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## **Risk reporting in authorities – a comparative analysis between Germany and the USA**

### **Abstract**

Risks are an inherent part of life, thus also for the public sector. How do cities report and inform their stakeholder about risks? This is the main question of this contribution. After the evaluation of annual reports in particular risk reports of German and US-American cities, recommendations in order to improve the report quality are made. One important result is that especially the German (risk) reporting does not fulfil a modern understanding of reporting and information instruments. Adjusted frameworks for the public sector are in both countries missing but worthwhile to develop. Another finding is the emphasis on financial risks. A holistic and integrated approach, for example including climate or demographic changes does not exist in both countries, so far.

### **Points for Practitioners**

In order to meet stakeholders' expectations of getting information, the reporting should be improved. In particular, the evaluated risk reporting needs a fundamental revision. Often adopted methods and approaches of the private sector should be considered also in the case of risk reporting. Private companies inform their stakeholder holistic and integrated about risks. There is a development from a predominant financial

orientation to a better balance and consideration of non-financial information. To generate a framework for risk reporting in the public sector should consider these developments. A framework could improve the quality of reporting and comparability of cities and its reporting.

### **Keywords**

comparison of cities, motives for risk reporting, principal-agent-theory, public risks, risk reporting framework, stakeholder

### **Biographical notes**

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## **1. Introduction**

In a globalized, complex and uncertain world risks cannot be avoided. Neither countries, nor companies, nor individuals, nor cities are exempted from it. All actors are forced to estimate risks in different situations in order to deal with it as well as react to prospective uncertainties. In this context risk is often understood negatively, although every risk usually offers opportunities as well. In order to estimate risks accurately, one must compare and contrast the possible costs and benefits of each risk. But how do local authorities deal with risks? There are numerous and various risks within the public sector whose identification and assignments are not always explicit. Thus, the media frequently report on blunders within the public sector, for example, exploding construction costs. However, also natural risks, such as flooding disasters or demographical change, must be considered by the public sector. In order to give an overview of the possible risks to the numerous stakeholders of a city, risk reporting plays a crucial role. The objective of this paper is to analyse risk reporting of local authorities to their stakeholders, especially regarding its accessibility and quality, as well as to identify the differences between the German system and the system in the USA, and to present potential for improvement and lessons learned.

The comparison between the USA and Germany was chosen, because both countries are federal governments with a constitutionally legitimated local self-government. In addition, both countries have a legislation of states that are subordinate to the federal government. In order to answer the research questions accurately, the necessity of risk

reporting must be explained. The principal-agent-theory offers worthwhile approaches, as it addresses the problem area of information asymmetries. Because of this, the most important stakeholder of local authorities needs to be identified and brought into relation with the principal-agent-theory. Furthermore, it is necessary to define the term 'risk' within German and US-American literature in order to discover possible differences. The legal requirements that must be satisfied by risk reporting will also be presented here, both in the public and the private sector. The following empirical study is predominantly a baseline study of risk reporting in selected German and US-American cities. Therefore, a catalogue of criteria should evaluate the reports. Out of the indicated findings, lessons learned and opportunities for improvement will be extracted before the paper closes with a conclusion.

## **2. Necessity of risk reporting –a theory driven perspective**

New Institutional Economics is considered to be a worthwhile theoretical framework for external reporting (Eisenschmidt, 2012), thereby risk reporting. It is based upon the idea of bounded rationality as well as opportunism and explains the appearance of transaction costs (Feldmann, 1995; Jost, 2007: 783). Bounded rationality implicates limited possibilities regarding information procurement and processing, coupled with uncertainty over environmental conditions and states (Feldmann, 1995; Schreyögg, 2008). Information asymmetries between actors can lead to advantages on one side resulting from opportunistic behaviour (Kirchner, 1997; Feldmann, 1995). The principal-agent-theory addresses information asymmetries and offers solutions to avoid them, making it a worthwhile theoretical framework for external reporting and risk reporting (Kirchner, 1997; Eisenschmidt, 2012; Ruhnke, 2008). In addition, this theory is often chosen to investigate particular issues within the public sector such as giving explanations how to effectively and efficiently fulfil public tasks (Papenfuß, 2013).

Multi-level principal-agent-chains (contracting authority – contractor-relationship) dominate in the public sector. In this sector citizens are always the first principal, because all power emanates from its citizens (Basic Law: Article 20 (2), preamble to the Constitution of the United States of America). Per elections, they delegate public organisational tasks to politicians who thereby become the first agents. In turn, Politicians address tasks to the public administration, public enterprises, or other actors

which in turn can appear as contracting authorities by themselves. Thus, complex interwoven structures of actors arise, in which agents can simultaneously be principals. Due to an uncertain environment and unpredictable reactions between counterparts which cannot be formally agreed upon, motivation and coordination problems can occur between the actors (Schwäger and Meyer, 2009). Furthermore, information asymmetries and differences in interests between contracting authority and contractor exist which intensify with increasing complexity. A method to reduce these asymmetries and potential principal-agent-conflicts is to use extensive and targeted reporting including status reports and risk reports. These reports should be addressed to the principals and are part of the control function. The danger of hidden information remains in the reporting itself, for which reason objective and responsible (risk) reporting is necessary. This is the only way that risks can be identified and communicated to the local authority's stakeholders (Burth and Hilgers, 2012).

All this contributes to a reduction of information asymmetries between stakeholders and the local authority. Stakeholders' approaches deal with the consideration of the interests of external and internal groups, because ". . . corporate survival depends in part on there being some 'fit' between the values of the corporation and its managers and the expectation of stakeholders and societal issues ..." (Freeman, 1984: 107) This statement does not only apply for the private sector but can be transferred to the public sector (Bryson, 2004) and is underlined by Jackson (1995: ): "Both public and private sector organisations and institutions have to manage and balance the needs of the various stakeholders to deliver the highest level of value . . ." Following these

approaches, the stakeholders' interests must be considered by local authorities. The primary aim of a local authority, which acts in place of the citizen, is to maximise wealth (Saliterer, 2007). Naturally, all these aspects contain risks which can jeopardize the target achievement. Consequently, an instrument is needed in order to ensure that risks are identified and subsequently controlled. Risk reporting serves as a central element which informs stakeholders about distresses within the scope of yearly reports. Therefore, the stakeholders of the local authority are the same as for the reporting authority. Within the group of stakeholders, there is a latent hierarchy in the perspective of the originator of the reports. This latent hierarchy depends on the different importance and closeness of the stakeholder to the local authority.

## **2.1 Definition of risk**

In everyday life, people are faced with the term 'risk' in different situations and contexts. An explicit and clearly identifiable definition of risk cannot exist because of the disparate perspectives of different specialists, disciplines, and their related various theoretical backgrounds (Budäus and Hilgers, 2009). However, there are recurrent assumptions for the term risk: A risk always exists when a prospective situation cannot be estimated with 100% certainty (Fone and Young, 2000). Birkholz (2009) defines risk as a variation of a target figure around the expected value, whereby the miss of the pursued aim is included. Thus, it describes the uncertainty of a prospective environment and influences the target achievements in a greater or lesser degree (Burth and Hilgers, 2012; Ebert, 2014). Hence, suitable probabilities result for the risk

taker including the corresponding potential consequences which pictures the realistic situations' dynamic (Drennan and McConnell, 2007). Fone and Young (2000: 2) put it in a nutshell: "Risk is the variation in outcomes around an expectation." The US-American literature defines risk similar, so that this paper can follow the presented definition.<sup>1</sup>

## **2.2 Risks in the public sector**

Every future-orientated action will be inevitably associated with risks – on this basis there is no difference between private and public institutions and their risks. However, the different target structures of public and private organizations need to be considered: private companies focus on quantitative profit maximization and public organizations primarily focus on achievement of qualitative objectives. Public tasks, which are related to the common interest, must be fulfilled reliably. This underlines the necessity of a secured allocation of resources. Another difference is the number of relevant stakeholders, which are involved in the public sector and its risks. The bottom line is that despite divergent target structures, the problem structures are similar in both types of organizations (Budäus and Hilgers, 2009; Drennan and McConnel, 2007; Schwarting, 2005). Fone and Young (2000) define that risks become public risks if one of the following points apply:

1. The risk cannot be allocated by the market. Either the burden of the risk cannot be efficiently allocated on the private actors or the risk is too great to handle.

2. External effects are involved with the risks, which can't be covered by market prices. External effects are not predicted, therefore, they cannot be covered market prices.
3. A political process manifests the risk.
4. The risk negatively affects the security of individual rights.
5. The risk has a high degree of uncertainty.
6. The risk endangers the public.

Thus, public risk can be characterized as factual circumstances or processes which concern the public interest particularly if the risk can compromise the protection of individual rights, balance of interests, or the protection of democratic political processes.

### **3. Risk reporting**

In the following paragraph, the legal requirements of risk reporting in the USA and Germany are presented.

#### **3.1 Risk reporting in Germany**

Municipalities which apply to commercial principles of accounting and accountability and rely on the requirements of the German commercial code (HGB) must compile an annual financial statement as well as a status report (§ 264 (1) HGB). The status report is not part of the annual financial statement but an independent and qualitative

instrument of accountability. It includes the business and general condition, revenue, net assets, financial situation, a chance and risk report, as well as a forecast report (Fudalla and Schwarting, 2009). The tasks of the status report consist of the information and forecast function as well as the accountability and communication function as described in the municipal financial regulations of the states (Burth and Hilgers, 2012).

Local authorities, when introducing a commercial accounting system<sup>2</sup>, often orientate their systems towards the German Commercial Code § 289 and § 315. Therefore, these paragraphs ought to be studied in greater detail. These paragraphs state that within the status report every probable development with its significant chances and risks must be estimated and explained, and additionally, the assumptions which the forecast are based upon must be specified. Since 2012, the content-related design of risk reports was concretized by the German Accounting Standard (DRS) No. 20 and recommended by the DRS to be implemented within status reports which are created on the basis of German Commercial Code § 289. The requirements of DRS 20 also provide suggestions for risk reporting of local authorities which can be adapted specifically for the public sector and its risks. The following chart highlights the requirements of 'municipal budget law of state' for status reporting and in particular risk reporting. The chart is a selection showing the differences between 8 of the German Federal States as an example of the federal system.

| State                         | Source of Law  | Source of Law Risk Reporting   | Wording of the Law  |
|-------------------------------|--|--|---|
| Berlin                        | n / a  | n / a  | n / a   |
| Hamburg                       | Accounting Guidelines, §289 Commercial Code                        | § 289 Commercial Code  | § 289 Commercial Code   |
| Brandenburg                   | § 63 Abs 3 / §85 municipal constitution in Brandenburg             | § 59 Abs. 2 Kommunale Haushalts- und Kassenverordnung Brandenburg            | Expected probable risks of particular importance  |
| Bavaria                       | §102 municipal code Bavaria  | § 87 Abs. 2 Kommunalhaushaltsverordnung Doppik Bavaria                       | Expected positive developments and probable risks of particular importance  |
| Hesse                         | §112 Hesse municipal code  | § 51 Abs. 2 Gemeindehaushaltsverordnung Doppik Hesse                         | Probable development with its significant chances and risks of particular importance; assumptions must be given                             |
| Mecklenburg-Western Pomerania | §60 Abs. 3 law of municipal constitution in Mecklenburg-Vorpommern | § 49 Abs. 3 Gemeindehaushaltsverordnung Doppik Mecklenburg-Western Pomerania | Chances and risks of the prospective development of the municipality, assumptions must be given   |
| Lower Saxony                  | §128 Abs. 3 Niedersächsisches Kommunalverfassungsgesetz            | § 57 Abs. 2 Gemeindehaushalts- und -kassenverordnung Lower Saxony            | Expected financial risks for the task fulfilment of particular importance   |
| Saarland                      | § 99 Abs. 3 law of local self-government in the Saarland           | § 48 Abs. 1 Nr. 3b Kommunalhaushaltsverordnung Saarland                      | Assumptions of the prospective development of significant general conditions in particular financial and economical perspectives and risks. |

**Table 1. Examples of German legal requirements.**  
**Source: own research**

### **3.2 Risk reporting in the USA**

In the USA, the Financial Accounting Standards Board codifies accounting regulations in cooperation with the American Institute of Chartered Public Accountants resulting in the creation of the General Accepted Accounting Principles (US-GAAP). The Securities and Exchange Commission (SEC), particularly the Securities Exchange Act of 1934 in Section 13 and 15(d), implements the regulation into law in order to use these standards (Stiller, 2013). The annual report of importance for the paper is 10-K. This report includes risk factors (Item 1A) which are significantly relevant for a company or its security. Usually, these risk factors are arranged by importance. In addition, Item 7a “Quantitative and Qualitative Disclosures about Market risks” should give information about market risks such as currency, resources, or stock price risks. Not only public and private companies, but also private organizations such as Non-Profit-Organizations, are legally obligated to compile a report. Indeed, the regulations of the FASB do not apply for local authorities. The Governmental Accounting Standards Board (GASB) defines the generally accepted accounting principles for states, cities and municipalities, which does not stipulate a 10-K. However, following Statement No. 34, a Comprehensive Annual Financial Report (CAFR) is required. Following Statement No. 10, the report should focus on compensation for damages, theft or damages of assets, business interruptions, mistakes or failure, occupational illnesses or injuries of the employees, force majeure and other loss risks of participating companies, provided that they arise in relation to a risk pool (GASB, 1989). The later established Statement No. 40, including the concentration on credit risks, which

comprise both interest rate risks and foreign currency exposures, expands these requirements. Statement No. 40 does not rename these risks, but it rather updates Statement No. 3 in which liquidity and general credit risks are already mentioned. To summarize, all these regulations should focus on liquidity risk, market risk, interest rate risk and foreign exchange risks as well as general credit risks and credit risk concentrations. In addition, the risk of bank failure needs to be mentioned if it can danger the city's or municipality's liquidity due to the inability of its deposits. If and how other risks should be reported is not obliged, neither by laws of the federal government nor by laws of the individual states. Besides, the obligation to use US-GAAP by the state law, Governmental Code 6253 (a) sentence 2, simply orders that the reports should be published. The chart below is a selection showing the differences between the states due to the federal system.

| State           | Wording of the Law   | Source of Law                                |
|-----------------|--|--|
| Albuquerque     | The division shall compile a comprehensive annual financial report. To assist in the compilation of the report, each state agency shall compile, in accordance with generally accepted accounting principles, its financial statements on a schedule established by the division.  | New Mexico Statutes §6-5-4.1                 |
| Washington D.C. | Beginning October 1, 1979, the District will account for and report on, unless specifically noted in financial reports, its financial transactions in accordance with generally accepted accounting principles.  | Code of the District of Columbia §47-374 (a) |
| Los Angeles     | (...) Beginning with all audits of business conducted after December 31, 1995, the audit shall be sufficiently comprehensive in scope to permit the expression of an opinion on the financial statements prepared in accordance with generally accepted accounting principles and shall be performed in accordance with generally accepted auditing standards. | California Financial Code Section 50200 (a)  |

**Table 2. Examples of US-American legal requirements.**  
**Source: own research**

#### **4. Empirical study**

For this analysis, the respective regional capital of each of the sixteen German states are chosen, because they serve as an example in each particular state and represent their different legal requirements. As a result, the following cities are selected: Berlin, Hamburg, Bremen, Hanover, Schwerin, Kiel, Wiesbaden, Düsseldorf, Mainz, Saarbrücken, Munich, Stuttgart, Potsdam, Dresden, Magdeburg and Erfurt. Given that the comparison to the USA should be qualitatively equivalent and clear, sixteen representative cities out of 50 states have to be selected. For this, the following method is developed in order to combine both concrete criteria and coincidence: Firstly, the

USA is geographically split into five parts: North, East, South, West and the middle. Secondly, in each cluster the most, least, and average populous state is selected. Out of the resulting fifteen states the most populous city is considered. Washington D.C. is included as sixteenth, because of its particular status. It is neither an official state nor belongs to a state but is directly represented by the Congress of the United States. Thus, the following cities are selected: Albuquerque, Anchorage, Burlington, Chicago, Columbia, Cheyenne, Washington D.C., Detroit, Fargo, Houston, Las Vegas, Los Angeles, Louisville, Minneapolis, New Orleans, and New York City.

For a comparative analysis of risk reporting, a catalogue of criteria has been developed. Therefore, six superordinate terms are identified: Completeness, which is not only a list of risks that may affect the municipalities, but also explanations to these risks, countermeasures, probabilities, and quantifications including underlying assumptions. The second point represents the report's clarity containing structure, graphics, classifications, etc. The third point of analysis, compliance with the DRS20, seems to favor German municipalities due to its origin, but these attributes are objective, advisable, and convenient. Thus, they are indispensable for reasonable risk reporting in Germany, as well as in the USA. For instance, this includes reporting in an adequate scope which depends on the circumstances, a listing of possible jeopardizing risks, the creation of risk categories, comprehensibility, probability, relevant changes to the previous year, etc. The DRS20 is chosen because it is more precise concerning how reports should be created. In comparison, the US requirements are picked out as central themes from the Securities and Exchange Act of 1934 in Section 13 and 15(d),

risk Factors (1A) and quantitative and qualitative disclosures about market risks (7A). The next important, and therefore separate category, is the report's currentness. The more current a report is the more points are achieved. The fifth criteria of the analysis are legal requirements, for example, in German local government acts or legal requirements in USA, which concentrate on status reports or accountability reports. If some of such requirements exist it is positively evaluated. The last criterion is more or less a bonus by which extra points may be collected additionally to the highest possible points. For instance, this is possible by using additional media, except for reports. The following table summarizes the catalogue and gives an overview of how many points can be collected per category and in total.

| Criterion              | Completeness           |           | Clarity                 |          | Compliance with DR320                 |           | Currentness |           | Legal Requirements |           | Miscellaneous    |   | Total P |
|------------------------|------------------------|-----------|-------------------------|----------|---------------------------------------|-----------|-------------|-----------|--------------------|-----------|------------------|---|---------|
|                        |                        | Points    |                         | Points   |                                       | P         |             | P         |                    | P         |                  | P |         |
| Positions              | Financial              | 1         | Seperated Parts         | 1        | Adequate Reporting                    | 1         | 2014        | 10        | If available       | 10        | for each (Media) | 2 |         |
|                        | Fiscal                 | 1         | Structure with titles   | 1        | Focus on specific circumstances       | 1         | 2013        | 8         |                    |           |                  |   |         |
|                        | Participation          | 1         | Accentuation            | 1        | Jeopardizing Risks                    | 1         | 2012        | 6         |                    |           |                  |   |         |
|                        | Economic               | 1         | Graphics                | 1        | Risk Concentration                    | 1         |             |           |                    |           |                  |   |         |
|                        | Technical              | 1         | Identifiable Structure  | 1        | Creating Risk Categories              | 1         |             |           |                    |           |                  |   |         |
|                        | Personell              | 1         | Comprehensible Language | 1        | Comprehensibleness                    | 1         |             |           |                    |           |                  |   |         |
|                        | Organizational         | 1         |                         |          | Probability                           | 1         |             |           |                    |           |                  |   |         |
|                        | Public Procurement     | 1         |                         |          | Impact                                | 1         |             |           |                    |           |                  |   |         |
|                        | Specific (high tide)   | 1         |                         |          | Quantification of Financial Risks     | 1         |             |           |                    |           |                  |   |         |
|                        | Demographical          | 1         |                         |          | Measures taken                        | 1         |             |           |                    |           |                  |   |         |
|                        | Health and Environment | 1         |                         |          | Forecasting Horizon                   | 1         |             |           |                    |           |                  |   |         |
|                        | Social                 | 1         |                         |          | Interdependences                      | 1         |             |           |                    |           |                  |   |         |
|                        | IT                     | 1         |                         |          | No Settling between Chances and Risks | 1         |             |           |                    |           |                  |   |         |
|                        | Jeopardizing Risks     | 1         |                         |          | Description of Risk Management        | 1         |             |           |                    |           |                  |   |         |
|                        | Political / Legal      | 1         |                         |          | close Presentation                    | 1         |             |           |                    |           |                  |   |         |
|                        | Miscellaneous          | 1         |                         |          | Seperation of the Group Report        | 1         |             |           |                    |           |                  |   |         |
|                        | Explanations           | 1         |                         |          | Cross References                      | 1         |             |           |                    |           |                  |   |         |
|                        | Measures taken         | 1         |                         |          | Relevant Changes to the previous Year | 1         |             |           |                    |           |                  |   |         |
|                        | Probability            | 1         |                         |          |                                       |           |             |           |                    |           |                  |   |         |
|                        | Quantification         | 1         |                         |          |                                       |           |             |           |                    |           |                  |   |         |
| Assumptions            | 1                      |           |                         |          |                                       |           |             |           |                    |           |                  |   |         |
| <b>Positions Total</b> |                        | <b>21</b> |                         | <b>6</b> |                                       | <b>18</b> |             | <b>10</b> |                    | <b>10</b> | <b>variable</b>  |   |         |

Table 3. Research criteria and catalogue.

Source: own research

#### 4.1 Analysis of risk reporting in Germany

The status reports of Dresden, Erfurt and Schwerin cannot be rated because they are not available. Although, there is a legal basis of preparing a status report, an appraisable status report of Düsseldorf within the annual accounts cannot be found. Consequently, those cities are not considered within the analysis. Thereby, only 12 reports out of 16 cities can be rated.

Noticeable by analyzing the first criteria *completeness* is that the possible 21 points are not achieved by any municipality. The maximum number of points reached is 9 by Hamburg and Wiesbaden.

Within the second criteria, *clarity*, factors are rated which appear objectively appropriate. Thus, relatively high scores should be expected. But it is quite the contrary, because only Hamburg achieves 6 out of 6 possible points. The bottom line with 1 point is represented by Stuttgart, due to missing a separate part and structure. The distribution of reported risks seems to be haphazard. They are spread over the entire report. Additionally, there are neither diagrams nor accentuations.

The *compliance to DRS20* recommendation, the third criteria, is neglected consequently by the majority. The high score of 9 out of 18 points is gained by Wiesbaden. In contrast, Stuttgart is again the city with the fewest number of

points which are gained with comprehensibility and quantification of financial risks.

In terms of currentness, the fourth criteria, no city really satisfies the criteria, because no report considers the year 2014. Five reports deal with 2013, but the majority is older. The oldest one examines 2010 and is therefore outdated.

If only completeness, clarity, compliance to DRS20, and currentness are considered, Hamburg achieves the high score with 30 out of 55 possible points, and Mainz with 12 out of 55 the lowest score. Mainz's results can be explained by the report's shortness, the concomitant incompleteness, the insufficient clarity, the noncompliance to DRS20 and the obsolescence.

It is noticeable that the municipalities' risk reporting focuses on financial risks rather than other risks. Risks such as demographic change or superannuation of the population are almost neglected.

The inclusion of the fifth criteria, *legal requirements*, into the evaluation does not change the results significantly. Every municipality besides Hamburg, Berlin, and Bremen possess legal requirements. As the three cities are in union state and municipality simultaneously, separate municipal legal requirements as for all other cities and municipalities are not available. (Musil und Kirchner, 2007).

After finishing the analysis of the reports, *miscellaneous*, the sixth criteria, is considered. Thus, the cities without a rateable report are included into the analysis again because the status reports are not crucial at this point. The usage of information boxes, question times, health guides, open board meetings, crime reports, and citizen information systems leads to the highest number of points for Erfurt and Dresden with 18 points. Only 6 points, the lowest score, is obtained by several cities which limit themselves to standard media such as internet presence, newsletter and media releases.

If all six criteria are aggregated, Wiesbaden achieves 46 points, the highest, while Mainz with 30 points obtains the fewest number of points out of 65 possible. Therefore, the range is between 30 and 46 points, which means the gap between the relatively best and worst report result is 16 points. Despite numerous potential capabilities to report faithfully, the impression rises that stakeholders have to acquire information by themselves expensively if they are interested. The following chart shows the results of the analysis in Germany.

| City        | Completeness | Clarity | Compliance to DRS20 | Currentness | Legal Requirements | Miscellaneous | Total |
|-------------|--------------|---------|---------------------|-------------|--------------------|---------------|-------|
| Berlin      | 5            | 3       | 6                   | 8           | 0                  | 10            | 32    |
| Bremen      | 7            | 4       | 6                   | 8           | 0                  | 12            | 37    |
| Dresden     | n/a          | n/a     | n/a                 | n/a         | 10                 | 18            | 28    |
| Düsseldorf  | 0            | 0       | 0                   | 0           | 10                 | 14            | 24    |
| Erfurt      | n/a          | n/a     | n/a                 | n/a         | 10                 | 18            | 28    |
| Hamburg     | 9            | 6       | 7                   | 8           | 0                  | 12            | 42    |
| Hannover    | 4            | 4       | 7                   | 6           | 5                  | 10            | 36    |
| Kiel        | 4            | 3       | 6                   | 6           | 10                 | 14            | 43    |
| Magdeburg   | 2            | 2       | 5                   | 6           | 10                 | 14            | 39    |
| Mainz       | 4            | 2       | 4                   | 2           | 10                 | 8             | 30    |
| Munich      | 5            | 2       | 5                   | 8           | 10                 | 10            | 40    |
| Potsdam     | 4            | 2       | 5                   | 4           | 10                 | 14            | 39    |
| Saarbrücken | 8            | 4       | 4                   | 2           | 10                 | 10            | 38    |
| Schwerin    | n/a          | n/a     | n/a                 | n/a         | 10                 | 8             | 18    |
| Stuttgart   | 4            | 1       | 2                   | 8           | 10                 | 10            | 35    |
| Wiesbaden   | 9            | 4       | 9                   | 6           | 10                 | 8             | 46    |

**Table 4. German research results.**  
**Source: own research**

## **4.2 Analysis of risk reporting in the US**

The American CAFRs are the reports which are very similar to German status reports. Therefore, they are analyzed and compared. Occasionally, there are so-called “Risk Management Reports” but they predominantly include claims for compensations for persons who or whose property has been harmed by the public authorities. (Ernst, 2012). Thus, they are not risk reports in a classical point of view.

Analyzing completeness, New York City (NYC) achieves the high score with 10 points. Mentioning not only numerous risks, for instance climate change and investment risks, but also explanations as well as underlying assumptions with risk handling actions justifies this. The lowest number of points is obtained by Las Vegas because they focus strongly on financial data while they neglect other risks.

Considering the reports’ clarity (second criteria), the distribution of points is almost equal. Every report is very similar concerning their inner structure. Thus, every report achieves 4 points. The reports entail titles for each risk, a perceptible structure, clear charts or tables and a comprehensible language.

The assumption that German reports benefit in rating the compliance to DRS20, whereas US reports automatically perform worse by this standard is vindicated.

However, this is not correct, because in fact, the US point margin from 6 to 8 points is slightly higher than the German margin. Often, these relatively good results are reached by a more detailed description of the cities' risk management or a better delineation of variances to the previous year.

Respective to the reports' currentness, a fundamental disparity between Germany and the US becomes visible. While the oldest US reports pertain to the year 2013 and are published by only 4 cities, all the other reports are from 2014. Thus, the published reports are invariably topical.

If the points of the reports' analyses are aggregated, NYC achieves the highest number of points: 32 out of 55 possible. Albuquerque and New Orleans with 26 points are relatively close behind. The relatively insignificant gap could on the one hand be explained by a difference within currentness, and on the other hand, by the adherence to the DRS20, as well as the detailed presentation of risks.

Principally, financial risks are the primary focus, while other potential risks are only introduced. Qualitatively, the reports are not easy to compare because a separate segment dealing with risks is missing. Quantitatively, the presented data concerning mentioned risks is relatively detailed and therefore sufficient.

For the last criteria, miscellaneous, it is conspicuous that on the US side there are more additional media instruments than on the German side. The bottom-placed cities with 8 points are Burlington and Columbia. They cannot obtain many points because they limit their instruments to an internet presentation, press releases, a storm water report, an Emergency Management and Citizen Alert System. The high score of 20 points is achieved by Fargo and NYC. Among other things, they make use for example of an internet presentation, a health service system, "Access TV", newsletter, flood maps, sex offender location maps with a comprehensive view of risks and threats.

In this category, more modern instruments for distributing information are used, such as mobile apps and Code Red Emergency Alert Systems, which automatically send SMS or Push-message alert if a severe risk occurs.

If all obtained points are aggregated, the relatively worst score is received with 45 points by Columbia, while NYC achieves the high score with 62 points. The following chart shows the results for the cities.

| City            | Completeness | Clarity | Compliance to DRS20 | Currentness | Legal Requirements | Miscellaneous | Total |
|-----------------|--------------|---------|---------------------|-------------|--------------------|---------------|-------|
| Albuquerque     | 6            | 4       | 6                   | 10          | 10                 | 10            | 46    |
| Anchorage       | 9            | 4       | 8                   | 8           | 10                 | 14            | 53    |
| Burlington      | 7            | 4       | 7                   | 10          | 10                 | 8             | 46    |
| Chicago         | 8            | 4       | 7                   | 10          | 10                 | 12            | 51    |
| Columbia        | 7            | 4       | 6                   | 10          | 10                 | 8             | 45    |
| Cheyenne        | 6            | 4       | 7                   | 10          | 10                 | 10            | 47    |
| Washington D.C. | 7            | 4       | 7                   | 10          | 10                 | 18            | 56    |
| Detroit         | 8            | 4       | 7                   | 8           | 10                 | 12            | 49    |
| Fargo           | 8            | 4       | 8                   | 10          | 10                 | 20            | 60    |
| Houston         | 8            | 4       | 8                   | 10          | 10                 | 18            | 58    |
| Las Vegas       | 5            | 4       | 6                   | 10          | 10                 | 14            | 49    |
| Los Angeles     | 8            | 4       | 7                   | 8           | 10                 | 10            | 47    |
| Louisville      | 7            | 4       | 6                   | 10          | 10                 | 16            | 53    |
| Minneapolis     | 7            | 4       | 8                   | 10          | 10                 | 10            | 49    |
| New Orleans     | 7            | 4       | 7                   | 8           | 10                 | 14            | 50    |
| New York City   | 10           | 4       | 8                   | 10          | 10                 | 20            | 62    |

**Table 5. Results US-American research**  
**Source: own research**

### 4.3 Result comparison

Once the US and Germany's results are put in relation, a significant discrepancy is disclosed. Germany's best rated report, published by Wiesbaden, receives 46 points. Thus, this report possesses only 1 point more compared to

the worst of the US rated, Albuquerque, and 16 points less in comparison to the best rated of the US, NYC. Although, in Germany there exists a legal basis which should force the territorial authorities to report risks within the status report, a lack of detailed descriptions on how to report prevents a standardized risk reporting. As a result, a significant discrepancy between execution and evaluation is visible. Indeed, reports are published in the status report, but they are substantially, as well as quantitatively, short and superficial. In contrast to Germany, the US law claims only a report for financial risks, while further presentations are voluntary. In each of the examined municipal laws a regulation to comply to the US-GAAP exists, which leads to a similar structure within the American reports. Consequentially, a beneficial effect results: the comparability between those reports is relatively simple. As a result of these missing guidelines in Germany, the comparison between the municipalities' reports is objectively almost impossible. On the other hand, due to these missing guidelines, it is theoretically possible to report in a more detailed, more visual, and more creative way about occurring risks in specific cities such as Hamburg has done.

Comparing the reports' currentness, the American reports are topical and no report is older than 2013. In contrast, no German report is of 2014 and only 5 are of 2013. The oldest is out of the year 2010. This discrepancy may be

explained by different dates of the fiscal year, because in the US it either ends in December or in June. But this cannot justify the outdated German reports from 2010 and older. A possible explanation for the relatively outdated published German reports could be the lack of sanctions if no report is published.

To contrast the US with the German situation concerning the additional media, reporting in the US culture seems to be more modern, eclectic, and more creative. They not only involve more media, but also use more modern instruments such as mobile applications, SMS alert systems, and ordinarily, clearer internet presentation. The impression could arise that German municipalities are behind the Americans' concerning e-government; at any rate they do not deplete all their technical capabilities. Thereby, it remains difficult for stakeholders to receive profound information. However, in summary, both countries' municipalities use their internet presentation for distributing their information, although in a different way.

## **5. Summary and reform proposal**

The German legislative authority has defined that risk reporting has to be part of the status report. Thus, regional authorities must create risk reports. In absence of more specific rules how this should be done, the cities show a significant

potential for improvement with a range from 19 to 35 points out of 65 possible. Occasionally, there are proficient approaches, but they are in early stages and reveal a need for reform.

The US cities' CAFR reports obtain more points but their presentation seems to be slightly superficial. They achieve between 45 and 62 points but their reports primarily are limited to financial aspects, whereas the evaluation catalog rates reporting on a basis of general risks. This limited scope could be explained by the state laws which oblige authorities to use the US-GAAP. Nonetheless, they achieve a high number of points through reporting about financial risks in a very detailed manner and a comprehensive structure.

The German literature includes a reform proposal, which was created by the eminent authors Burt and Hilgers (2012). The proposal's aim is to establish a comprehensive and standardized risk reporting procedure for cities. Their proposed policy for municipal risk reporting is applicable to both German and US cities and is divided into two steps. First, the various aspects of the reported risk need to be considered and analysed. This step includes explanations of both reported risks and opportunities, an estimate of probability of occurrence and amount of damage, underlying assumptions, presentation of risk handling actions, and presentation of risk strategy. Second, the analysed risk is assigned to a category. A risk may be categorized as internal or external. Internal risks

pertain to organizational infrastructure risks such as finance management, personnel management (such as personnel planning), technology development risks (such as IT-security), sourcing risks (such as acquisition of external knowledge), as well as political risks (such as the problem of majority), and continuously changing strategy. External risks are represented by economic risks (such as interest rate), ecological risks (such as climate change or natural disasters), as well as social risk (such as demographic change or urbanization). It is possible to file most of the risks which are relevant for regional authorities into these general terms. Within those terms, a more detailed sorting is conceivable, which would make the cities capable of handling these risks step by step.

In addition, another method to improve risk reporting, a more concrete statutory basis would be conceivable. As a first attempt, the DRS20 could, at least in Germany, be transferred into applicable law after a few adjustments to the public sector. This would ensure proper and objective risk reporting within the status report. Furthermore, incentives for punctual, objective, and informative preparation and sanctions for inadequate or lack of preparation of reports would be conceivable options to motivate the cities externally. This is also a solution which the principal agent theory fundamentally proposes. Unfortunately, this would require an entity which would check not only the fabrication but also the

publication and the reports' contents quality and quantity. Potential sanctions could be for instance fines, displacements, or promotional stops. The problem is: due to the usually inflexible framework of the German public sector, displacements of personnel are hard to enforce. For example, the service law in Germany would prevent using displacements of personnel as a punishment. But the German service law recently opened reform for opportunity: If a public employee does not perform to a required standard, there will be no opportunity for salary increase nor promotion, not even in the regular terms (e.g. Art. 30 BayBesG). Additionally, it is not a simple task to identify a specific person or department that did not perform well, because they are created in cooperation with many persons and departments. A system of clear distribution of responsibility would counteract this problem. The department that creates the risk report should certainly use the other departments' expertise, but should remain responsible for the entire report.

By analysing the reports, a strong emphasis on financial risks became obvious. In the private sector a new trend has started, with the keyword "integrated reporting". This means the current overbalance of financial aspects turns into a general reporting system where financial and especially non-financial indicators become more important and are related to each other (Müller and Stawinoga, 2015). This progress of not limiting to financial risks should be considered in

Germany as well as in the USA in order to integrate more non-financial indicators. For instance, they could mention information about the demographic change and its consequences. Another example for an already visible risk is environmental risk. Besides the visible consequences of climate change, other risks are derivable, for instance, a lack of drinking water in Las Vegas.

Thoughtful and objective reporting is an indicator for a future-directed policy, which could be interpreted as a competitive advantage. The necessity for more non-financial rather than financial risk reporting is equally valid for Germany as well as the USA.

The analysis illustrates that the US utilizes new media intensively in order to distribute information, especially to inform about risks which affect the citizens' daily life. Therefore, risks are not only mentioned, but also explained, and countermeasures are listed. This is a contrast to Germany, which shows pent-up demand concerning this matter.

## **6. Conclusion**

Neither enterprises, nor persons, nor regional authorities are exempt of risks because they are omnipresent. Therefore, it is necessary to identify, analyse and monitor the risk in order to control it. Simultaneously, it is indispensable to report about these risks constantly to recognize developments and changes,

but also to inform stakeholders, regional authorities, and especially citizens, to create trust through transparency. An additional feeling of safety could result from not only publishing reports, but also the utilization of the possible retaliatory actions, which have been mentioned. Germany's state capitals, as well as cities in the USA bear a special responsibility to inform their citizens due to their status. In Germany risk reports are included in the status reports. Unfortunately, it is relatively short and uninformative, whereas the cities of the US do not have a risk report, but a CAFR which covers financial risks is very detailed, although ignoring non-financial risks. Some parts of said reports even appear as though the authors would treat those reports as advertising for investors, rather than for objective reporting.

By using modern Media, the lack of information in reports is may be mitigated in part, a strategy which slightly more effective in the US than in Germany. For the most part, modern media covers risks which threat the citizen directly and not the regional authority itself. The biggest difference between these two countries lies in a different way of reporting. While German risk reporting distributes threats that topic specific to certain topics, the US system creates lists mostly pertaining to potential hazards. However, the statement is still valid, that risks that threat the regional authority directly, e.g. personnel risks in the public administration, are not reported sufficiently.

In conclusion, it is obvious that the written form of both countries' report systems show a demand for reformation. An incentive and sanction system would be conceivable, one containing new, more concrete statutory provisions in order to promote objective risk reporting.

The existence of information asymmetries between a top principal and his corresponding agent will never be eliminated by risk reporting alone, regardless of its quality. Thus, it is essential that citizens who are interested in their city to become proactive by actively searching for information. It is evident that in order for citizens to be adequately informed about risks, they must expand their research beyond what is provided by the government. Although the probability that information is available is relatively high, e.g. on a city's web page or in a report, the information is also more likely to be hidden rather than sufficiently presented to the public.

In this paper, it was only possible to cover and analyse a limited area of risk reporting due to the topic's complexity and extent. The presented paper should be understood as an introductory source. For further analysis it would be ideal to interview experts in order to understand why regional authorities behave as has been discovered as well as to comprehend what solutions may be feasible in order to ensure that the public's information is properly accessible.

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<sup>1</sup> compare: Merna and Al-Thani, 2008; Dempster and Moffat, 2002; Kuritzkes, 2002; Rowe, 1977; Rescher, 1983

<sup>2</sup> The modernisation of the public accounting system of German states respectively municipalities from cash accounting to accrual based systems proceed in the different states in different periods and requirements concerning multitudes standards and options. There is no harmonized or comparable reporting or accounting system in Germany (Lasar, 2010; Mühlkamp and Glöckner, 2009).

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