraph in Annual Report (n=72<sup>(1)</sup>)



(1) Total amount of risk management adopters is 79, so 7 are missing.

Eight percent of the associations that have adopted risk management have a specially created risk management function (See Section 2.2.3), but this function is mostly not filled in by more than 1 fte. The most frequent tasks vary between 'coordinating and stimulating risk awareness' (83%), 'supporting the risk management process' and 'Help to identify risks' (both 67%). 'Training' (33%) and 'Risk analysis' (33%) is relative less frequently mentioned. The risk manager plays therefore mostly a facilitating and supporting role in the risk management process. This is also in line with the findings of Vaughan stated in Section 2.2.3. It is for example not a priority job for risk managers or coordinators to prevent losses it selves.

The board has often several tasks in filling in risk management. The main roles of the board are mostly to evaluate the identified risks (55%) and project risks (46%) and the 'stimulation of risk awareness' throughout the organization (31%). The cooperation with the employees of the risk management function is also mentioned (18%).

The heads of the departments (or line management) have most of the time also various tasks. The most frequently mentioned tasks are the execution of risk control measures and risk analysis (both 60%). In third and fourth place come the identification of risk (53%) and the task of inventing risk control measures (50%). Stimulating risk awareness throughout the organization is also rather important, where 45 percent of the respondents indicate that this is a common task for the line management.

## **4.5 Degree of Risk Management**

### **4.5.1 Model**

To determine the degree of risk management, a model has been set up with amounts of scores which can be earned by the respondents. The model is based on elements of risk identification, risk analysis and the organizational provisions which have been made to support the process of risk management. These elements determine the Risk Management Score in the model. This is also where the research has been focusing on so far. The possible risk control strategies of housing associations have not been taken into account, as they were also not specifically part in the survey (except some questions on insurance matters). But having certain elements of risk identification, risk analysis and organizational provisions in place gives an organization the possibility to structurally choose for different risk control strategies and measures. But with help of the model and the outcomes we will in section 4.5.4 further elaborate on possible relations between the respondent's attitude on the effectiveness of their risk measures and their Risk Management Score.

We must note that assigning scores is always debatable and that the score is based on voluntary response, but with the literature stated in Chapter 2 (and partly in Chapter 3) in mind, an explanation is provided on the distribution of scores and subsequently we can give an indication on the degree of risk management. The amounts of possible scores for specific risk management elements with the belonging explanation are shown below in Table 4.5.1.1. An alternative and more basic model is provided in Appendix D where scores are assigned more or less equal on the presence of a risk management aspect. Section 4.5.5 elaborates more on how weights should be assigned.

*Table 4.5.1.1 Distribution of scores on different aspects of risk management.*

<b>Risk Management Aspect</b>	<b>Score</b>	<b>Remarks</b>
<b>Organizational Provisions</b>	<b>30</b>	<b>Total possible score</b>
Presence of written risk management policy	10	The presence of a written risk management policy is an important indication of the involvement and support of the management and / or board of directors for risk management. A written policy can also help to give direction and set borders in risk management procedures.
Risk management part of business processes		Risk management is often seen as a process which could be part of other business organizational processes (Pape, Freriksen, & Swagerman, 2006). Risk Management part of AO/IC can be seen as a reasonable start, but having it part of the Planning and Control (P&C) cycle will give a higher score: The P&C cycle has often integrated the organization's objectives and in the first place risk management is also a tool to minimize the risks to achieve these objectives. Respondents were able to choose both elements, so a maximum of 15 points could be assigned.
<i>Part of Administrative Organization / Internal Controls(AO/IC)</i>	5	
<i>Part of Planning and Control Cycle</i>	10	
Presence of risk (management) paragraph in annual report	5	The presence of a risk paragraph is an indication of special professional attention for risks and risk management. A lot of frameworks (as COSO and AIRMIC) require a structured policy on risk management to fill in the risk management process. It is also a requirement stated in the Corporate governance code that applies to housing associations.
<b>Risk Identification</b>	<b>20</b>	<b>Total possible score</b>
Techniques for identifying organizational risks		The use of risk identifying techniques indicates the presence of risk identification. With three techniques it can be expected to identify most of the risks and a maximum of ten points is awarded in that case. It can not be retrieved from the conducted survey in what degree these techniques are used, but nevertheless we expect in the number of techniques familiarity with the techniques.
<i>Number of techniques = 2</i>	7	
<i>Number of techniques ≥ 3</i>	10	
Techniques identifying project risks		Use of number of techniques to identify project risks. Three different techniques are also expected to sufficient to identify most project risks.
<i>Number of techniques = 2</i>	7	
<i>Number of techniques ≥ 3</i>	10	
<b>Risk Analysis</b>	<b>25</b>	<b>Total possible score</b>

Frequency of risk evaluation and analyzing <i>Each year</i> <i>Each half year</i> <i>Each quartile or more often</i>	2 4 6	Frequent risk analyzing is an indication of the importance of this aspect of risk management. It also enables organizations to be more flexible towards changes in risks and their magnitudes and therefore the effective use of risk management.
Assessment of risks <i>Qualitative</i> <i>Relative</i> <i>Quantitative</i> <i>Monte Carlo simulations</i>	2 4 6 2	The assessment of risks can be performed in different ways; qualitative, relative and quantitative. With the relative method it is possible to rank different risks, but the quantitative method will also give more information on the (financial) impact of risks for the organization as a whole. Therefore more points are awarded for these methods in relation with the qualitative method. The use of the even more sophisticated Monte Carlo simulation method gives a bonus of two points. In the conducted survey, the respondents had the choice for more options here, so a maximum of 14 points could be assigned.
Use of software to analyze risks <i>Excel</i> <i>Self made system</i> <i>Special risk management software</i> <i>Project risk software</i>	1 4 5 2	Software can be an easy tool to be able to quantify risks and to do calculations on the amounts of capital needed to be able to cover for these risks. Excel is an often used tool, but more specific tool as a self made system and special (project) risk management software are awarded with more points. The respondent only had one option to choose, so a maximum of five points could be assigned.
<b>Total possible Risk Management Score</b>	<b>75</b>	<b>(Sum of Risk Identification, Risk Analysis and Organizational Provisions)</b>

#### 4.5.2 Basic Outcomes

The model of the previous paragraph has been applied to all respondents of the survey. The outcome of the assigned scores (categorized) is presented in Figure 4.5.2.1 below.

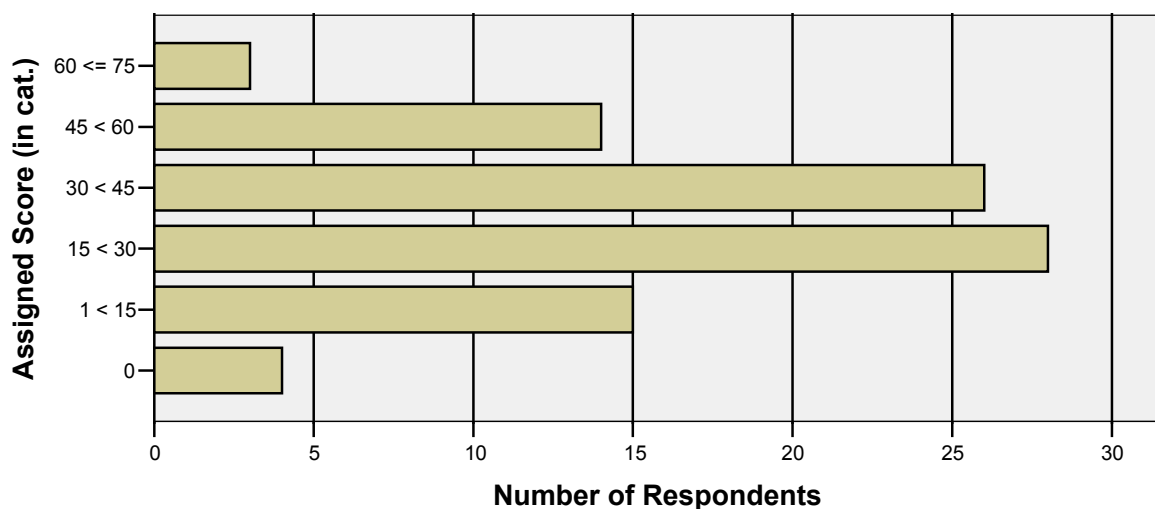
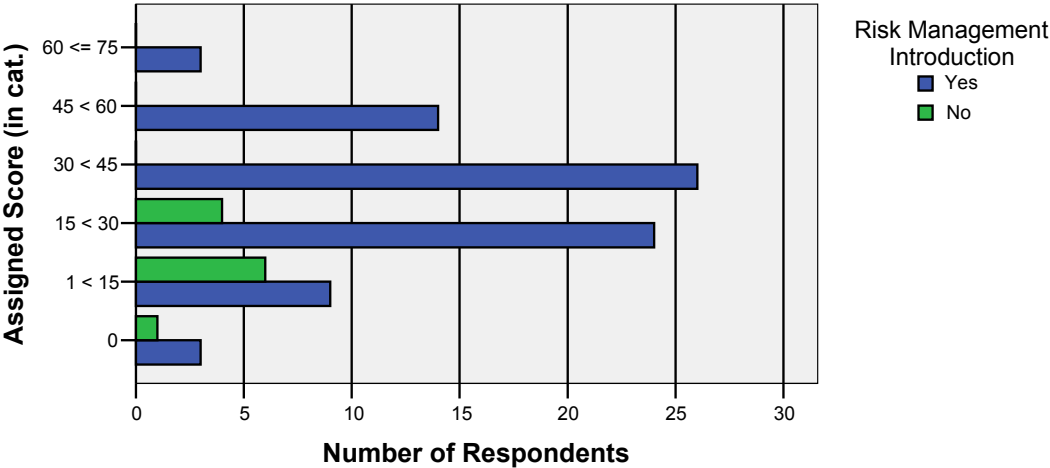


Figure 4.5.2.1 Assigned Scores for Risk Management (n=90)

Of higher interest is to split the respondents up in respondents who claimed to have risk management introduced and non adopters (see Table 4.5.2.2). As expected, non adapters of risk management score rather lower than adopters: No more than 30 points, where most associations have a score between 0 and 15. An independent samples T-test shows that the differences in the scores (interval scale) between adopters and non adopters is significant ( $0,035 < 0,05$ ). On the other hand it can be noticed that a lot of adopters also have a score between 0 and 30 and it can not be said that this group started significantly later with risk management so that they could have not yet integrated certain aspects of risk management into their organizations. It looks based on their scores that they can improve a lot in their risk management. This is line with earlier findings: For example 60% of the 'adopters' of risk management indicated not have a written risk management policy and another 45% indicated not to have a list with risks.



Table

4.5.2.2 Assigned Risk Management Score versus claiming to have risk management introduced (yes or no) (n=90).

**4.5.3 Size and score**

Figure 4.5.2.3 shows that bigger associations tend to have a higher score for risk management. And in fact linear regression shows a significant positive relationship between the sizes of housing associations (measured in the number of employees) and the assigned score (Sig. 0,012)<sup>13</sup>. An explanation could be that bigger associations have more risks and therefore have a lesser understanding of their risks than smaller associations and the need for having more risk management elements present would than probably be higher. Bigger associations could also have a higher budget for risk management. For example they can probably easier hire a risk manager to support the risk management process.

<sup>13</sup> Risk Management Score = 25,748 + 0,03 \*Number of Employees

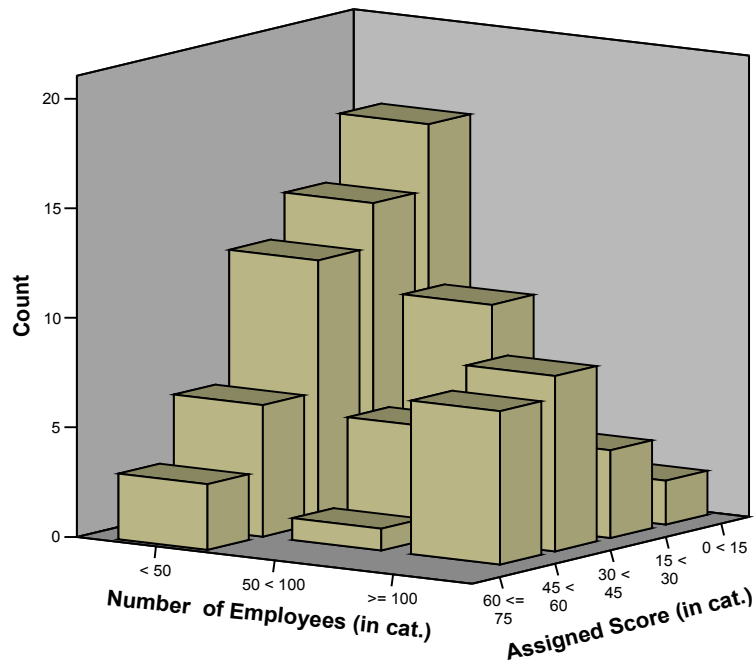


Figure 4.5.2.3 Number of employees and assigned score (in categories) (n=90)

#### 4.5.4 Attitude on Risk Control and Actual Behavior

In the survey statements were given on the effectiveness of risk control measures where respondents could indicate the degree on how they agree or do not agree with these statements. These statements asked respondents in a five-point scale on their attitude on the effectiveness of their risk measures. These statements are:

1. The benefits of risk control measures weigh up against the risk measure's costs;
2. The risk measures improve financial continuity; and
3. The risk measures lead to lesser damages and losses.

It is of interest to see whether we can say that positive attitude towards their risk measures also results in a high risk management score. It can be expected if an association has a high Risk Management Score they also would have a positive attitude towards the effectiveness of their risk measures. And actually the results show a positive and significant relation between the attitude towards statement 1 and the risk management score (Sig. 0,009 < 0,05)<sup>14</sup>. So the perceived benefits of risk measures weigh in general better up against the perceived risk measure's cost at associations with a higher Risk Management Score. But a more positive attitude towards statements two and three do not result in a higher score for risk management<sup>15</sup>. So the 'benefits' of the risk control

<sup>14</sup> Risk Management Score = 4,188 + 7,088\*(Attitude on Statement 1 {(0=Completely disagree),...,(4=Completely agree)})

<sup>15</sup> Respondents who indicated not to have an opinion on these three statements were not included in the analysis of these three statements.



measures stated in statement 1 can not be easily translated to more financial stability (statement 2) and a decrease of losses (statement 3). Perhaps these 'benefits of risk control' lie then in a certain 'peace of mind' of the respondents: Implementing a risk measure can give a satisfying feeling in having actually something done against the risk, but the respondent are not quite sure of the effectiveness of the measure.

So, according to the attitude on statement 2 and 3, respondents with a low risk management score can still have a positive feeling towards their risk measures' effect or the other way around. A reason could be that the attitudes of the respondents towards their risk measures do not have a correlation with the actual effectiveness of their risk measures. The respondents could have a poor understanding of the actual effectiveness of their risk measures.

It is therefore of interest for future research to see whether the concept of risk management really contributes to an improvement in controlling the risks leading to more financial stability and a decrease of losses and damages. Because the perception of the respondents towards the effectiveness of their risk control seems not to be in this direction.

#### **4.5.5 Discussion on the Model of Assigning a Risk Management Score**

To give a starting point in the discussion on how the scores and weights should be assigned in a Risk Management Score model, in Appendix D an alternative model has been set up. This model assigns more or less equal weights to every risk management aspect. The results show that in this model it is easier for an association to score in the higher categories. Table 3 of Appendix D also shows that even associations which *claim not to have risk management introduced* are also better represented in the higher categories than in the original model. It is therefore assumable that the original model, proposed earlier, is a better representation of reality than the alternative model of Appendix D.

If we look at the distribution of the scores, the original model seems also better in making better relative comparisons between housing associations, because it is more difficult to score more extreme values. For example a score in the highest category has more meaning than a high score in the alternative model, because extreme values are less present in the original model (because these scores are harder to get).

It is outside the scope of this research to discuss in detail how weights should be assigned, but for future research it could be interesting to assess risk management with such a Risk Management Score model at housing associations or other types of organizations.

## **5 Conclusion**

The problem statement was about knowing how Dutch housing associations know and manage their risks. In order to be able to give an answer on this problem statement we focused on the techniques that housing associations use to identify and analyze risks and which organizational provisions have been made to support their management of risks. To answer the research question a survey has been conducted and the results of this survey are described in Chapter 4. Subsequently, to determine in what extent risk management is present at housing associations a model has been set up to determine the degree of risk management which is expressed in a Risk Management Score for each housing association.

### **5.1 Different Understanding of Risk Management**

Before going to the main findings of the research, a point to be made is the different understanding of the concept of risk management of respondents. Almost 9 out of 10 respondents indicated to have 'risk management' introduced in their organizations. This is much higher than the expectation stated in Section 3.1. This could be because of self selection in the sample of housing associations, but the sample was proven to be representative for the whole population and self selection is therefore not very likely a reason for this high amount of 'risk management adopters'. What rests is that respondents most likely have a different understanding of risk management compared to what is actually meant by it in literature. A recommendation for future research would therefore be to ask respondents what their notion is of risk management.

### **5.2 Presence of Basic Risk Management Elements**

With the previous point in mind, we notice that just 34% of the risk management adopters (associations that claim to have risk management introduced) have a list with relevant risks of their organization. But it is often one of the first steps in risk management cycles to identify risks and to formally create a list of relevant organizational risks. A positive thing is that almost 60% say they have loss registration for at least insurable losses, but we also notice that this loss registration is rarely used (13%) to identify the risks linked with these losses or damages.

Another basic part of risk management is to set up a formal risk management policy to give guidelines in how risk management should be implemented into the organization. A formally written risk management policy is an indication of sufficient support from the management and board of directors for really pursuing successful risk management. Having a policy is therefore also one of the (first) aspects in the different frameworks of COSO and AIRMIC. The results show however that just 40% of 'risk management adopters' have a formal written risk management policy.

The missing of fundamental aspects of risk management at some housing associations who claim to have risk management introduced is also coming back in their Risk Management Scores. The results from the model therefore also show that a substantial part of these 'adopters' score rather low and could therefore improve a lot. But it must also be noticed that 17 of 79 the risk management 'adopters' scored between 45 and 75 points, and the highest scorers can surely be an example for the other associations in the way how to implement risk management. We notice that most housing associations just started (mostly since a few years) with risk management partly caused by the growing emphasis on corporate governance in this industry. To fulfill the requirements on good governance (Aedescode), risk management can be a tool to structurally provide supervisory boards and managers information on their risks and the control of these risks. It can make the supervisory board attentive to their tasks and responsibilities. The results of this survey show that risk management is often not filled in at these organizations in the way it should be done according to literature. A reason could be that the corporate governance codes applying to associations do not give strict guidelines *how to fill in 'good governance'* and that risk management is not perceived to be fully necessary. Another reason may be that the Aedescode is considered as more or less as a piece of paper, since the code is a product of self regulation of the industry and there is no real maintaining of this code by any external or independent body outside the industry.

### **5.3 Risk Identification and Analysis**

Results show that respondents indicated to use a lot of 'internal audits' and 'analysis of financial reports' to identify risks. In identifying project risks 'scenario analysis' is a common tool. It is again very likely that the respondents may have different understandings on identifying risks with a particular technique. For example scenario analysis may mean to one respondent to set up a decent planning and thorough agreements with (the help of) contractors, where another respondent may perceive scenario analysis as using financial planning or scenario software. Future research on the precise use of techniques seems to be necessary to overcome this problem.

The risks are mostly analyzed in a qualitative way and in a much lower degree in a relative or quantitative way. One of the real strengths of risk management is actually to quantify the risks to better able be to choose for the right risk control strategy (avoidance, retention or transfer). So associations can also improve a lot in their way of analyzing risks. The advantage of quantifying risks is also to be able to better compare the amount of risk in money value with the actual presence of capital to overcome these risks. A qualitative way of analyzing risks is considered only to be effective for risks with e.g. a very low probability and a very high impact and when the causes and effects of the risks are very ambiguous.

#### **5.4 Organizational Provisions**

Although we already mentioned that a formal written risk management policy is often not present, we see that at 'risk management adopters' the risk management process is mostly part of administrative organization / internal control or part of the planning & control cycle. Risk management is also often a point on the agenda in consultations and horizontal and vertical communication on risks is often supported by the (line) management. These organizational provisions which are already present can provide a decent base for improving risk management on aspects as risk identification and risk analysis. These aspects can probably be done a lot more in a structural way, also in the back of the mind knowing that just 22% indicate to have a risk management paragraph in their annual reports.

#### **5.5 Attitude on Risk Control and Risk Management Score**

The results show that the general attitude on the effectiveness of risk control - in the way that the benefits of the risk measures weigh up against the costs of the risk measure - has a positive relation with the Risk Management Score. But the results also show that these 'benefits' can not be easily translated to a perception of lesser losses or a perception of more financial continuity. Perhaps these 'benefits of risk control' lie then in a certain 'peace of mind' of the respondents: Implementing a risk measure can give a satisfying feeling in having actually something done against the risk, but the respondent are not quite sure of the effectiveness of the measure. Future research must make clear whether the *attitude* of respondents on the effectiveness of their risk measures has a positive correlation with the actual risk control.

Another aspect for future research is to improve the Risk Management Score model. With for example the previous remarks on how risk identification techniques are precisely used the model can be refined: Risk management aspects can be included in more detail and more indicators for risk management can be included. An improvement could be to include a measurement on how risk management is integrated throughout the whole organization. In the current model there is no real indicator for this. By knowing that the survey results are coming from financial department managers, the risk management aspects mentioned in the model may be mostly present at the finance and control departments and not throughout the whole organization.

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## Appendix A Tables

**Table A: All Dutch Housing associations divided in classes of residence units to be managed (source: Stichting Nationaal Register Volkshuisvestingsinstellingen (NRV))**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0 < 5000	307	68,4	68,4	68,4
	5000 < 10000	75	16,7	16,7	85,1
	10000 < 15000	20	4,5	4,5	89,5
	15000 < 20000	22	4,9	4,9	94,4
	> 20000	25	5,6	5,6	100,0
	Total	449	100,0	100,0	

**Table B: All Dutch Housing associations vs. number of employees (source: NRV)**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0 < 50	294	65,5	65,5	65,5
	50 < 100	80	17,8	17,8	83,3
	> 100	75	16,7	16,7	100,0
	Total	449	100,0	100,0	





# Enquête 'Risicomanagement bij Woningcorporaties'

## Welkom!

Welkom bij de schriftelijke versie van de enquête over risicomanagement bij woningcorporaties. U kunt trouwens de enquête ook online invullen. De link vindt u in de brief.

Het doel van de enquête is om een beeld te krijgen van het risicomanagement binnen corporaties. De enquête bestaat uit zes delen: Vragen over een voorbeeld van een mogelijk groot risico voor woningcorporaties, risicobeleid en organisatie, risico-identificatie, risicoanalyse, risicobeheersing en algemene kenmerken van de corporatie.

Het invullen van de enquête duurt ongeveer 10 minuten. Veel plezier met het invullen.

1. Naam respondent: \_\_\_\_\_
2. Functie: \_\_\_\_\_
3. Juridische vorm woningcorporatie:
  - Stichting
  - Vereniging
  - Anders, nl.: \_\_\_\_\_

## 1. CASUS

### 'Economische terugval in 2009'

*Het Centraal Planbureau (CPB) voorziet volgend jaar een economische terugval. Voor 2009 raamt het CPB de groei op een kleine 1,25 procent. Dit jaar bedraagt de economische groei 2,25 procent.*

De economische terugval gaat gepaard met een oplopende inflatie tot 2,75 procent in 2008 en 3,5 procent in 2009. Daarbij verwacht het CPB dat de lange rente oploopt naar 4,5 procent. Voor corporaties is de rente voor tienjaars fixe leningen onder garantie van het WSW inmiddels met ruim 150 basispunten opgelopen sinds het laagste punt op 9 januari 2006. Op termijn betekent een dergelijke rentesprong dat de corporaties jaarlijks een miljard euro meer rente gaan betalen.

*Bron: Aedes-magazine, nummer 13-14, 2008*

Het bericht laat zien dat een van de grootste risico's voor corporaties een rentestijging is. In de volgende vragen wordt ingegaan op de analyse en de beheersing van dit risico.

4. Stelling	Helemaal mee eens				Helemaal niet mee eens	Geen mening
De stijging van de rente voor tienjaars fixe leningen onder garantie van het WSW is voor het jaar 2009 één van de grootste risico's voor mijn woningcorporatie.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. Worden er binnen uw woningcorporatie analyses gemaakt van eventuele financiële gevolgen van een rentestijging?

- Ja
- Nee

6. Welke maatregelen zijn getroffen om eventueel hogere interestkosten op te vangen?


7. Voor corporaties geldt het verplichte inflatievolgend huurbeleid. Is binnen uw woningcorporatie een analyse gemaakt van de financiële gevolgen wanneer de inflatie anders uitvalt dan verwacht?

- Ja
- Nee

8. Stellingen:	Helemaal mee eens				Helemaal niet mee eens	Geen mening
A. Het huidige beleid (bijv. de Vogelaarheffing of het inflatievolgend huurbeleid) van de landelijke overheid zorgt voor extra aandacht bij de woningcorporatie voor risicomanagement.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B. De corporate governance codes (bijv. Aedescode) zorgen voor extra aandacht voor risicomanagement binnen de woningcorporatie.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

9. Is of wordt risicomanagement in de woningcorporatie ingevoerd?

- Ja
- Nee (ga verder naar vraag 25)

## 2. RISICOBELEID EN ORGANISATIE

10. Is uw woningcorporatie afgelopen jaren betrokken geweest bij een daadwerkelijke fusie?

- Nee
- Ja, in welk jaar: \_\_\_\_\_

11. In welk jaartal is begonnen met het invoeren van risicomanagement? \_\_\_\_\_

12. Was voor de eventuele fusie al bij een van de (andere) fusiepartners risicomanagement ingevoerd?

- Ja
- Nee
- Onbekend

13. Wat is de aanleiding voor het invoeren van risicomanagement (geweest)?

<i>Aanleidingen</i>	Meest belangrijk								Minst belangrijk	Geen reden
A. Kostenreductie	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B. Vanwege Governancecode Woningcorporaties	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C. Vanwege Aedescode	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D. Vanwege bepalingen van CFV of WSW	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E. Vanwege een indeling in de C of D categorie van het CFV	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
F. Voor het berekenen van het weerstandsvermogen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
G. Om risico's te identificeren	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Zie volgende pagina voor  
het vervolg van de vraag.

H. Om passende beheersmaatregelen te kunnen treffen voor de risico's	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I. Vanwege nieuwe beleidsmaatregelen van de landelijke overheid voor corporaties	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
J. Om de bedrijfsdoelen effectiever te bereiken	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

14. Is er nog een andere aanleiding waarom u risicomanagement invoert of hebt ingevoerd?


15. Heeft uw corporatie een formeel op schrift gesteld risicomanagementbeleid?

- Ja
- Nee (ga verder naar vraag 18)

16. Door wie is het beleid bekrachtigd?

- Door de financiën & control afdeling
- Door het lijnmanagement of directie
- Door RvT of RvC of de ledenvergadering

Anders: \_\_\_\_\_

17. Zijn er doelen opgesteld in het risicomanagementbeleid en zo ja, welke doelen? (meer antwoorden mogelijk)

- |   |   |
|---|---|
| <input type="checkbox"/> Continuïteit van de dienstverlening                                | <input type="checkbox"/> Inzicht in risico's        |
| <input type="checkbox"/> Risicobewustzijn vergroten en stimuleren                           | <input type="checkbox"/> Beheersen processen        |
| <input type="checkbox"/> Weerstandscapaciteit berekenen                                     | <input type="checkbox"/> Voldoen aan AedesCode      |
| <input type="checkbox"/> Voldoen aan Governancecode<br>woningcorporaties                    | <input type="checkbox"/> Optimaliseren risicokosten |
| <input type="checkbox"/> Bevorderen vertrouwen in de organisatie<br>zowel intern als extern | <input type="checkbox"/> Verhogen van de veiligheid |
| <input type="checkbox"/> Bewerkstelligen van de financiële<br>continuïteit                  | <input type="checkbox"/> Geen doelen opgesteld      |
| <input type="checkbox"/> Anders:  |   |
- 
- 

18. Is risicomanagement onderdeel van andere bedrijfsprocessen? (meer antwoorden mogelijk)

- Verwerkt in Key Performance Indicators (KPI's)
- Onderdeel van AO/IC
- Onderdeel van planning & control cyclus
- Niet
  
- Anders: \_\_\_\_\_

19. Worden er binnen de woningcorporaties instrumenten gebruikt om medewerkers bewust te maken van risico's?

- Trainingen
- Risicomanagement is onderdeel van werkoverleggen
- Periodieke interviews onder werknemers
- Risicomanagement is vaak onderdeel van vergaderingen
- Het lijnmanagement draagt commitment uit voor risicomanagement
- Verticale en horizontale communicatie over risico's

20. Is er een speciale functie voor risicomanagement?

- Nee (ga verder naar vraag 22)
- Ja, hoeveel fte? \_\_\_\_\_

21. Wat zijn de taken van deze functionaris(sen)? (meer antwoorden mogelijk)

- |  |  |
|--|--|
| <input type="checkbox"/> Helpen bij risico-identificatie                               | <input type="checkbox"/> Risico's evalueren  |
| <input type="checkbox"/> Risico's analyseren   | <input type="checkbox"/> Zorgen voor begeleiding in het<br>risicomanagement proces       |
| <input type="checkbox"/> Bij nieuwe projecten risico's<br>identificeren en analyseren. | <input type="checkbox"/> Rapporteren van schades   |
| <input type="checkbox"/> Coördineren en stimuleren van<br>risicobewustzijn.            | <input type="checkbox"/> Opleiden van medewerkers op het gebied<br>van risicomanagement. |

22. Wat zijn de taken van het dagelijks bestuur in het geheel van risicomanagement? (meer antwoorden mogelijk)

- Het bestuur bemoeit zich niet direct met de invulling maar laat dat over aan afdelingshoofden.
- Het proces van risicomanagement wordt in samenwerking met risicofunctionaris(sen) aangestuurd
- Stimuleren van risicobewustzijn van medewerkers
- Evalueren van organisatiebrede risico's
- Evalueren van projectrisico's
- Geen taken

23. Wat zijn de taken van de afdelingshoofden in het geheel van risicomanagement? (meer antwoorden mogelijk)

- Vergaderingen beleggen met risicomanagement op de agenda
  - Opstellen van risicomanagement beleid
  - Beheersmaatregelen uitvoeren
  - Risicoanalyse
  - Anders:
- 
- 
- Stimuleren van risicobewustzijn van medewerkers
  - Beheersmaatregelen bedenken
  - Risico-identificatie
  - Geen extra taken

24. Wat zijn de taken van de overige medewerkers in het geheel van risicomanagement? (meer antwoorden mogelijk)

- Risico's identificeren en rapporteren aan afdelingshoofd of management
- Elkaar aanspreken op risicobewust gedrag
- Geen extra taken

### 3. RISICO-IDENTIFICATIE

25. Wanneer is uw woningcorporatie begonnen met het uitvoeren van risico-inventarisaties?

- Langer dan 10 jaar geleden
- Tussen 3 en 5 jaar geleden
- Minder dan 1 jaar geleden
- Niet van plan (verder naar vraag 30)
- Tussen 5 en 10 jaar geleden
- Tussen 1 en 3 jaar geleden
- Nog niet (verder naar vraag 30)

26. Hoeveel keer per jaar worden de risico's van uw bedrijf integraal (door de gehele organisatie) geïdentificeerd?

- Minder dan 1 keer per jaar
- Per jaar
- Per halfjaar
- Per kwartaal
- Vaker dan een keer per kwartaal

27. Bestaat er in binnen een organisaties een lijst of register met relevante risico's?

- Ja, organisatiebreed
- Ja, van bepaalde afdelingen of projecten
- Nee (verder naar vraag 30)

28. Welke functionaris(sen) zorg(en)(t) voor het bijhouden van deze lijst van risico's? (meer antwoorden mogelijk)

- Lijnmanagement
- Medewerkers
- Hoofd of medewerkers van de financiën en control afdeling
- Risicomanagement functionaris(sen)

29. Welke technieken worden er binnen uw corporatie gebruikt voor het identificeren van risico's? (meer antwoorden mogelijk)

- |  |   |
|--|---|
| <input type="checkbox"/> Analyse van financiële (jaar)rapporten  | <input type="checkbox"/> Trainingen   |
| <input type="checkbox"/> Workshops   | <input type="checkbox"/> Op basis van een registratie van een schadehistorie    |
| <input type="checkbox"/> Door middel van foutenbomen of oorzaak-gevolg diagrammen, gebeurtenissenbomen of invloedsdiagrammen | <input type="checkbox"/> Verzekeringenanalyse                                   |
| <input type="checkbox"/> Interviews met betrokkenen  | <input type="checkbox"/> Stakeholderanalyse                                     |
| <input type="checkbox"/> Externe audits  | <input type="checkbox"/> Interne Audits   |
| <input type="checkbox"/> Checklists  | <input type="checkbox"/> Schadesysteem  |
| <input type="checkbox"/> Een database met bekende risico's van de branche, zoals bijv. NARIS                                 | <input type="checkbox"/> Geen technieken, risico's worden niet geïdentificeerd. |
| <input type="checkbox"/> Anders:   |   |

---

---

30. Vinden er voor projecten speciale risico-inventarisaties plaats?

- Ja
  - Nee (verder naar vraag 32)
  - Ja, maar hoofdzakelijk voor nieuwbouwprojecten
  - Ja, voor speciale projecten nl.:
- 
- 

31. Op welke manieren worden *projectrisico's* geïdentificeerd? (meer antwoorden mogelijk)

- |   |   |
|---|---|
| <input type="checkbox"/> Checklists   | <input type="checkbox"/> Interviews binnen de organisatie   |
| <input type="checkbox"/> Inspecties van gebouwen en andere opstallen                      | <input type="checkbox"/> Door interactie met leveranciers en professionele organisaties                                     |
| <input type="checkbox"/> Software voor risico identificatie (en eventueel kwantificering) | <input type="checkbox"/> Contract analyse   |
| <input type="checkbox"/> Scenarioanalyse  | <input type="checkbox"/> Schadehistorie   |
| <input type="checkbox"/> Documentstudie   | <input type="checkbox"/> Door middel van foutenbomen of oorzaakgevolg-diagrammen, gebeurtenissenbomen of invloedsdiagrammen |
| <input type="checkbox"/> Met aannemer of projectontwikkelaar                              | <input type="checkbox"/> Audits   |
| <input type="checkbox"/> Er worden geen risico's geïdentificeerd                          | <input type="checkbox"/> Identificatie per projectfase  |
- Anders:
- 
- 

32. Is van de laatste vijf jaar een schaderegistratie bijgehouden?

- Ja
- Ja, maar alleen van schades die gedekt zijn door verzekeringen
- Nee

33. Bent u van plan om blijvend een registratie van een schadehistorie te gaan bijhouden?

- Ja
- Nee



## 4. RISICOANALYSE

34. Hoeveel keer per jaar worden de risico's van uw corporatie geanalyseerd (na identificatie van de risico's)?

- Minder dan 1 keer per jaar
- Per jaar
- Per halfjaar
- Per kwartaal
- Vaker

35. Hoe worden de geïnventariseerde risico's beoordeeld?

- |  |  |
|--|--|
| <input type="checkbox"/> Kwalitatief (beschrijvend)  | <input type="checkbox"/> Relatief (gerangschikt, bijv.; groot tot klein) |
| <input type="checkbox"/> Kwantitatief per risico (concrete getallen, bijv. kans als % of schade in euro's) | <input type="checkbox"/> Monte Carlo Simulaties                          |
| <input type="checkbox"/> Met behulp van risicokaarten / risicomatrices                                     | <input type="checkbox"/> Niet  |
| <input type="checkbox"/> Anders:   |  |
- 
- 

36. Wordt er speciale software gebruikt om de verschillende bedrijfsrisico's te analyseren?

- Excel
  - Zelfgebouwd system
  - Speciale risicomanagement software
  - Projectrisico software
  - Geen
  - Anders:
- 
- 

37. Gebruikt u de schaderegistratie in de onderhandelingen voor een nieuwe verzekering?

- Ja
- Nee
- Nee, wij hebben geen schaderegistratie (verder naar vraag 39)

38. Gebruikt u een schadehistorie als basis om andere beheersmaatregelen voor risico's te identificeren?

- Ja, alleen voor het verzekeren van risico's
- Ja, voor specifieke beheersmaatregelen
- Nee

39. Met welke gevolgen wordt rekening gehouden met de analyse van de risico's?

- Financiële gevolgen
- Imago-gevolgen
- Veiligheidsgevolgen
- Vertraging-gevolgen (tijdsgevolgen)
- Gevolgen voor het niet halen van de doelstellingen

## 5. RISICOBEBEERSING

40. Wie toetst de keuze voor een beheersmaatregel?

- De Financiën & Control afdeling
- Risicomanagement coordinator
- Management team
- Raad van Toezicht / Commissarissen

41. Hoeveel procent van de verzekerbare risico's worden verzekerd? (Onbekend is 101) \_\_\_\_\_ %

42. Maakt u gebruik van een vaste tussenpersoon of verzekeraar om risico's te verzekeren?

- Vaste tussenpersonen voor verschillende verzekeraars.
- Vaste verzekeraar(s)
- Vaste tussenpersonen van vaste verzekeraar
- Geen vaste tussenpersoon
- Steeds verschillende verzekeraars

43. Maakt uw woningcorporatie voor het verzekeren van risico's gebruik van een captive constructie?

- Ja
- Nee

44. Stellingen:

	Helemaal mee eens				Helemaal niet mee eens		Geen mening
A. Het nut van de beheersmaatregelen weegt op tegen de kosten van de beheersmaatregelen.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B. De risicomaatregelen van de corporatie zorgen voor een verbetering van de financiële continuïteit.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C. De risicomaatregelen van de corporatie zorgen voor minder schades en schadegevallen.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## 6. ALGEMENE KENMERKEN

45. Is in het jaarverslag een paragraaf over risico's en risicomanagement opgenomen?

- Ja
- Nee
- Binnen twee jaar zal er een risicoparagraaf worden opgenomen.

Anders:

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46. In welke categorie is uw woningcorporatie vanwege het berekende weerstandsvermogen door het CFV ingedeeld?

- A
- B
- C
- D
- Onbekend

47. Telefoonnummer contactpersoon: \_\_\_\_\_

48. Emailadres contactpersoon: \_\_\_\_\_

49. Hoeveel medewerkers heeft de corporatie in dienst? \_\_\_\_\_

50. Hoeveel woongelegenheden heeft de woningcorporatie in de woningvoorraad (afgerond)?

\_\_\_\_\_ eenheden.

51. Is de woningcorporatie lid van de branchevereniging Aedes?

- Ja
- Nee

52. Opereert de woningcorporatie lokaal, regionaal of landelijk? (één antwoord)

- Lokaal
- Regionaal
- Landelijk

53. Is de woningcorporatie te typeren als een ondernemende of een beherende woningcorporatie?

- Beherend
- Ondernemend
- Beide

54. Opereert de woningcorporatie stedelijk of op het platteland?

- Platteland
- Stad
- Beide

55. Heeft u nog op- of aanmerkingen over deze enquête?

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Bedankt voor het invullen! U kunt de ingevulde enquête opsturen naar:

NAR  
t.a.v. T.T. Blom  
Postbus 769  
7500 AT Enschede

De resultaten zullen te zijner tijd worden gepubliceerd op [www.risicomangement.nl](http://www.risicomangement.nl). Voor vragen kunt u terecht bij T.T. Blom via [t.t.blom@student.utwente.nl](mailto:t.t.blom@student.utwente.nl).

## Appendix C Specific Risks of British Housing Associations

These risks from (Hargreaves Risk Management, 2003) are more or less related to the British situation.

Description of Risk Event	Cause
Announcement of future increases in pension contributions	Introduction of FRS17
Increased cost of maintaining defined benefit (final salary) pension scheme following results of triennial actuarial valuation	Low investment returns, poor management of active investment fund by fund manager, inappropriate spread of investments within portfolio
84 CAT 1 Flats built late 70s, no lifts, 3 or 4 storeys. No longer popular with the elderly.	A number of elderly tenants transferring to sheltered/dying causing a void problem. Coupled with the local authority not being able to offer sufficient nominations. Potential tenants saw the entrances and stairwells as uninviting.
The onset of the conversion to Supporting People Grant from care services being provided through the enhanced rents levied, primarily in elderly schemes.	The Supporting People Initiative, which requires care services to be separately identified from rent and paid through the new LA teams.
Stock condition information was incomplete or more than five years old. The advent of 'Decent Homes' meant Association needed to get a better understanding of the condition of its stock to ensure it could comply with the 'Decent Homes' initiative within the specified ten years.	Both the 'Decent Homes' initiative and an internal awareness that Association had poor knowledge of the actual condition of its properties.
100% increase in property insurance premiums, due largely to market conditions. Local claims experience fair.	September 11 2001 event in US. Insurance industry's losses through flood claims and losses in general insurance. Also their need to improve their balance sheets.
Problems in obtaining prompt payment of housing benefit from three London boroughs. One of them has improved from the significantly low base it was at.	In one borough, the problem is linked to outsourcing of benefit payments to an IT contractor. They have now brought the revenue and benefits service back in-house and have improved significantly from the low base they were at. However, another borough has now outsourced to the same contractor and their service arrears have increased.

## Appendix D Alternative (Basic) Model to Assign Risk Management Scores

A more basic model is presented below where the weights are assigned much less sensitive than in the original model presented in Section 4.5.1. This is because to contribute on the discussion on how the weights should be assigned in future development of the model.

Table 3: Basic Risk Management model

<b>Risk Management Aspect</b>	<b>Score</b>	<b>Remarks</b>
<b>Organizational Provisions</b>	<b>5</b>	<b>Total possible score</b>
Presence of written risk management policy	1	The presence of a written risk management policy is awarded with one point.
Risk management part of business processes		Respondents were able to choose both elements, so a maximum of 3 points could be assigned. Risk management part of planning & control cycle is awarded with two points.
<i>Part of Administrative Organization / Internal Controls(AO/IC)</i>	1	
<i>Part of Planning and Control Cycle</i>	2	
Presence of risk (management) paragraph in annual report	1	
<b>Risk Identification</b>	<b>4</b>	<b>Total possible score</b>
Techniques for identifying organizational risks		Using three or more techniques is considered better to identify risks than less.
<i>Number of techniques = 2</i>	1	
<i>Number of techniques ≥ 3</i>	2	
Techniques identifying project risks		Using three or more techniques is considered better to analyze risks than less.
<i>Number of techniques = 2</i>	1	
<i>Number of techniques ≥ 3</i>	2	
<b>Risk Analysis</b>	<b>8</b>	<b>Total possible score</b>
Frequency of risk evaluation and analyzing		Having risks evaluated one or more times per year is awarded with one point (less than one year is awarded with 0 points).
<i>Each year</i>	1	
<i>Each half year</i>	1	
<i>Each quartile or more often</i>	1	
Assessment of risks		In this model there is no judgment on the quality of the different ways to assess risks. The ways to assess risks are therefore considered as equal. In the conducted survey, the respondents had the choice for more options here, so a maximum of 4 points could be assigned.
<i>Qualitative</i>	1	
<i>Relative</i>	1	
<i>Quantitative</i>	1	
<i>Monte Carlo simulations</i>	1	

Use of software to analyze risks		This model give equal points to what kind of software tools are used to analyze risks. The respondent only had one option to choose, so a maximum of one point could be assigned.
<i>Excel</i>	1	
<i>Self made system</i>	1	
<i>Special risk management software</i>	1	
<i>Project risk software</i>	1	
<b>Total possible Risk Management Score</b>	<b>17</b>	<b>(Sum of Risk Identification, Risk Analysis and Organizational Provisions)</b>

Table 2: Assigned Risk Management Score based on basic model

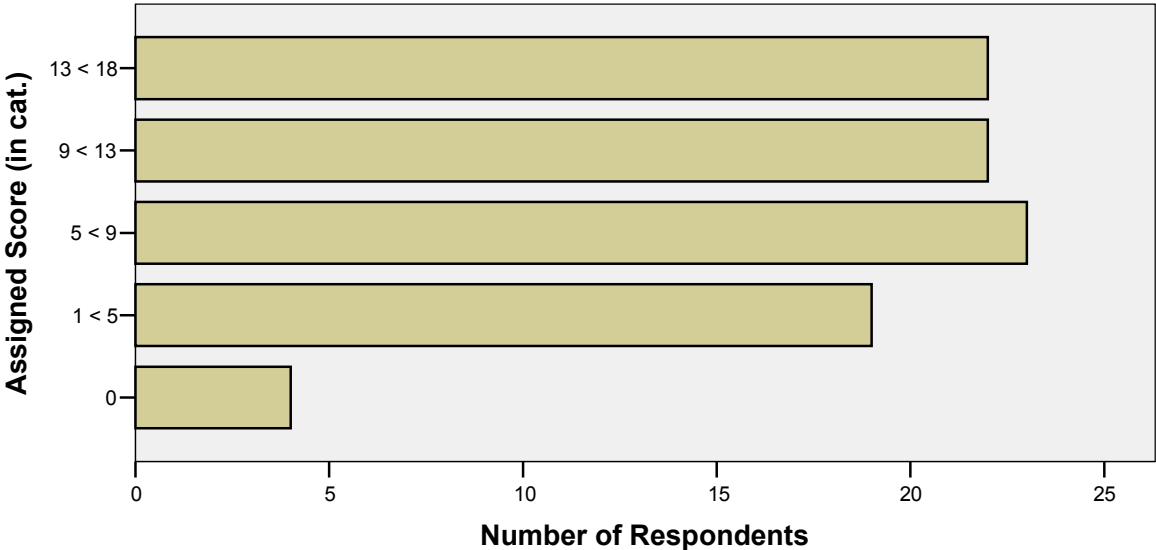


Table 3: Assigned Risk Management Score and having risk management introduced

