

# Berichterstattung zu den Sustainable Development Goals (SDGs) – Interne Anreize versus externer Pressure



Katrin Hummel, Universität Zürich & WU Wien

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1. Motivation
2. Sustainable Development Goals
3. Theory, Literature and Hypotheses
4. Research Design
5. Findings
6. Conclusion

# Motivation



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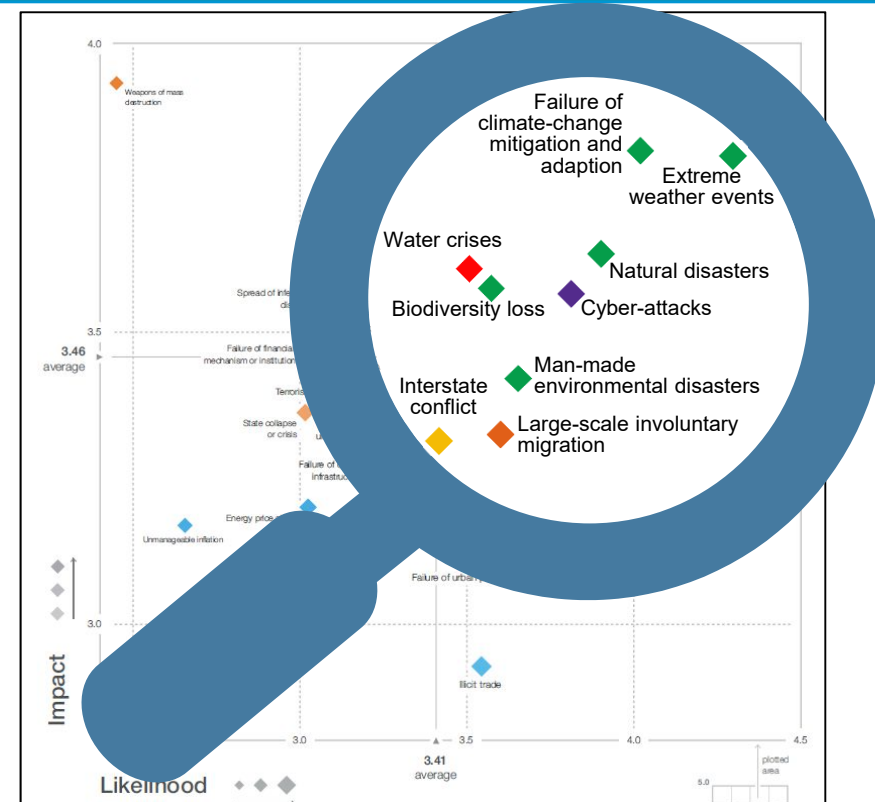
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## Grand societal challenges

- WEF Global Risk Report 2019
  - Risks with a high likelihood and high impact:
    - Failure of climate-change mitigation and adaption
    - Extreme weather events
    - Large-scale involuntary migration
    - Etc.

## ... call for joint action

- UN Resoulution «Transforming our world: the 2030 Agenda for Sustainable Development»
- 17 global goals
- Achievement until 2030



Source: WEF Global Risk Report 2019

JUNE 3RD, 2019

## Implications for business:



Regulation



Legitimacy and Reputation

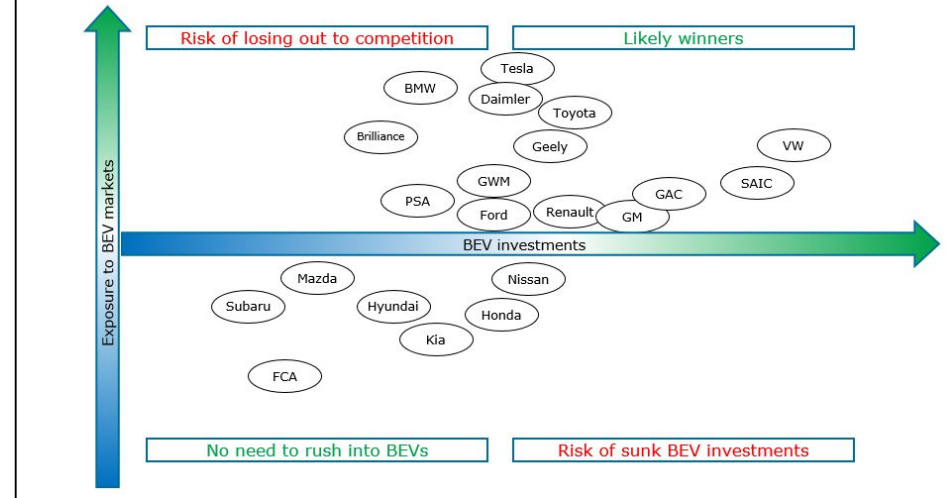


Risk Management



New Opportunities

Figure 1: Which OEM is the best positioned to win, and at which risk?



Source: UBS Global Research (2019)



## Reporting on the Sustainable Development Goals (SDGs)

- Ban Ki-Moon: «*Business is a vital partner in achieving the Sustainable Development Goals. Companies can contribute through their core activities, and we ask companies everywhere to assess their impact, set ambitious goals and communicate transparently about the results.*» (SDG Compass)
- Descriptive evidence is needed (Gow et al., 2016)



## Objective of this study

- Early evidence on SDG reporting among European firms
- What are the driving forces behind SDG disclosure?
  - „Internal“ firm-specific factors
  - „External“ institutional factors
- Are there differences in these driving forces compared to „traditional“ non-financial disclosure?

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# Sustainable Development Goals



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**September, 2015**

2030 Agenda for  
Sustainable  
Development

**September, 2010**

Global action plan

**September, 2000**

United Nations  
Millennium Declaration

**September, 2013**

Renewal of  
commitment

**2015, 2017, 2018**

SDG Compass and  
Guidelines for  
Reporting

**2000** Millenium Development Goals (MDGs)

**2015**

Sustainable Development Goals (MDGs)

**2030**

- Eight Millenium Development Goals
- 18 targets
- Top-down approach
- Criticism of lack of legitimacy

- 17 goals and 169 targets
- Bottom-up approach involving governments, international institutions, civil society, business and the academic community
- Explicit call for the contribution of private business

# Sustainable Development Goals (cont'd)



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# Sustainable Development Goals (cont'd)



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12.1 ...

**12.2 By 2030, achieve sustainable management and efficient use of natural resources**

**12.3 By 2030, halve per capita global food waste at the retail and consumer level, and reduce food losses along production and supply chains including post-harvest losses**

**12.4 By 2020, achieve environmentally sound management of chemicals and all wastes throughout their life cycle in accordance with agreed international frameworks and significantly reduce their release to air, water and soil to minimize their adverse impacts on human health and the environment**

**12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling, and reuse**

12.6 ...

12.7 ....

12.8 ...

12.a ...

12.b ...

12.c ...

**6** CLEAN WATER  
AND SANITATION



**12** RESPONSIBLE  
CONSUMPTION  
AND PRODUCTION



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## Traditional theories to explain voluntary non-financial disclosure



- Voluntary disclosure theory (Verrecchia, 1983, 2001)
- Legitimacy theory and stakeholder theory (Suchman, 1995; Freeman, 1984)
- Institutional environment (Ball et al., 2000)

## Scarce empirical evidence



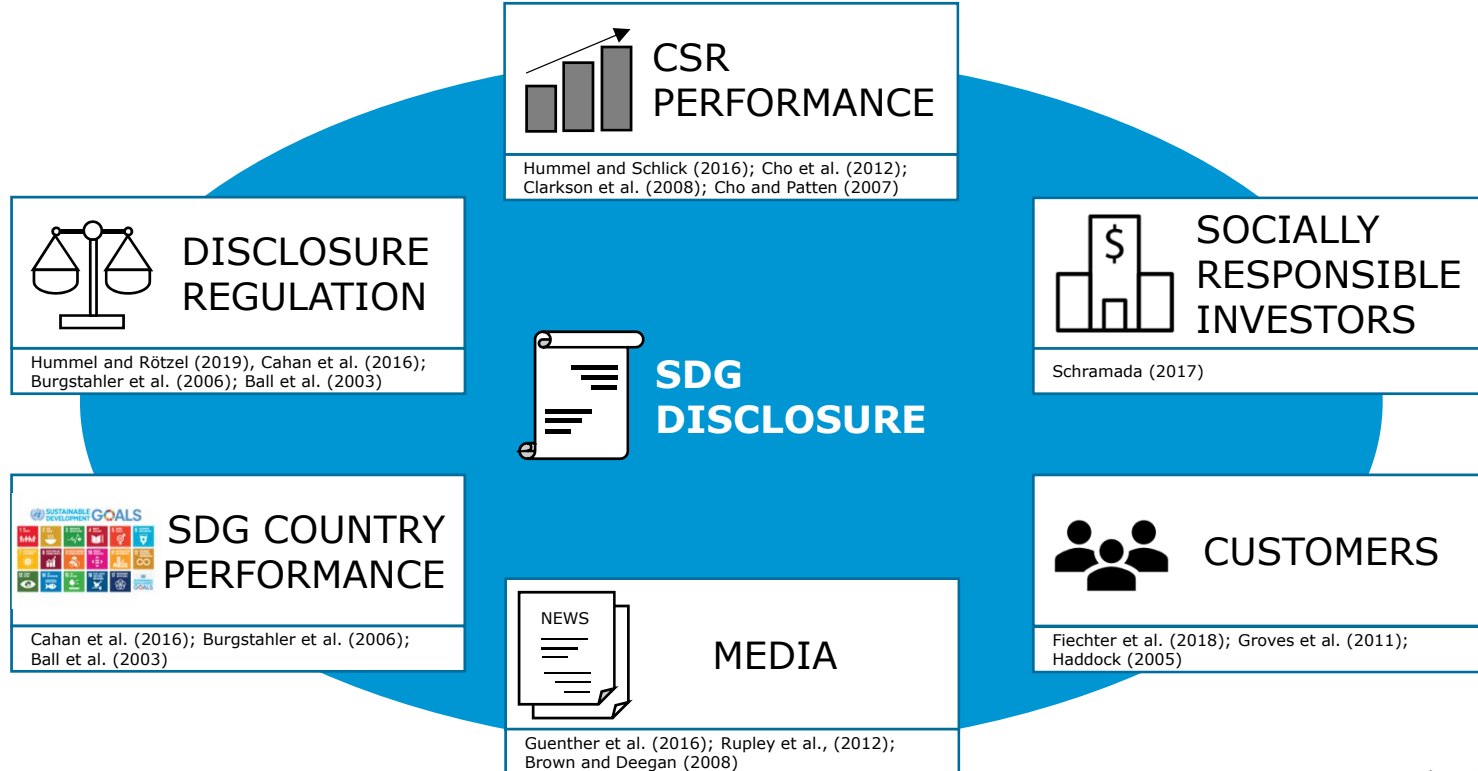
- Practitioner studies (KPMG, 2018; PWC, 2017)
- Bebbington and Unerman (2018, AAAJ)
- Several calls for research on SDG disclosure (e.g., Witte and Dilyard, 2017, Special issue call for papers from AAAJ 2018)

# Theory, Literature and Hypotheses (cont'd)



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## Sample

- Firms listed in the Stoxx Europe-600
- Annual reports from 2015-2017

## Empirical model

$$\text{DISC\_SDG}_{it} = \beta_0 + \beta_1 \text{CSR\_PERF}_{it} + \beta_2 \text{DJSI}_{it} + \beta_3 \text{MEDIA}_{it} + \beta_4 \text{IND\_B2C}_i \\ + \beta_5 \text{COUNTRY\_SDG}_{it} + \beta_6 \text{CSR\_REG}_{it} + \text{CONTROLS}_{it}$$

## Variables



## Controls

Firm size, RoA, Leverage,  
Industry, Year



## SDG\_Binary

- Textual analysis
- 0/1
- Reference of the SDGs
- Search for:
  - SDG
  - Global goal
  - Sustainable development goal

Loughran et al. (2009), Pencle and Malaescu (2016)

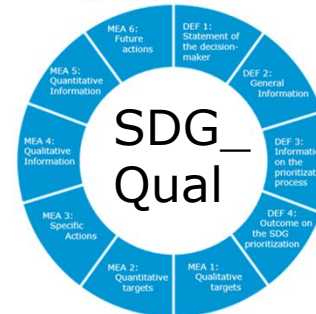
## SDG\_Text

- Textual analysis
- 0-1
- Similarity with the SDG topics:
  - Search terms
  - 20-word windows around search term
  - Aggregate to a dictionary

Hoberg/Maksimovic (2015); Mittelbach-Hörmanseder et al. (2018); Hummel and Rötzel (2019)

## SDG\_Qual

- Manual assessment
- 0-10



Cho et al. (2012); Clarkson et al. (2008); Cho and Patten (2007)

## Benchmark

- Bloomberg ESG Disclosure Score (ESG\_Discl)
- 0-100

Ioannou and Serafeim (2017); Eccles et al. (2011)

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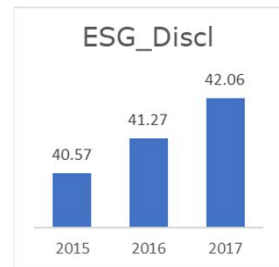
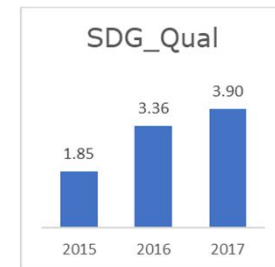
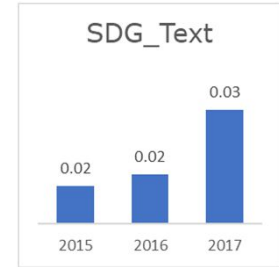
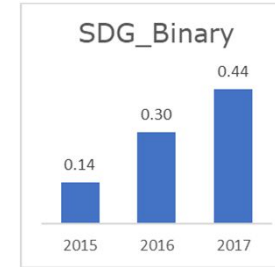


# Descriptive Findings



## Regression variables

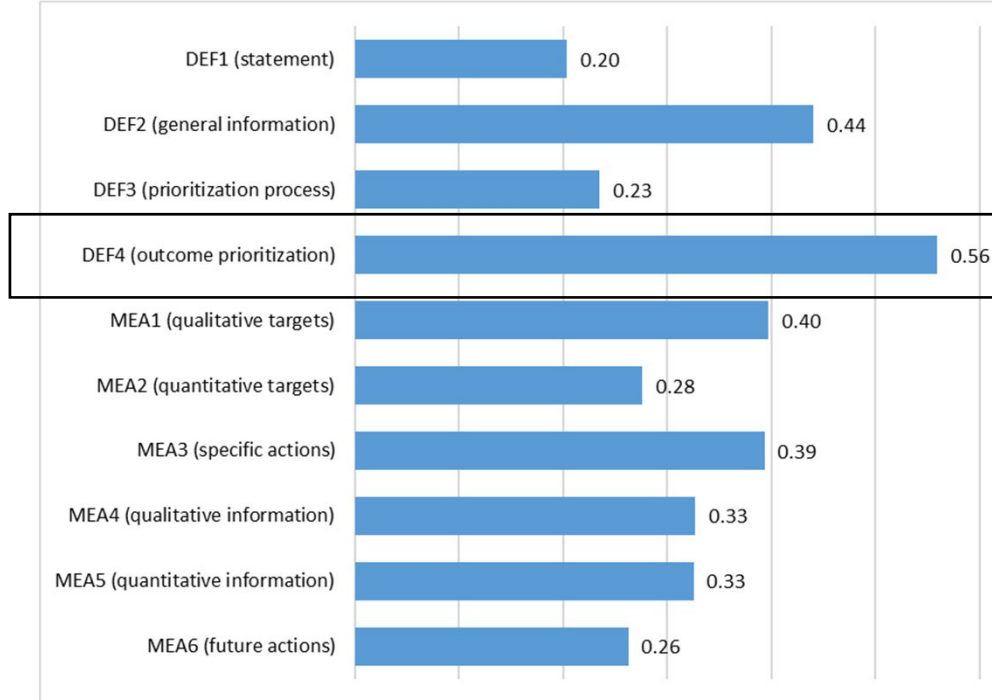
Variable	mean	median	sd	min	max	n
<i>Dependent Variables</i>						
SDG_Binary	0.2991	0.0000	0.4580	0.0000	1.0000	1538
SDG_Text	0.0249	0.0225	0.0118	0.0002	0.0999	1538
SDG_Qual	1.0296	0.0000	2.3706	0.0000	10.0000	1538
ESG_Disc	41.5258	42.9752	13.7309	3.5088	78.0702	1523
<i>Independent Variables</i>						
CSR_PERF	65.1280	66.8175	14.4950	9.3220	95.7762	1538
DJSI	0.2484	0.0000	0.4322	0.0000	1.0000	1538
IND_B2C	0.4681	0.0000	0.4991	0.0000	1.0000	1538
MEDIA	43.1032	56.0000	23.1318	0.0868	72.0588	1538
COUNTRY_SDG	79.9157	79.5000	2.7233	74.0000	85.0000	1538
CSR_REG	0.5182	1.0000	0.4998	0.0000	1.0000	1538
<i>Control Variables</i>						
FIRMSIZE	23.2367	22.9254	1.7438	17.6220	28.4428	1538
ROA	0.0739	0.0547	0.1487	-0.5978	2.8274	1538
LEVERAGE	0.2397	0.2251	0.1751	0.0000	1.6605	1538



# Descriptive Findings (cont'd)



## SDG\_Qual by item (n=481):



Number of SDGs  
prioritized:

Overall (n=481):  
Mean = 4.07

Of DEF4=1 (n=269):  
Mean = 7.23

# Descriptive Findings (cont'd)



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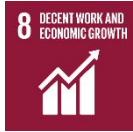
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## SDG Prioritization (n=481)

Overall:



Climate  
action



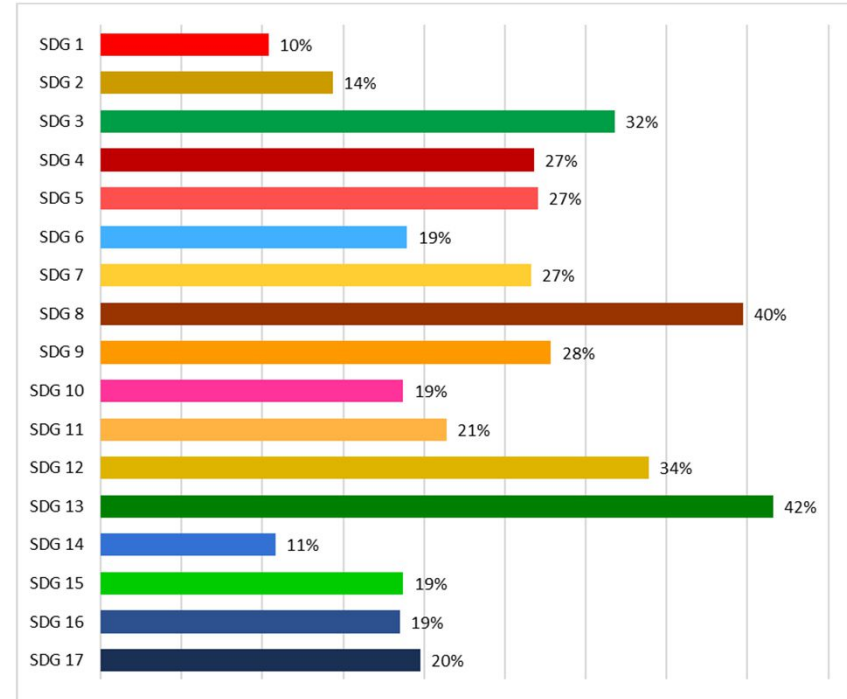
Decent  
work



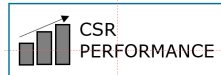
Responsible  
consumption



Good  
health



## Differences in SDG disclosure



	CSR_PERF		COUNTRY_SDG		CSR_REG	
	low	high	low	high	no	yes
SDG_Binary	0.1847	0.4133***	0.2528	0.3497***	0.1876	0.4028***
SDG_Text	0.02152	0.02817***	0.0228	0.0271***	0.0223	0.0272***
SDG_Qual	0.6196	1.4395***	0.8225	1.2558***	0.5378	1.4868***
ESG_Discl	34.7479	48.2240***	39.9826	43.2066***	39.9724	42.9634***

# Regression Results

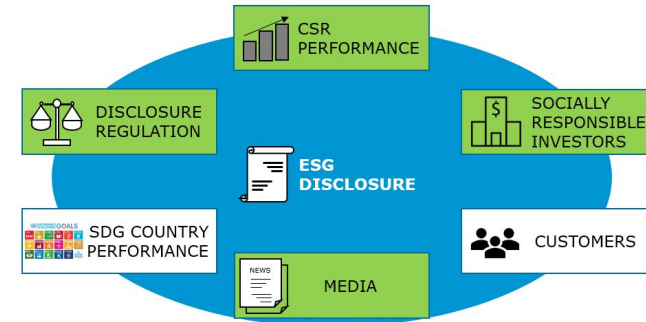
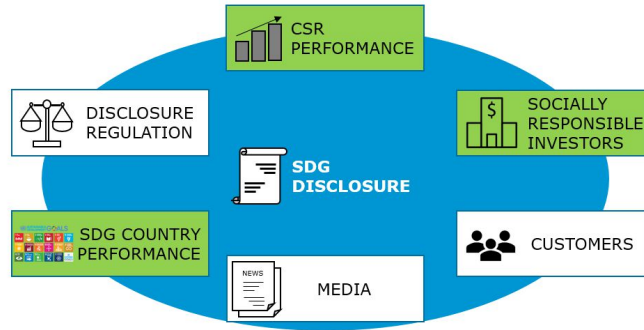


	(1) SDG_Binary	(2) SDG_Text	(3) SDG_Qual	(4) ESG_Disc	(1) – (4) t-statistics
CSR_PERF	0.0037*** (3.8128)	0.0001*** (4.9004)	0.0126** (2.5118)	0.3940*** (12.4175)	-8.76***
DJSI	0.1537*** (4.2724)	0.0039*** (3.7827)	0.9099*** (3.8930)	4.3347*** (5.0765)	0.26
IND_B2C	-0.0044 (-0.1035)	-0.0007 (-0.5339)	0.1016 (0.4201)	1.4231 (1.1982)	-1.32
MEDIA	0.0001 (0.2390)	-0.0000 (-0.0531)	0.0023 (0.7624)	0.0236* (1.9032)	-1.08
COUNTRY_SDG	0.0184*** (3.1936)	0.0001 (0.5740)	0.0586* (1.7241)	-0.1201 (-0.7020)	3.93***
CSR_REG	0.0381 (0.9694)	0.0061*** (5.8566)	0.1168 (0.6902)	3.7431*** (3.6781)	-2.06**
CLUSTER	FIRM	FIRM	FIRM	FIRM	
CONTROLS	INCLUDED	INCLUDED	INCLUDED	INCLUDED	
YEAR FE	INCLUDED	INCLUDED	INCLUDED	INCLUDED	
INDUSTRY FE	INCLUDED	INCLUDED	INCLUDED	INCLUDED	
Observations	1,538	1,538	1,538	1,523	
R-squared	0.2272	0.2799	0.1624	0.5502	
F	23.62	12.36	8.97	43.40	

# Regression Results (cont'd)



## Summary of the results



## Robustness

- Other proxies
- Subsample of SDG reporters

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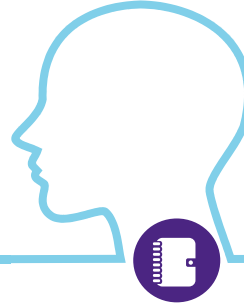
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# Conclusion



## Summary

- Main findings:
  - CSR\_PERF
  - DJSI
  - COUNTRY\_SDG
- Compared to traditional non-financial disclosure:
  - CSR\_REG ↓
  - COUNTRY\_SDG ↑



## Limitations

- Association study
- Only 3 reporting years
- Novel measurement approach



## Outlook

- Consequences of SDG disclosure
  - Economic consequences
  - “Real” effects



# Thank you for your attention



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Dr. Katrin Hummel  
Oberassistentin University of Zurich  
Visiting Professor WU Vienna

You can access my latest papers on:  
<http://ssrn.com/author=1678086>

# References



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