

# **Incentive Regulation's Effects on Electricity Companies' Management, Processes, and Organisation**

*Evidence from the German Electricity Sector*

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## Introduction

- The German Electricity Market experienced the implementation of a revenue cap regulation in 2009
- Change in regulation leads to changes in the regulated companies
- Electricity companies have been in a process of adaption
- Management systems, processes and organisational structures have been restructured
- Uncertainty among electricity companies might play a decisive role



## Some other studies

- Gottschalk et al. (2007) predicted an increasing importance of regulation management and regulatory management accounting in the ESCs as well as a reorientation of investment behaviour and corporate strategy
- Ballwieser (2008) criticised the absence of investment incentives because of asymmetrical risks (for foundation see Pedell (2006))
- Picot (2009) argued that regulated companies tend to optimize their management processes and organizational structure within the bounds of regulation very fast
- A study by WIK (2010) showed, that ARegV ensures the economic maintenance of network operation and provides opportunities of replacement investments



## Focused elements

We have concentrated our research on the following elements:

- Uncertainty, investment behaviour, and corporate strategy
- Changes in corporate processes and functions within the organisation
- Changes in reporting
- Effects on management objectives and internal incentives

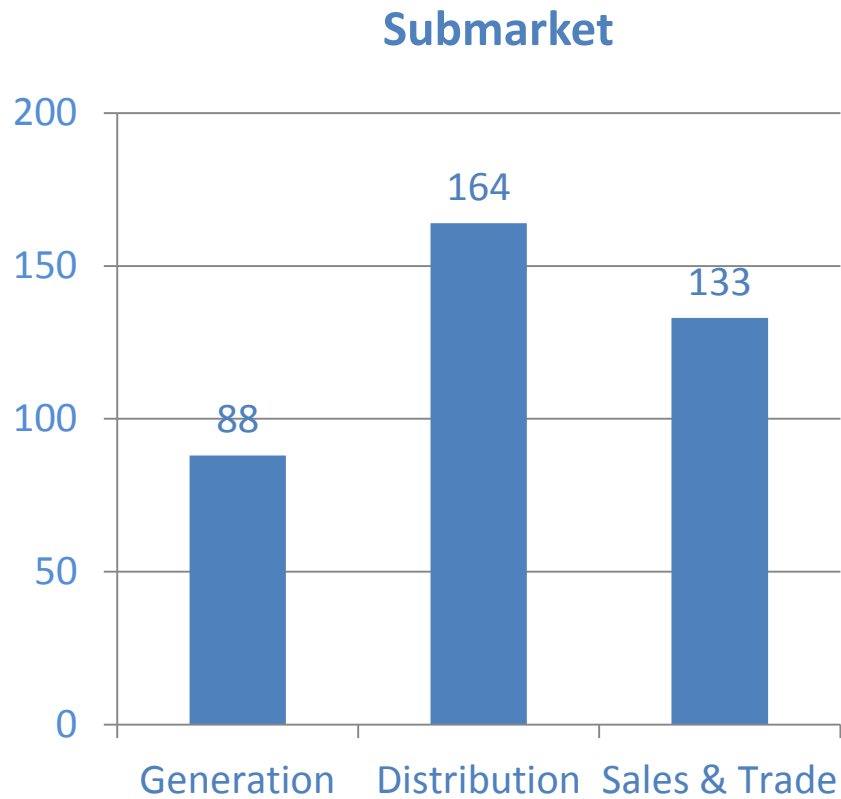


## Data and Method

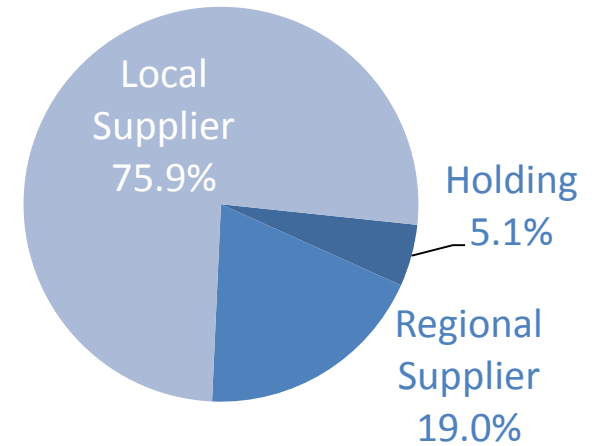
- The survey, in the form of a questionnaire, was conducted as a field inquiry and sent by mail to the electricity companies, especially to the CEOs
- We received 189 responses (response rate of 17.9 percent)
- Our sample covers a wide range of electricity companies
- Most of the respondents were allocated in two or more of the sub-segments
- We used a Chi-Square-Test to ensure representativeness



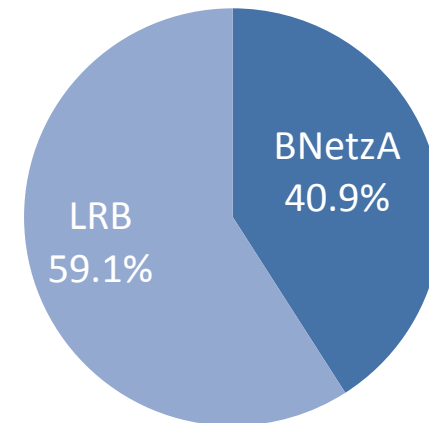
## Basic data of respondents



## Company Type

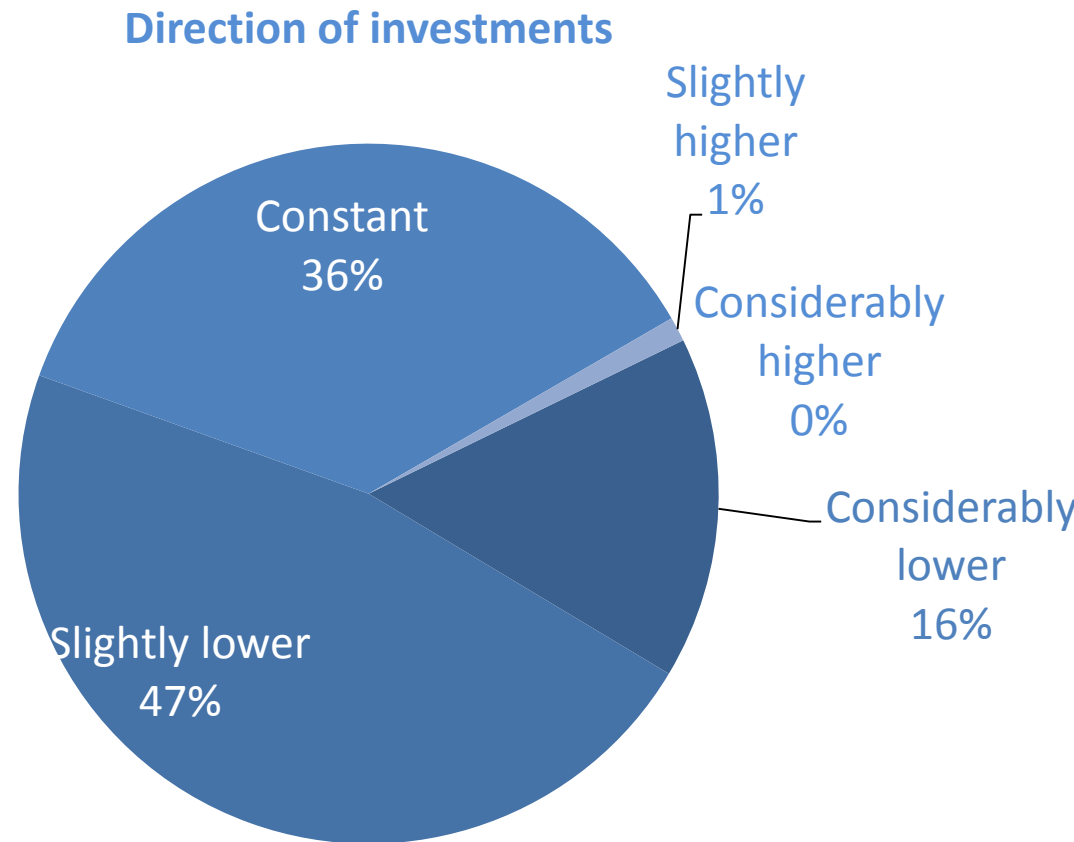


## Responsible regulatory authority



## Uncertainty, investment behaviour, and corporate strategy

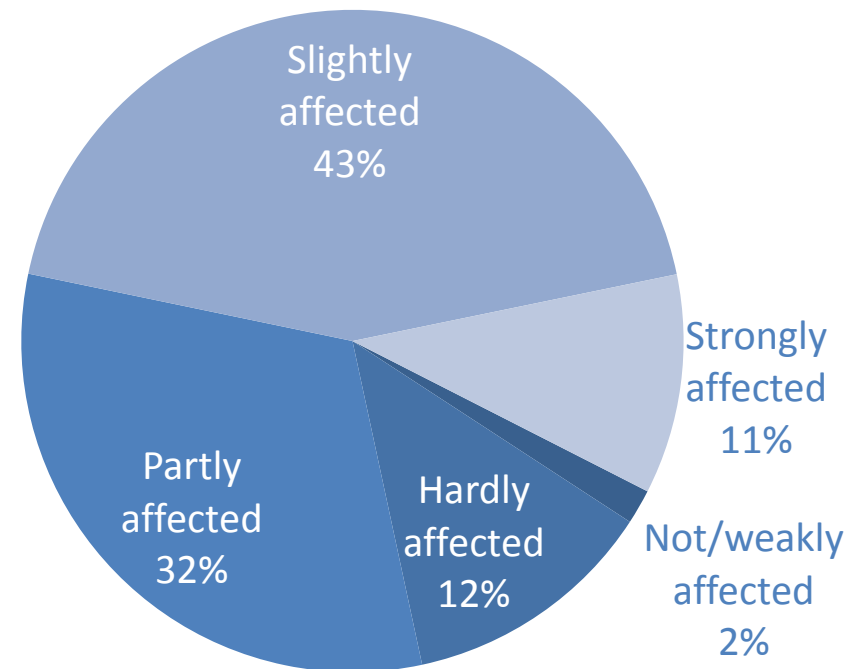
- The perceived uncertainty is essential for the corporates' investment behaviour
- We observed a strong trend towards lower investments in the German electricity distribution subsegment
- Only 1% of the respondents tend to increase their investments



## Uncertainty, investment behaviour, and corporate strategy

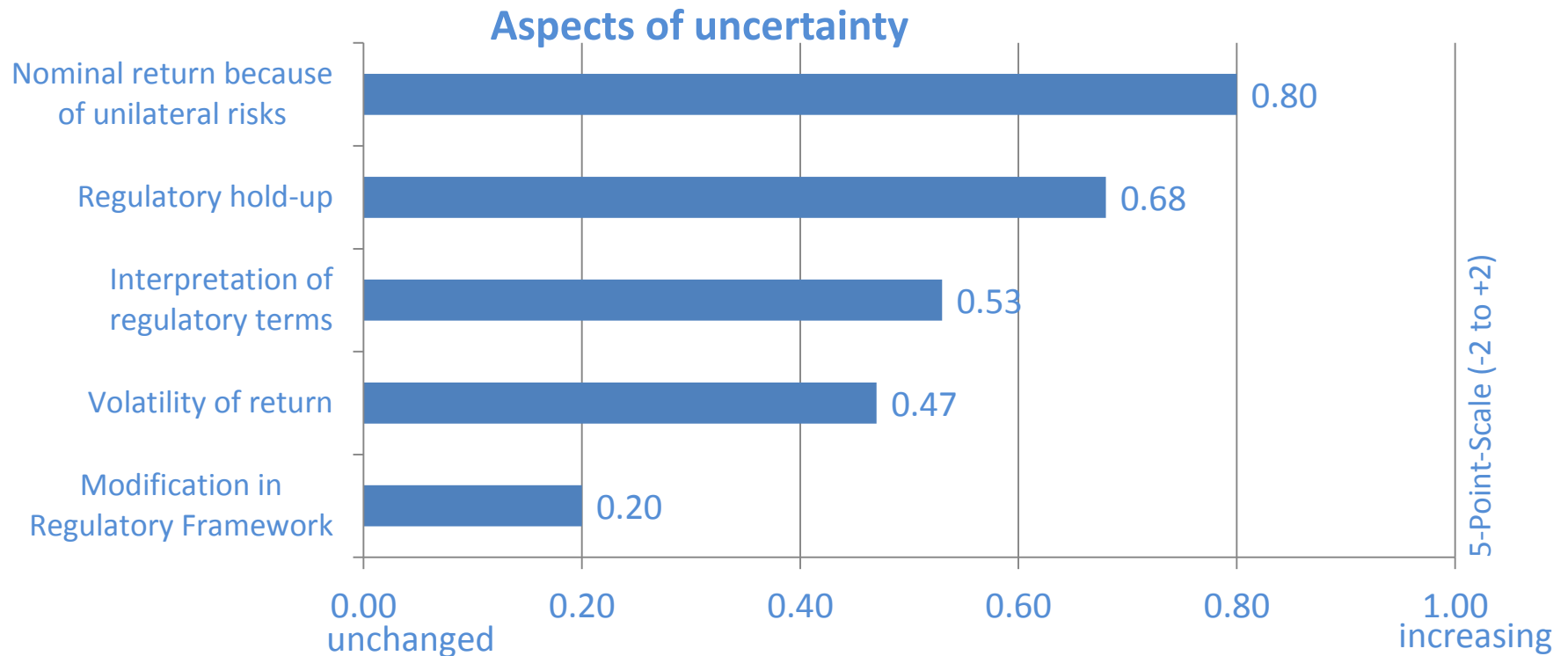
- The new regulation influenced corporate strategy significantly
- We observed, that more than 54% of the electricity companies had adapted strategy because of the new regulatory system

### Regulation's influence on strategy





## Uncertainty, investment behaviour, and corporate strategy



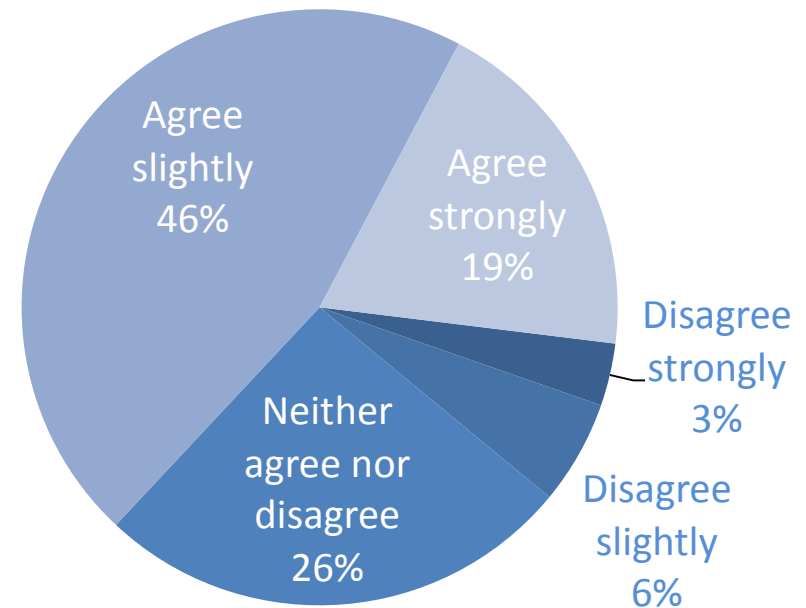
➤ Aspects of uncertainty and risks are weighted differently



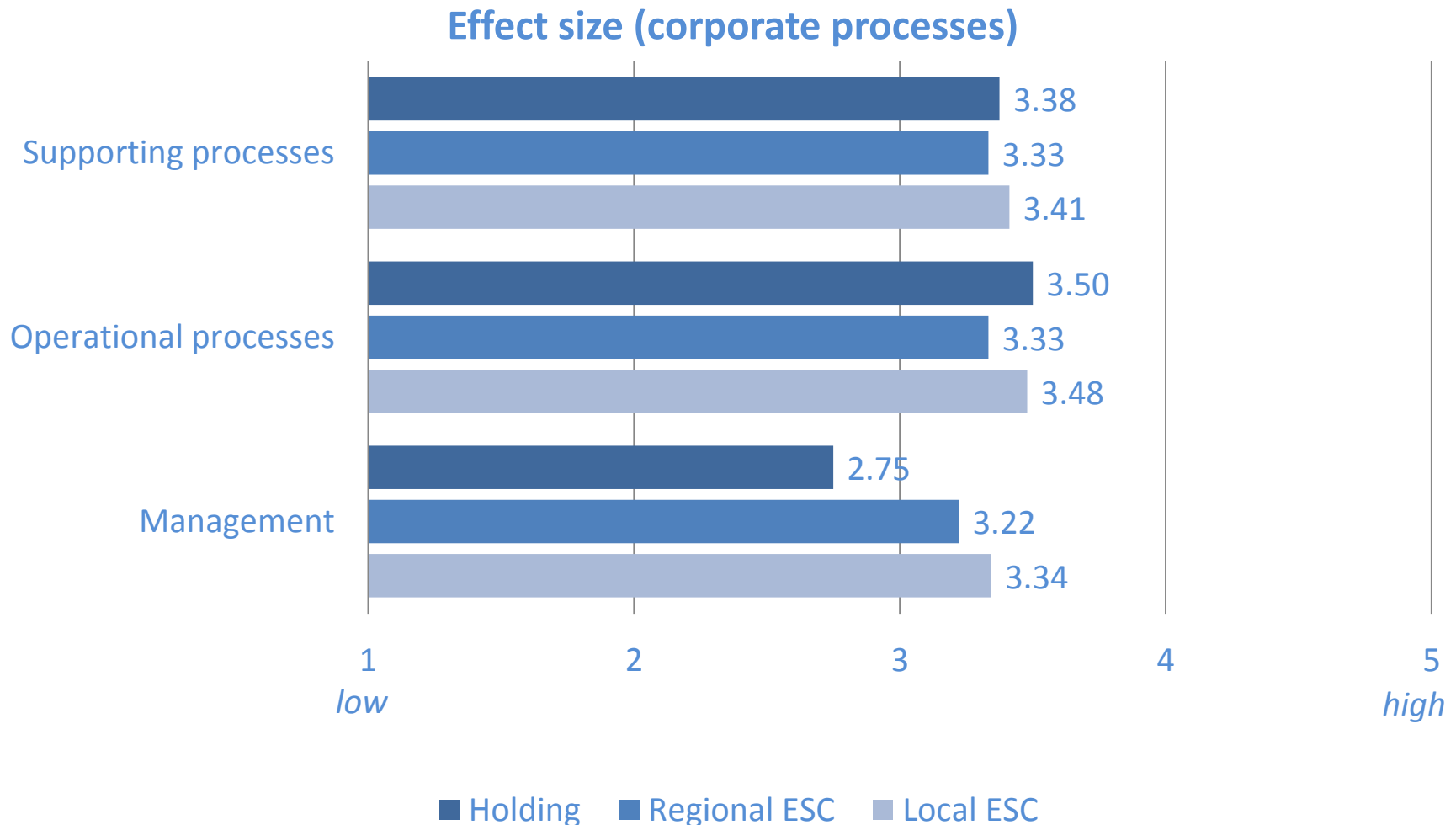
## Changes in corporate processes and functions within the organisation

- The new regulation is a trigger for intra-corporate change
- We analyzed that change by focusing processes and functions
- In Comparison with core and support processes, management is hardly concerned, particularly with regard to holding companies
- Business areas such as management accounting, budgeting, operations, IT, and risk management are distinctly affected

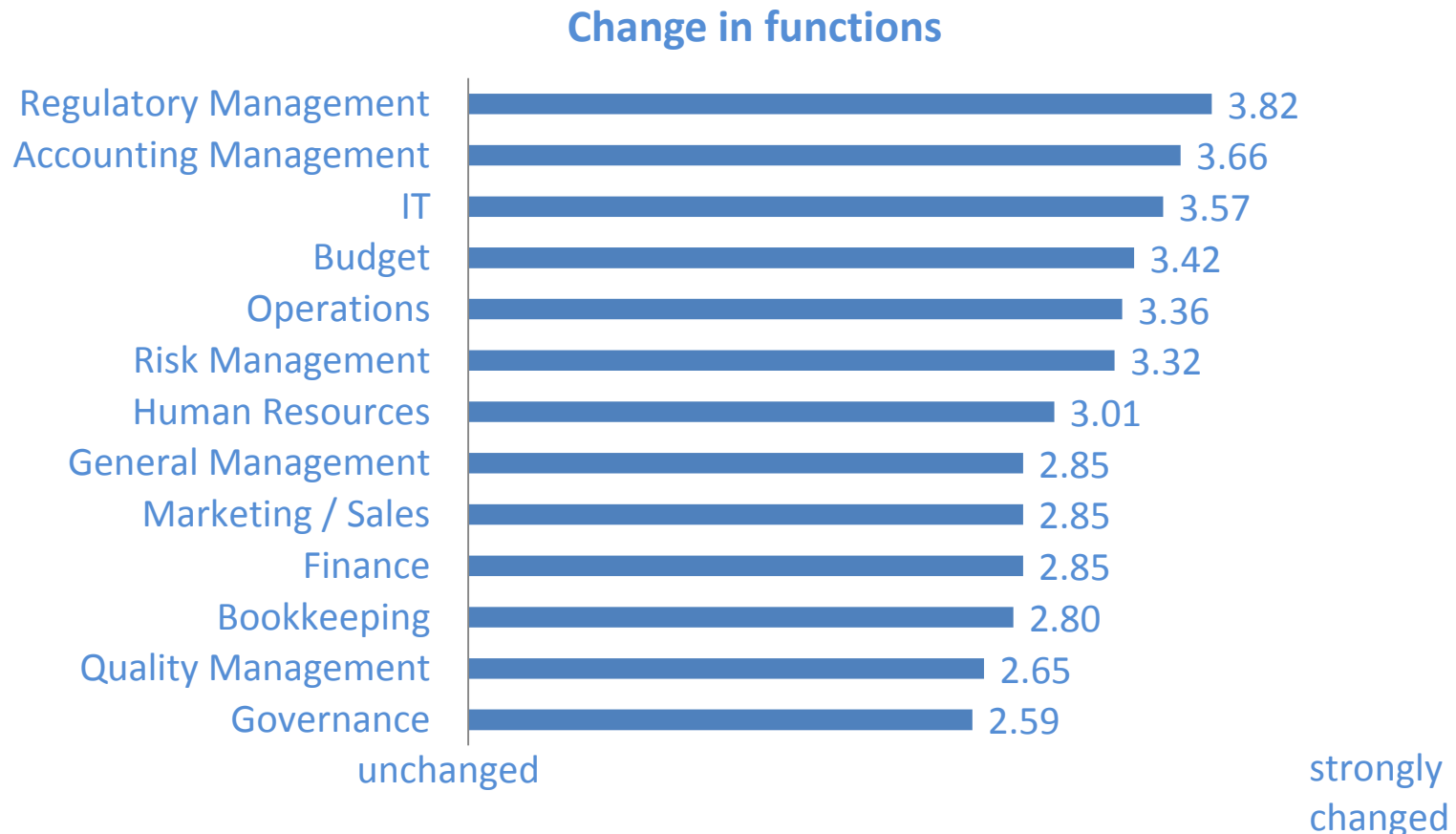
### "Incentive regulation is a trigger for change in my company"



## Changes in corporate processes and functions within the organisation



## Changes in corporate processes and functions within the organisation



- We observed an increasing importance of regulation management, management accounting and IT

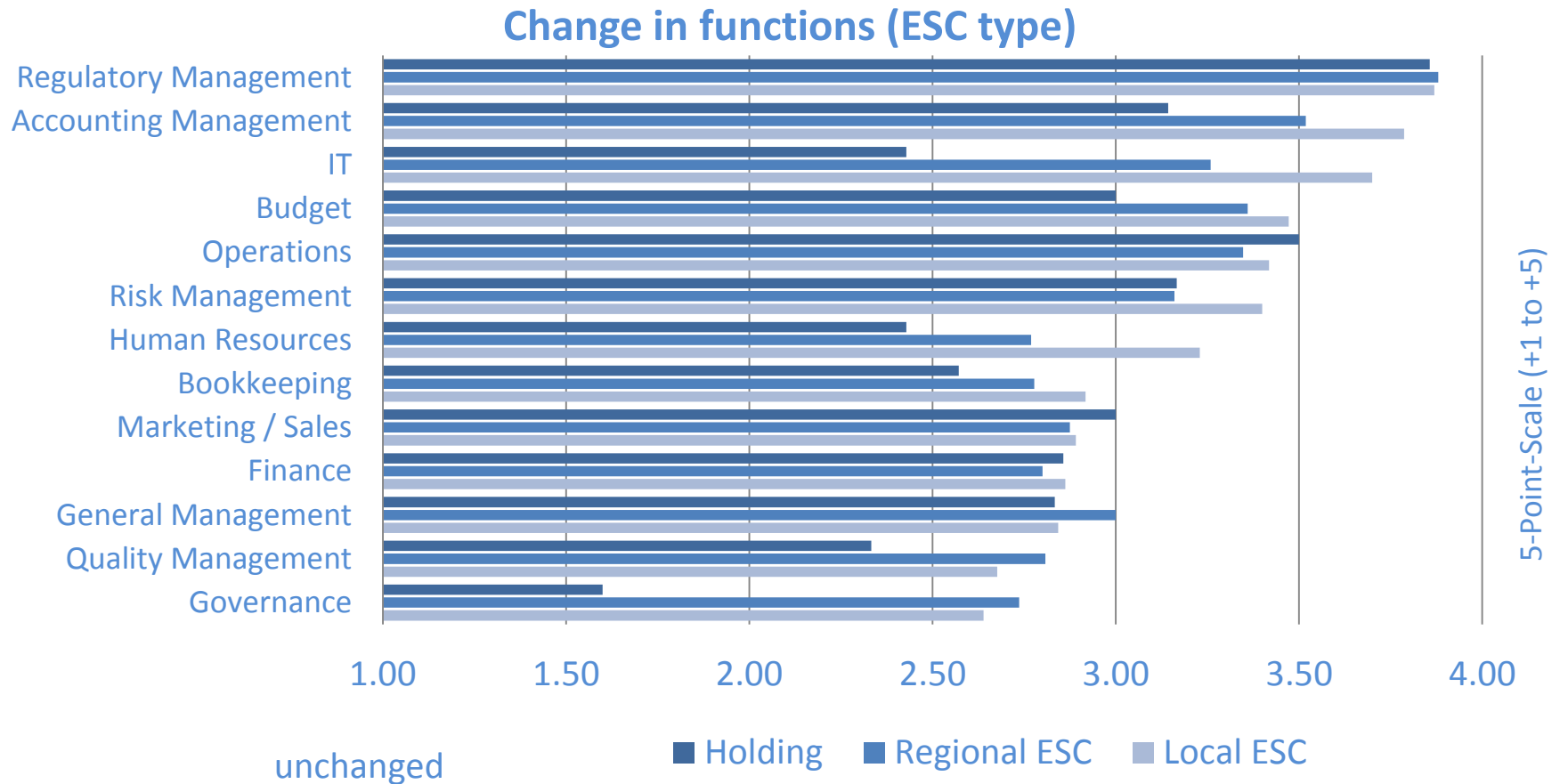


## Changes in corporate processes and functions within the organisation

- According to the size of the electricity companies, the impact of incentive regulation increases depending on the enterprise size
- That applies to the areas of management accounting, human resource management and IT
- That effect could be explained by the better planning of the mid-caps and large-caps, which could have made any necessary adjustments earlier.



## Changes in corporate processes and functions within the organisation



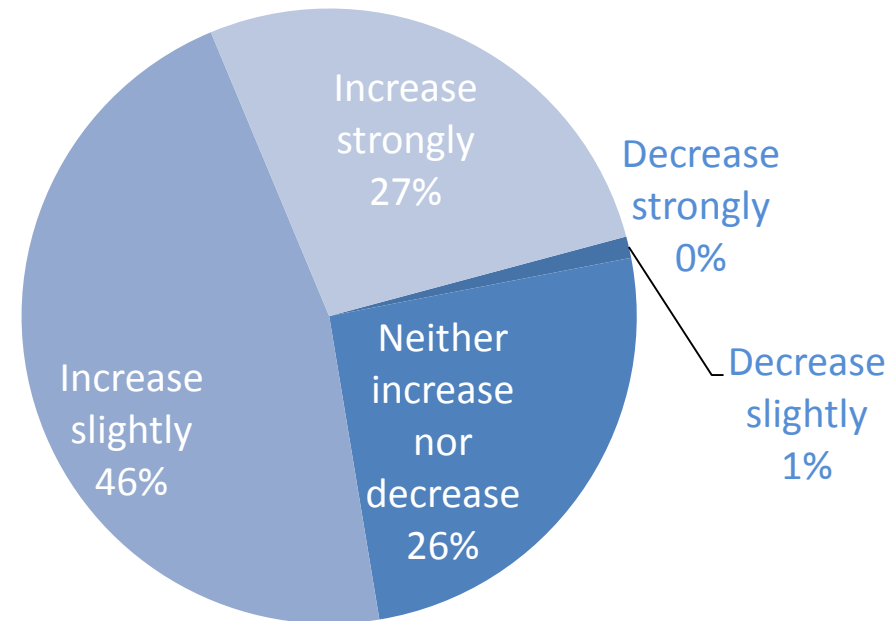
➤ Local and regional ESC are affected stronger than holding companies



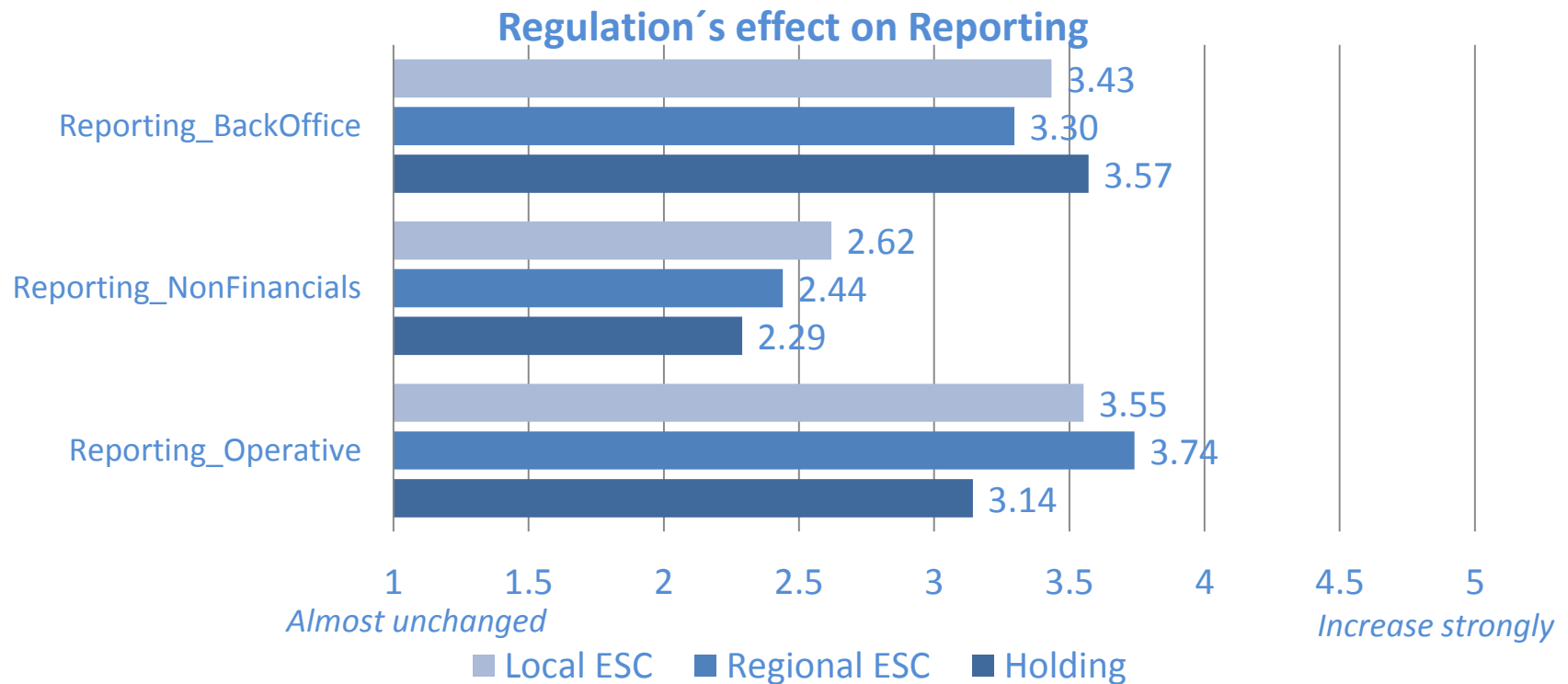
## Changes in reporting

- The scale of reports increased because of the regulatory change in more than 73% of the ESCs
- Regional and local ESCs are affected stronger than the Holding ESCs.

Change in reporting caused by regulation



## Changes in reporting



- Reporting increased particularly in financial ratios
- Non-financial ratios could be neglected

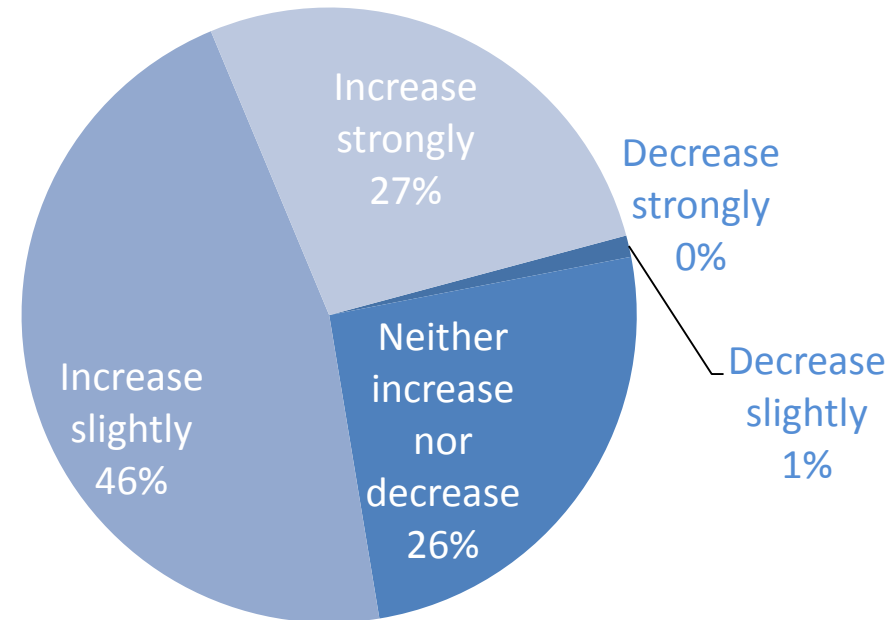




## Effects on management objectives and internal incentives

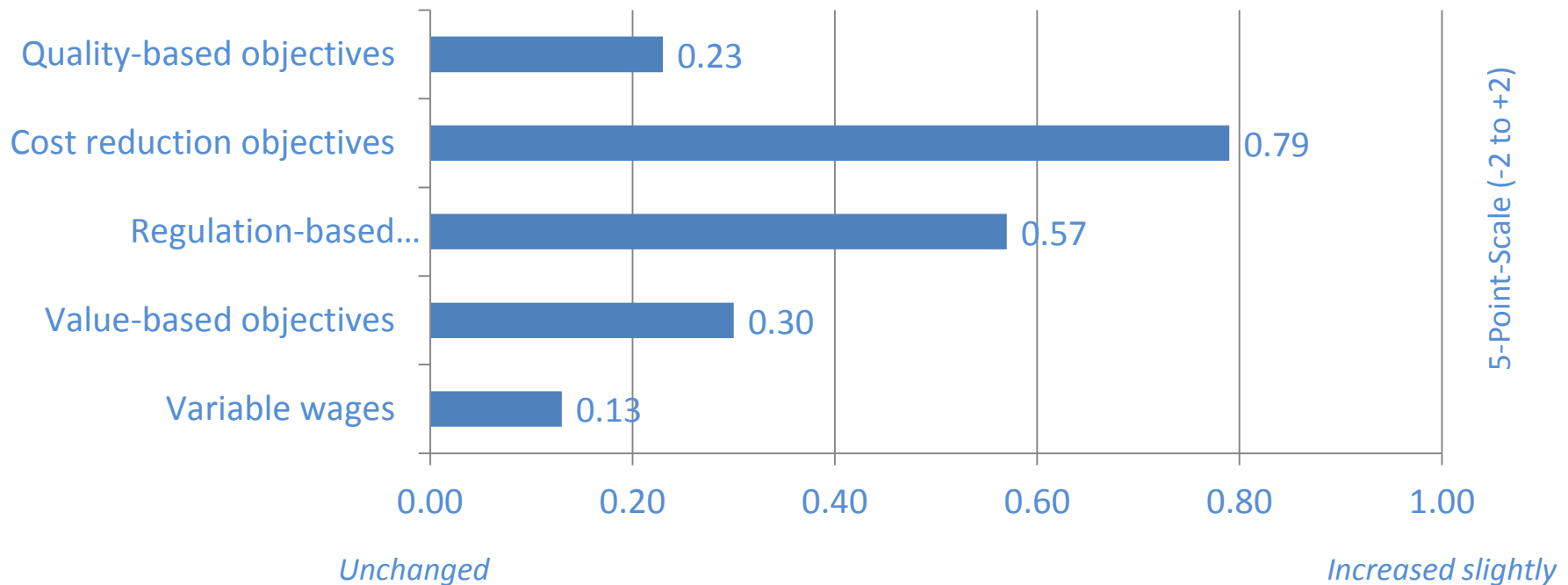
- Incentive regulation's effect on the internal incentive is apparently low
- Cost reduction objectives gain in importance
- According to company size, holding ESC attach importance to quality objectives
- Local ESCs focus on regulation dependent objectives

Change in reporting caused by regulation



## Effects on management objectives and internal incentives

### Regulation's effect on internal incentive systems and objectives



- Cost reduction and regulation-based objectives gain in importance



## Conclusions

We observed

- That the majority of the electricity company is affected by in-Company change caused by incentive regulation;
- That uncertainty caused by regulation increases and leads to significant changes in the ESCs' investment behaviour;
- Business areas such as management accounting, budgeting, operations, IT, and risk management are distinctly affected by regulation;
- Reporting increased - particularly in financial ratios - and affects regional and local ESCs stronger than the Holding ESCs;
- Regulation's effect on the internal incentive system is quite moderate and focuses on cost reduction objectives.



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Our complete study is available on our homepage:

[www.bwi.uni-stuttgart.de/index.php?id=166](http://www.bwi.uni-stuttgart.de/index.php?id=166)

