

Papenfuß, Ulf; Wagner-Krechlok, Kristin

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## ORIGINAL ARTICLE

# The diffusion of governance standards in public corporate governance codes: Measurement framework and three countries comparison

Ulf Papenfuß  | Kristin Wagner-Krechlok

Chair of Public Management & Public Policy,  
Zeppelin University, Friedrichshafen, Germany

**Correspondence**

Ulf Papenfuß, Chair of Public Management &  
Public Policy, Zeppelin University, Am  
Seemooser Horn 20, D - 88045  
Friedrichshafen, Germany.  
Email: [ulf.papenfuss@zu.de](mailto:ulf.papenfuss@zu.de) and [puma@zu.de](mailto:puma@zu.de)

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**Abstract**

**Research Question/Issue:** This study analyzes the diffusion of internationally recognized governance standards in public corporate governance codes. Local, state, and federal governments issue very different codes for their state-owned enterprises, which reflect governments' understanding of corporate governance.

**Research Findings/Insights:** Developing and applying a comprehensive measurement framework with 150 criteria to 60 public corporate governance codes in Austria, Germany, and Switzerland, the study shows that the diffusion varies considerably between codes and regulatory fields (e.g., directors, auditing). Governments react very differently to similar governance challenges and show varying degrees of willingness to regulate the corporate governance of their state-owned enterprises.

**Theoretical/Academic Implications:** This study enhances the understanding of the diffusion of governance standards in the under-researched context of government ownership. The findings imply the need for comprehensive measurement approaches to gain a nuanced theoretical understanding on the diffusion and underlying mechanisms. Future research could use the measurement framework or single regulatory fields to generate data to investigate different theoretical questions regarding many areas of corporate governance. Derived from the findings and neo-institutional theory, the study develops propositions about potential drivers of diffusion differences, offering avenues for advancing future theory-building.

**Practitioner/Policy Implications:** This study develops a comprehensive measurement framework to quantify the diffusion of governance standards in public corporate governance codes in international comparisons. Governments, standard-setters, and other actors (e.g., directors, auditors) could use it for condensed overviews, implementing or revising codes, and reflecting on governance practices. Overall, data show a severe need to improve the quality of public corporate governance codes.

**KEYWORDS**

corporate governance, corporate governance codes, government ownership, neo-institutional theory, state-owned enterprises

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## 1 | INTRODUCTION

The devolution of many public services to state-owned enterprises (SOEs) at all government levels and the large number of SOEs have made their corporate governance a crucial issue (Bruton et al., 2015; Cuomo et al., 2016; Musacchio et al., 2015; OECD, 2015). SOEs are enterprises that are under the control of local, state, or federal governments, either by majority ownership of one or more governments or otherwise by exercising an equivalent degree of control (European Commission, 2016; OECD, 2015).

While the performance and quality of public services for citizens can improve from service provision by SOEs, the autonomy and complex ownership structures of SOEs cause far-reaching challenges related to their corporate governance (Bruton et al., 2015; Klausen & Winsvold, 2021; OECD, 2015; van Genugten et al., 2022; Voorn et al., 2019). It is therefore crucial to identify governance mechanisms that can enhance responsible and sustainable corporate governance of SOEs (Klausen & Winsvold, 2021; Leixnering et al., 2021; OECD, 2015; van Genugten et al., 2022; Whincop, 2016).

Literature stresses the need for—and potential of—corporate governance codes as crucial instruments for corporate governance (Aguilera & Cuervo-Cazurra, 2009; Cuomo et al., 2016; Zattoni & Cuomo, 2008). Corporate governance codes are also demanded for SOEs and have been issued by governments worldwide (Cuomo et al., 2016; OECD, 2015; Papenfuß, 2020; World Bank, 2014, 2020). These so-called public corporate governance codes (PCGCs) prescribe standards and principles for the supervision and management of SOEs and contain recognized standards of responsible governance. Literature has stressed the potential of PCGCs to contribute to better corporate governance of SOEs and to the achievement of various political objectives, such as sustainability, equality, and accountability (Expert Commission G-PCGM, 2022; Mensi-Klarbach et al., 2021; OECD, 2015; Papenfuß, 2022; Papenfuß & Schmidt, 2021; World Bank, 2020).

In the literature, there is a debate on the extent to which corporate governance standards and practices are diffused worldwide (Aguilera & Cuervo-Cazurra, 2004, 2009; Cuomo et al., 2016; Haxhi & Van Ees, 2010; Zattoni et al., 2020; Zattoni & Cuomo, 2008). Researchers have also explored the diffusion of governance standards in corporate governance codes for private sector companies (Cicon et al., 2012; Collier & Zaman, 2005; Haxhi & Aguilera, 2017; Terjesen et al., 2015).

However, there remain three gaps in the literature that this study addresses. First, literature highlights a gap regarding the diffusion of governance standards in general and their diffusion in corporate governance codes in particular (Cicon et al., 2012; Collier & Zaman, 2005; Haxhi & Aguilera, 2017; Terjesen et al., 2015). This gap limits scientific knowledge about how code issuers “substitute for (or have complementarities with) the weaknesses (strengths) in property rights, informational flows, and contractual efficiency and enforcement” (Kumar & Zattoni, 2019, p. 5). Therefore, researchers call for a comparative “empirical analysis of the CG [corporate

governance] codes adopted in different countries” (Haxhi & Aguilera, 2017, p. 263) and for developing “empirical granularity” (Kumar & Zattoni, 2019, p. 5) in this regard.

Second, there is a gap concerning the effects of code issuers on the diffusion of governance standards (Cicon et al., 2012; Haxhi & Aguilera, 2017). Therefore, researchers call for more research on how the characteristics of code issuers affect the content of corporate governance codes (Cicon et al., 2012; Haxhi & Aguilera, 2017; Haxhi & Van Ees, 2010).

Third, because there is currently no empirical study in this context, scientific knowledge about the diffusion of governance standards in the context of SOEs and the effect of local, state, and federal governments on the diffusion is very limited. This is an important gap because ownership influences both corporate governance regulation and practices and governments are important owners (Bernier et al., 2020; Borisova et al., 2019; Boyd & Solarino, 2016; Bruton et al., 2015; Connelly et al., 2010; Musacchio et al., 2015; Zattoni et al., 2020).

The research goal of this study is to assess to what extent internationally recognized governance standards diffuse in PCGCs of local, state, and federal governments in a cross-national comparison and derived from the findings, to develop propositions about potential drivers of diffusion differences to provide avenues for advancing future theory-building.

To achieve this goal, this study develops a comprehensive measurement framework with 150 criteria that enables the quantification of the diffusion of governance standards for SOEs in international comparisons. The measurement framework is used to assess all PCGCs currently issued by German-speaking local, state, and federal governments in Austria, Germany, and Switzerland.

The study makes the following contributions. First, it enhances the overall understanding of the diffusion of corporate governance standards (Aguilera & Cuervo-Cazurra, 2004; Cuomo et al., 2016; Zattoni et al., 2020) by providing new empirical insights on the diffusion in the under-researched context of government ownership. The findings show that the diffusion extent of governance standards strongly diverges between PCGCs of governments on different government levels and on the same government level. The results provide a helpful basis to open the relevant field of PCGCs for future research and invite corporate governance scholars to enhance the theoretical understanding of corporate governance codes and related issues through exploration and comparison of corporate governance codes in different ownership contexts.

Second, responding to calls in the literature to enhance the theoretical understanding of the effect of code issuers on the content of codes (Aguilera & Cuervo-Cazurra, 2009; Cuomo et al., 2016; Haxhi & Van Ees, 2010), the study develops propositions about potential drivers of differences in the diffusion of governance standards in PCGCs. The propositions are derived from the diffusion differences identified in this study and neo-institutional theory (Böhm et al., 2013; Haxhi & Van Ees, 2010; Judge et al., 2010). The study provides avenues for advancing future theory-building regarding a more nuanced theoretical understanding of coercive,

mimetic, and normative pressures and how they interact with code issuers' characteristics in different ownership contexts.

Third, the study addresses the need “to develop empirical granularity” (Kumar & Zattoni, 2019, p. 5) in the debate on diffusion by developing a comprehensive measurement framework of internationally recognized governance standards in PCGCs. The measurement framework helps build a nuanced understanding of the diffusion of governance standards for SOEs and can be used to generate data for various theoretical investigations. Studies on diffusion and the effects of corporate governance codes can make use of the measurement framework, calculating and using the scores for overall diffusion and also for diffusion in single regulatory fields (e.g., board, accounting, auditing) as statistical variables (Chen et al., 2007; Gompers et al., 2003; Larcker et al., 2007).

## 2 | BASIC CONCEPTS: THE RELEVANCE OF SOEs AND PCGCs

Worldwide, SOEs are crucial providers of public services, accounting for approximately 10% of the global gross domestic product (Bruton et al., 2015). They are most widespread at the local level and are important public employers (Bernier et al., 2020; Papenfuß & Schmidt, 2022; van Genugten et al., 2022). As providers of critical public infrastructure and services, SOEs should guarantee the security of supplies, especially in times of crisis. In far most cases, SOEs are not listed on the stock market (Andrews et al., 2020; Papenfuß & Schmidt, 2022). Therefore, they are often not subject to corporate governance codes for listed companies or to stock market pressure.

Like corporate governance codes for private sector companies (Aguilera & Cuervo-Cazurra, 2009; Cuomo et al., 2016; Zattoni & Cuomo, 2008), PCGCs play a special role in the corporate governance of SOEs (Expert Commission G-PCGM, 2022; OECD, 2015; Papenfuß & Schmidt, 2021; World Bank, 2020). In the literature, the term “public corporate governance” is used as a synonym for corporate governance of SOEs (Bernier et al., 2020; Expert Commission G-PCGM, 2022; Papenfuß, 2020). PCGCs are passed and enacted by governments (e.g., local councils, government cabinets, parliaments) after they are developed by government and public administration representatives, members of SOE boards, and further actors involved in the corporate governance of SOEs. PCGCs should concisely summarize the basic characteristics of the corporate governance system for SOEs and address frequent governance questions, ambiguities, or legal gaps (Expert Commission G-PCGM, 2022; Papenfuß, 2022).

Although there are many similarities between the corporate governance of private sector companies and SOEs, standard-setters emphasize the need for special corporate governance codes for SOEs that appropriately consider the context of government ownership (Expert Commission G-PCGM, 2022; OECD, 2015; World Bank, 2014). For instance, SOEs face distinct governance and accountability challenges that need to be addressed specifically (Bernier et al., 2020; Bruton et al., 2015; Expert Commission

G-PCGM, 2022; OECD, 2015; Papenfuß, 2020; van Genugten et al., 2022; World Bank, 2020). For example, the regulatory field of owner must be designed completely differently for SOEs than that of shareholders for listed private sector companies. Aspects of democratic legitimacy and processes of control of parliaments and public administration, which represent governments as owners of SOEs, must be taken into consideration when devising governance standards for SOEs. In numerous other regulatory fields, too, specific standards are required due to the constitutive public purpose of SOEs (Expert Commission G-PCGM, 2022; OECD, 2015; Papenfuß & Schmidt, 2021; World Bank, 2020). Regulatory fields are sections in a PCGC that contain governance standards concerning a certain topic, such as board, accounting, or auditing.

The comply-or-explain principle differentiates PCGCs from other regulatory instruments. Due to the comply-or-explain principle and the freedom of choice and flexibility it allows (Cuomo et al., 2016; Expert Commission G-PCGM, 2022; Papenfuß, 2020), PCGCs can formulate governance standards for SOEs that differ, for instance, in size, legal form, and so forth. The comply-or-explain principle expressly allows SOEs to diverge from regulations if required by the situation. A deviation is not regarded as a deficit but can be justified in terms of good corporate governance of SOEs. Deviations must however be disclosed and justified in a Declaration of Compliance (Expert Commission G-PCGM, 2022; Papenfuß, 2022). The comply-or-explain principle is used in many corporate governance codes for listed companies and is applied in many countries (Aguilera & Cuervo-Cazurra, 2004; Luo & Salterio, 2014; Seidl et al., 2013; Werder et al., 2005).

## 3 | RESEARCH METHODOLOGY

### 3.1 | Development of a measurement framework of internationally recognized governance standards in PCGCs

In response to the outlined research needs, the study develops a comprehensive measurement framework to assess the diffusion of governance standards in PCGCs (see Table 1). The measurement framework enables quantification of the diffusion of governance standards in PCGCs, containing 150 criteria that represent internationally recognized governance standards for SOEs derived from theory, scientific literature, and the publications of international standard-setters. This research approach aligns with other studies that evaluate corporate governance regimes (Chen et al., 2007; Gompers et al., 2003; Larcker et al., 2007).

There are several reasons why a comprehensive measurement framework particularly designed for PCGCs is useful. First, research currently lacks a methodological instrument that defines clearly codable criteria for governance standards in PCGCs. The OECD Guidelines cannot fulfill this function because they formulate broad principles rather than concrete regulatory standards (OECD, 2015). The criteria of the developed measurement framework, on the other

**TABLE 1** Measurement framework of internationally recognized governance standards in public corporate governance codes**I. Governments' role as owner and exercise of owner rights**

## Governments' role as owner

- 01 The public corporate governance code (hereafter referred to as *code*) states the legal requirements for ownership of an enterprise by the government.
- 02 The government shall review regularly if it complies with the legal requirements for ownership of an enterprise.
- 03 As owner, the government sets the object/purpose of the enterprise.
- 04 As owner, the government shall also define specific objectives for the enterprise.
- 05 Based on the objectives for the enterprise, the board shall set the corporate strategy and discuss its implementation regularly. (*Also counts: ... the executive directors shall set the corporate strategy, coordinate it, and discuss its implementation regularly with the directors.*)
- 06 The responsible political body (e.g., parliament, local council, etc.) shall be regularly informed about matters relevant to the political monitoring of the objectives for the enterprise.
- 07 The government publishes a shareholdings report, in which it reports on the issuance of Declarations of Compliance by the enterprises and its own compliance with recommendations addressed to the owners and makes it publicly available on the Internet. (*Also counts: The government publishes a shareholdings report and makes it publicly available on the Internet.*)
- 08 The responsible political body (e.g., parliament, local council, etc.) shall discuss the shareholdings report annually.

## Shareholders' meeting

- 09 The government exercises its rights as owner in the shareholders' meeting.
- 10 The code names the entity or function that represents the government in the shareholders' meeting.
- 11 The code states the decision-making rights of the shareholders' meeting.
- 12 The code states that members of the board must not decide on the board's discharge.

## Shareholdings management of the government

- 13 The government shall provide the entity responsible for shareholdings management (hereafter referred to as *shareholdings management*) with adequate human and material resources.
- 14 The code states at least one of the following tasks of the shareholdings management: (1) shareholdings administration; (2) shareholdings controlling; (3) mandate management; (4) support of decision-making bodies within government.
- 15 The shareholdings management shall carry out regular monitoring of the objectives for the enterprise.
- 16 Directors delegated by the government shall inform the government about matters relevant to the exercise of its role as owner while honoring their obligation of confidentiality.
- 17 The government shall meet regularly with the board to coordinate on the business plan and the financial statements.
- 18 The board shall disclose planned sponsoring benefits in the business plan.

**II. Board (members of the board are directors and executive directors)**

## Basics and tasks

- 19 The board shall establish its own rules of procedure.
- 20 The board shall regularly assess its effectiveness. (*Also counts: The board shall regularly assess its efficiency./The board regularly makes a self-evaluation.*)
- 21 The board keeps the shareholders informed during the financial year by means of interim reports (e.g., quarterly reports).
- 22 The board shall also report non-financial indicators on the enterprise's object/purpose.
- 23 The code states a deadline for the submission of interim reports (e.g., quarterly reports) to the shareholders.
- 24 The board shall publish an annual report on the remuneration of board members (remuneration report) in the financial statements/corporate governance report.

## Composition

- 25 The board is to be composed in such a way that its members on the whole have the knowledge, skills, and experience necessary to properly fulfill its tasks. (*Also counts: Member of the board can only be who has the knowledge, skills, and experience necessary to properly fulfill the tasks of a member of the board.*)
- 26 The code recommends developing a profile of board skills.
- 27 The board shall comprise at least 30% women and at least 30% men.
- 28 The composition of the board shall reflect diversity.
- 29 The board shall comprise at least one external and independent member with proven competence and/or industry knowledge. (*Also counts: The number of board members who are representatives of the government shall be limited.*)

TABLE 1 (Continued)

30	The board shall not comprise members who have a personal or business relationship with the enterprise, its governing bodies, a controlling shareholder, or a company affiliated with a controlling shareholder that may cause a substantial and not merely temporary conflict of interest. ( <i>Also counts:</i> The board shall not comprise members who have a personal or business relationship with the enterprise and its governing bodies that may cause a substantial and not merely temporary conflict of interest.)
31	Members of the board shall undertake training.
Conflicts of interest	
32	Members of the board are bound to observe the enterprise's best interests/purpose and, in their decisions, must neither pursue personal interests nor exploit for themselves business opportunities to which the enterprise is entitled. ( <i>Also counts:</i> Members of the board are bound to observe the enterprise's best interests/purpose.)
33	Members of the board and employees must not claim or accept grants or other undue benefits from third parties for themselves or other persons in relation to their work or provide undue benefits to third parties. ( <i>Also counts:</i> Executive directors and employees ...)
34	The enterprise shall not conduct transactions with directors or their related parties. ( <i>Also counts:</i> Transactions between the enterprise and directors or their related parties shall comply with standards customary to the sector and be conducted only with the approval of the entire board.)
35	The enterprise shall not conduct transactions with executive directors or their related parties. ( <i>Also counts:</i> Transactions between the enterprise and executive directors or their related parties shall comply with standards customary to the sector and be conducted only with the approval of the entire board.)
36	The enterprise shall not enter into advisory, other service, and work contracts with members of the board, or these contracts shall be concluded only with the approval of the entire board.
37	The enterprise shall not grant loans to members of the board. ( <i>Also counts:</i> Loans granted to members of the board shall comply with standards customary to the sector and be granted only with the approval of the entire board.)
38	Members of the board shall not be members of governing bodies of, or exercise advisory functions at, significant competitors of the enterprise and shall assume side-line activities of this nature only with the approval of the entire board.
39	Members of the board shall disclose conflicts of interest to the board.
40	The board shall inform the shareholders' meeting of any conflicts of interests that have arisen and how they were dealt with.
41	Material and not merely temporary conflicts of interest involving a member of the board shall result in the termination of that member's mandate on the board.
Board committees	
42	The board shall establish committees.
43	The committee chairs shall report regularly to the board on the work of their committees.
44	The board shall not delegate decision-making powers to its committees.
45	Former executive directors shall not become committee chairs.
46	The chair of the board (hereafter referred to as <i>board chair</i> ) shall be chair of the committee dealing with the contracts of executive directors.
47	The board shall establish an audit committee.
48	The code states the tasks of the audit committee.
49	The audit committee chair shall not be the board chair and shall not have been executive director within the last three years.
50	The chair or a member of the audit committee shall have specific knowledge and experience of applying accounting principles and internal control procedures and be familiar with auditing. ( <i>Also counts:</i> ... knowledge of or experience in financial and/or accounting matters.)
Execution of the board mandate	
51	Members of the board comply with the rules of good corporate management. ( <i>Also counts:</i> ... exercise the diligence of a prudent and conscientious member of the board.)
52	If members of the board violate the duty of diligence of a prudent and conscientious member of the board, they will be held liable to the enterprise for damages. A business decision is not regarded as a violation of duty if the member of the board could reasonably presume that they were acting on an informed basis in the best interests of the enterprise (business judgment rule).
53	The board shall report to the shareholders' meeting on how many board meetings each member of the board attended. ( <i>Also counts:</i> The board shall report to the shareholders' meeting, if a member of the board has attended less than half of the board meetings in a financial year.)
54	Members of the board must comply with their obligation of confidentiality. ( <i>Also counts:</i> Observance of confidentiality is an essential obligation to the enterprise and its governing organs.)
55	Members of the board ensure that third parties supporting them in their work also comply with their obligation of confidentiality.
56	Members of the board shall execute their mandate in person and shall not allow others to carry out their duties. ( <i>Also counts:</i> Members of the board shall execute their mandate in person.)
57	The code states a limit of the number of board mandates that members of the board may hold at the same time.

(Continues)

TABLE 1 (Continued)

## Liability

- 58 The enterprise shall take out a directors' and officers' liability insurance for members of the board only with the approval of the shareholders' meeting.
- 59 If the enterprise takes out a directors' and officers' liability insurance for members of the board, it shall agree a deductible that is adequate for the respective member's remuneration.
- 60 The decision on taking out a directors' and officers' liability insurance for members of the board and the justification of its appropriateness shall be documented.

## II.1 Directors

## Basics and tasks

- 61 The directors supervise and advise the executive directors regularly.
- 62 The code states at least one of the following objects of supervision of the executive directors by the directors: (1) regularity, appropriateness, and economy of decisions by executive directors; (2) whether the enterprise acts within the scope of its tasks as laid down in its statutes and complies with the relevant provisions; (3) whether the enterprise conducts business with the diligence of a prudent and conscientious executive director.
- 63 Directors delegated by the government must take due account of the interests of the government and observe the resolutions of the responsible political body (e.g., parliament, local council, etc.) when executing their mandate. (*Also counts:* ... must take due account of the interests of the government.)

## Board chair

- 64 The board chair coordinates the activities of the board, chairs its meetings, and represents the board externally.
- 65 The board chair shall be separate from the chief executive officer (CEO). (*Also counts:* Former executive directors shall not become board chair.)

## Compensation and remuneration

- 66 The code states at least one of the following criteria for the appropriateness assessment of remuneration of directors: (1) economic situation/performance of the enterprise, (2) responsibilities and scope of duties of directors, (3) chair/deputy chair of the board and chair of/membership in board committees.

## II.2 Executive directors

## Basics and tasks

- 67 The executive directors define clear and measurable targets for the realization of the enterprise's object/purpose.
- 68 The executive directors shall ensure that the UN Sustainable Development Goals are taken into account in the enterprise's activities and shall report on the progress of their achievement every two years.
- 69 The executive directors are responsible for managing the enterprise and are bound to observe its statutes. (*Also counts:* ... to observe its object/purpose.)
- 70 If permitted by law, the shareholders' meeting shall instruct the executive directors only in justified exceptional cases.
- 71 The executive directors shall ensure that the enterprise's culture promotes gender equality, tolerance, and non-discrimination and offers equal opportunities for development without regard for ethnic origin, gender, religion or beliefs, disability, age, or sexual identity. (*Also counts:* Employees must not be discriminated against on the basis of their ethnic origin, gender, religion or beliefs, disability, age, or sexual identity.)
- 72 The executive directors shall set target figures for the proportion of women in senior positions at the management levels below the executive directors.
- 73 The executive directors shall strive towards a balance between women and men and diversity when filling senior management positions in the enterprise. (*Also counts:* ... a balance between women and men when filling senior management positions in the enterprise./The goal is an equal representation of women in senior management positions in the enterprise.)

## Appointment and employment

- 74 The board appoints and dismisses executive directors. (*Also counts:* The shareholders' meeting ...)
- 75 The executive directors shall be recruited in a transparent selection process with the aim to select persons that have the qualifications necessary to properly fulfill the tasks of executive directors. (*Also counts:* The recruitment process for executive directors shall be aimed at selecting the most qualified candidate.)
- 76 The code states the responsibilities for elaboration of the employment conditions of executive directors.
- 77 The board shall ensure that there is long-term succession planning for executive directors and senior management positions. (*Also counts:* ... for executive directors.)
- 78 The board shall strive towards a balance between women and men and diversity when appointing executive directors. (*Also counts:* ... a balance between women and men when appointing executive directors./The goal is an equal representation of women in the position of executive directors.)

TABLE 1 (Continued)

79	The first appointment as executive director shall be for a maximum period of three years. ( <i>Also counts: ... five years.</i> )
80	The code states the earliest point in time, when the decision on re-appointment as executive director may be made.
Remuneration	
81	The code states the responsibilities for deciding on the remuneration of executive directors.
82	The code states whether or not the remuneration of executive directors may contain variable/performance-based components.
83	In the event of a new appointment or re-appointment of executive directors or in the event of changes to employment contracts with executive directors, the board shall ensure that they contractually consent to the disclosure of their remuneration. ( <i>Also counts: In the event of a new appointment or re-appointment of executive directors, ...</i> )
Amount and appropriateness of remuneration of executive directors	
84	The code states at least one of the following criteria for the appropriateness assessment of remuneration of executive directors: (1) tasks of executive directors, (2) individual performance of executive directors, (3) economic situation/performance/future prospects of the enterprise, (4) pension contributions or allowance.
85	The appropriateness assessment of remuneration of executive directors shall comprise a comparison with peer enterprises.
86	The appropriateness assessment of remuneration of executive directors shall comprise a comparison with the remuneration structure in place elsewhere in the enterprise.
87	When concluding employment contracts with executive directors, the responsible body shall agree that payments made to executive directors due to early termination of their respective contracts without good cause, including fringe benefits, do not exceed twice the annual remuneration (severance cap) and do not constitute remuneration for more than the remaining term of the respective employment contracts.
88	The code states the following components of variable/performance-based remuneration of executive directors: (1) nonrecurring and annually recurring components that are bound to the lasting success of the enterprise, (2) components with long-term incentive effect, (3) components with risk character.
89	For the event of exceptional, unforeseen developments, the responsible body shall agree a maximum limit of remuneration of executive directors.
90	The code recommends excluding subsequent amendments of performance targets and comparison parameters.
<b>III. Risk management, internal audit, and compliance management</b>	
91	The board shall ensure adequate risk management and risk controlling in the enterprise. ( <i>Also counts: The board shall ensure adequate risk management in the enterprise.</i> )
92	The board shall ensure an effective internal audit/control system in the enterprise.
93	The board shall set up the internal audit as an independent body.
94	The board may request that the internal audit carries out investigations.
95	Requests for investigations by the internal audit shall be put in writing.
96	The head of the internal audit shall report to the board at least once a year. ( <i>Also counts: The internal audit is required to report to the board.</i> )
97	The board ensures compliance with provisions of law and the enterprise's internal policies; it also strives towards compliance by subsidiary enterprises. ( <i>Also counts: The executive directors ...</i> )
98	The board shall establish a compliance management system, declare that it has been established and is being operated, and disclose its main features in the financial statements/corporate governance report. ( <i>Also counts: ... shall establish a compliance management system and disclose its main features.</i> )
99	The board must create an opportunity for employees and third parties to report, in a protected manner, suspected violations of the law within the enterprise. ( <i>Also counts: ... shall create an opportunity for employees to report ...</i> )
<b>IV. Accounting and financial statements</b>	
Preparation and publication of financial statements	
100	The board shall prepare and sign the financial statements and subject them to an external audit.
101	The preparation and auditing of financial statements is to be oriented on the same accounting and auditing standards as for listed companies.
102	The code states a time period after the end of the financial year within which financial statements shall be approved by the shareholders' meeting.
Disclosure in the financial statements	
103	The enterprise shall report non-financial performance indicators that are important to the object/purpose and economic activities of the enterprise in the financial statements.
104	The enterprise shall disclose a list of third-party enterprises in which it has a shareholding of no minor importance in the financial statements.
105	The enterprise shall disclose in the financial statements, which sponsoring benefits were paid to which organizations.

(Continues)



TABLE 1 (Continued)

- 106 The enterprise shall explain relations to shareholders that according to the applicable accounting standards qualify as related parties in the financial statements.
- 107 The enterprise shall disclose information whether the set target figures for the proportion of women in senior positions at the management levels below the executive directors have been achieved, and if not, details of the objective reasons in the financial statements. (*Also counts: ... shall disclose information whether the set target figures ... have been achieved.*)

## Disclosure of remuneration of executive directors

- 108 The code recommends disclosure of pay to executive directors in the shareholdings report.
- 109 The code recommends disclosure of total pay to executive directors in the remuneration report in the financial statements. (*Also counts: ... financial statements/corporate governance report.*)
- 110 The code recommends personalized disclosure of pay to executive directors in the remuneration report in the financial statements. (*Also counts: ... financial statements/corporate governance report.*)
- 111 The code recommends personalized disclosure of fixed/non-performance-based components of pay to executive directors in the remuneration report in the financial statements. (*Also counts: ... financial statements/corporate governance report.*)
- 112 The code recommends personalized disclosure of variable/performance-based components of pay to executive directors in the remuneration report in the financial statements. (*Also counts: ... financial statements/corporate governance report.*)
- 113 The code recommends personalized disclosure of retirement benefits for executive directors in the remuneration report in the financial statements. (*Also counts: ... financial statements/corporate governance report.*)
- 114 The code recommends personalized disclosure of fringe benefits for executive directors in the remuneration report in the financial statements. (*Also counts: ... financial statements/corporate governance report.*)

## Disclosure of remuneration of directors

- 115 The code recommends disclosure of pay to directors in the shareholdings report.
- 116 The code recommends disclosure of total pay to directors in the remuneration report in the financial statements. (*Also counts: ... financial statements/corporate governance report.*)
- 117 The code recommends personalized disclosure of pay to directors in the remuneration report in the financial statements. (*Also counts: ... financial statements/corporate governance report.*)
- 118 The code recommends personalized disclosure of pay to directors classified by components in the remuneration report in the financial statements. (*Also counts: ... financial statements/corporate governance report.*)
- 119 The code recommends personalized disclosure of payments or benefits to directors for personal services, particularly advisory or agency services in the remuneration report in the financial statements. (*Also counts: ... financial statements/corporate governance report.*)

## V. External audit and public financial control

## External audit

- 120 The shareholders' meeting elects the external auditor. (*Also counts: ... appoints ...*)
- 121 The board issues the audit mandate to the external auditor. (*Also counts: The shareholders' meeting ...*)
- 122 The proposed external auditor shall issue a statement whether and, where applicable, which business, financial, personal, or other relationships exist between the auditor and its governing bodies and lead auditors on the one hand, and the enterprise and the members of its governing bodies on the other hand, that could call their independence into question. This statement shall also include the extent to which other services were provided for the enterprise over the past financial year, especially in the area of consulting, or that have been contracted for the following year.
- 123 The board shall agree with the external auditor that the board chair or the audit committee chair will be informed, without undue delay, of any grounds for exclusion or disqualification that occur during the audit, unless any such grounds are eliminated immediately.
- 124 The external auditor who audits the financial statements of the enterprise shall not at the same time be assigned with the provision of advisory services for the same enterprise. (*Also counts: ... shall be assigned with the provision of these services only with the approval of the entire board.*)
- 125 The code recommends rotating the external auditor after auditing five consecutive financial statements of the enterprise.
- 126 The code recommends the public tender of the external audit.
- 127 The board shall agree with the external auditor that they inform the audit committee about all findings and incidents that are of importance for the tasks of the board and that come to their knowledge during the external audit.
- 128 The external audit shall also comprise an audit of the Declaration of Compliance, whether it has been prepared and published.
- 129 The board shall agree with the external auditor that they inform the audit committee or notes in the audit report if, during the audit, they identify any facts that indicate an inaccuracy in the Declaration of Compliance. (*Also counts: ... inform the board ...*)
- 130 The external auditor shall participate in the board's deliberations on the financial statements and shall report on the key findings of the audit.
- 131 The board shall distribute the management letter to the shareholdings management of the government.

TABLE 1 (Continued)

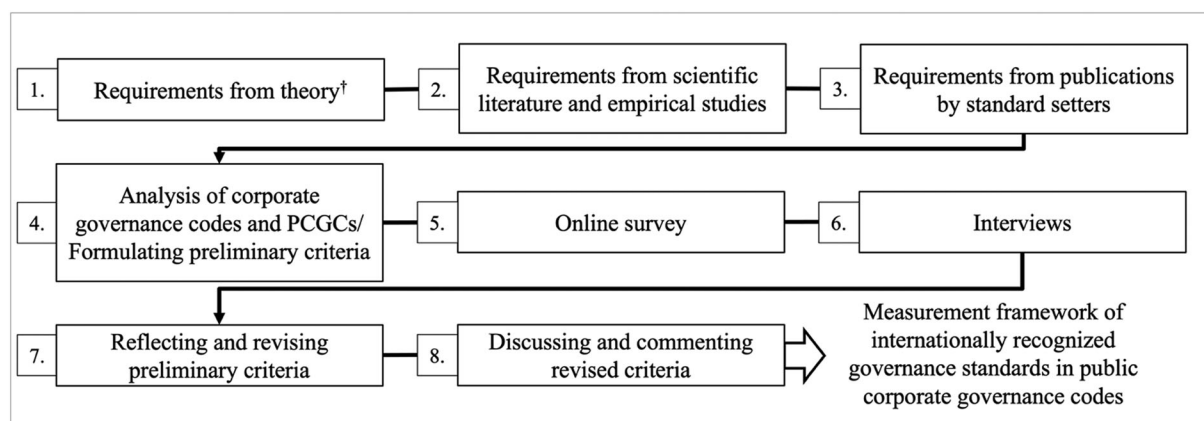
132	The external audit shall also comprise an audit of the remuneration report and whether the remuneration of executive directors is in accordance with employment contracts. <i>(Also counts: ... an audit and confirmation of the proper implementation of the remuneration system for executive directors.)</i>
Public financial control	
133	The code states the mandate for public audit authorities.
<b>VI. Transparency and disclosure on the enterprise's website</b>	
134	Information about the enterprise shall also be accessible via the enterprise's website.
135	The statutes shall also be accessible via the enterprise's website.
136	The financial statements shall also be accessible via the enterprise's website.
137	The rules of procedure for the board shall also be accessible via the enterprise's website.
138	Information on directors, their names, and respective roles and responsibilities on the board, shall also be accessible via the enterprise's website.
139	Information on executive directors, their respective professional careers, shall also be accessible via the enterprise's website.
<b>VII. Scope</b>	
140	The code applies to all enterprises in a form of private law in which the government has a direct full or majority ownership.
141	The code applies to enterprises in which the government has an indirect majority ownership (e.g., subsidiaries of enterprises owned by the government).
142	The code applies to enterprises in the legal form of a legal entity under public law that are subject to supervision by the government.
143	Enterprises in which the government has a minority ownership are recommended to apply the code.
<b>VIII. Comply-or-explain principle and Declaration of Compliance</b>	
144	The board reports annually on the corporate governance of the enterprise/issues an annual Declaration of Compliance with the code.
145	The Declaration of Compliance/the corporate governance report is anchored in the enterprise's statutes or by resolution of the shareholders' meeting.
146	The board declares annually that the recommendations of the code have been and are being complied with.
147	The board declares annually which recommendations of the code have not been or are not being complied with and why not. <i>(Also counts: The enterprise can choose not to follow a recommendation but is then obliged to disclose and justify this annually./If recommendations are not being followed, it is to be justified in a comprehensible manner.)</i>
148	The Declaration of Compliance/the corporate governance report shall also be accessible via the enterprise's website.
149	The Declaration of Compliance/the corporate governance report shall be permanently accessible via the enterprise's website. <i>(Also counts: Previous Declarations of Compliance/corporate governance reports shall be accessible via the enterprise's website for at least five years.)</i>
<b>IX. Review and adaptation</b>	
150	The code shall be regularly reviewed and adapted if necessary. <i>(Also counts: The code shall be regularly reviewed.)</i>
<b>Policy topic diversity</b> <i>(In addition to regulatory fields, certain criteria are also assigned to policy topics to offer an additional policy-oriented perspective.)</i>	
27	The board shall comprise at least 30% women and at least 30% men.
28	The composition of the board shall reflect diversity.
71	The executive directors shall ensure that the enterprise's culture promotes gender equality, tolerance, and non-discrimination and offers equal opportunities for development without regard for ethnic origin, gender, religion or beliefs, disability, age, or sexual identity. <i>(Also counts: Employees must not be discriminated against on the basis of their ethnic origin, gender, religion or beliefs, disability, age, or sexual identity.)</i>
72	The executive directors shall set target figures for the proportion of women in senior positions at the management levels below the executive directors.
73	The executive directors shall strive towards a balance between women and men and diversity when filling senior management positions in the enterprise. <i>(Also counts: ... a balance between women and men when filling senior management positions in the enterprise./The goal is an equal representation of women in senior management positions in the enterprise.)</i>
78	The board shall strive towards a balance between women and men and diversity when appointing executive directors. <i>(Also counts: ... a balance between women and men when appointing executive directors./The goal is an equal representation of women in the position of executive directors.)</i>
107	The enterprise shall disclose information whether the set target figures for the proportion of women in senior positions at the management levels below the executive directors have been achieved, and if not, details of the objective reasons in the financial statements. <i>(Also counts: ... shall disclose information whether the set target figures ... have been achieved.)</i>

(Continues)

TABLE 1 (Continued)

Policy topic *appropriate remuneration*

84	The code states at least one of the following criteria for the appropriateness assessment of remuneration of executive directors: (1) tasks of executive directors, (2) individual performance of executive directors, (3) economic situation/performance/future prospects of the enterprise, (4) pension contributions or allowance.
85	The appropriateness assessment of remuneration of executive directors shall comprise a comparison with peer enterprises.
86	The appropriateness assessment of remuneration of executive directors shall comprise a comparison with the remuneration structure in place elsewhere in the enterprise.
87	When concluding employment contracts with executive directors, the responsible body shall agree that payments made to executive directors due to early termination of their respective contracts without good cause, including fringe benefits, do not exceed twice the annual remuneration (severance cap) and do not constitute remuneration for more than the remaining term of the respective employment contracts.
88	The code states the following components of variable/performance-based remuneration of executive directors: (1) nonrecurring and annually recurring components that are bound to the lasting success of the enterprise, (2) components with long-term incentive effect, (3) components with risk character.
89	For the event of exceptional, unforeseen developments, the responsible body shall agree a maximum limit of remuneration of executive directors.
90	The code recommends excluding subsequent amendments of performance targets and comparison parameters.



**FIGURE 1** Steps in the development of the measurement framework of internationally recognized governance standards in public corporate governance codes (PCGCs). †Sub-areas of new institutional economics, agency theory, property rights theory, transaction costs theory, and stewardship theory

hand, are designed with comparability and codability in mind. The measurement framework only contains criteria that represent internationally recognized governance standards and can thus be used to compare PCGCs in different countries and on different government levels.

Second, existing measurement approaches have been developed by researchers to measure the corporate governance of private sector companies (Black et al., 2017). Thus, they cannot account for special features in the corporate governance of SOEs. Third, existing measurement approaches intend to measure actually applied corporate governance practices at the company level (Black et al., 2017). The developed measurement framework is applied at the regulatory level to measure the diffusion of governance standards in PCGCs. Fourth, existing measurement approaches focus only on certain topics of corporate governance, such as CEO duality and board size (Chen et al., 2007), shareholder rights (Gompers

et al., 2003), ownership structure, and executive compensation (Larcker et al., 2007). The developed measurement framework covers all regulatory fields relevant to the corporate governance of SOEs and thus enables a nuanced understanding of the diffusion of governance standards.

The measurement framework was developed in eight steps, which are visualized in Figure 1.

The first step was to derive requirements for PCGCs from new institutional economics and its branches—agency theory, property rights theory, and transaction costs theory—as well as stewardship theory. Taken together, these theories are useful for identifying weaknesses in the corporate governance system that PCGCs should address (Bruton et al., 2015; Papenfuß & Schmidt, 2021; Van Slyke, 2007; Voorn et al., 2019; Whincop, 2016).

From the perspective of agency theory, the devolution of public services to SOEs creates a multilevel chain of principal-agent

relationships (Klausen & Winsvold, 2021; Voorn et al., 2019). This chain runs from the citizens to their elected representatives in parliaments and governments, to public administration, and ultimately to the boards of SOEs (Ennsner-Jedenastik, 2014; Papenfuß, 2020). Every principal-agent relationship involves agency problems such as opportunistic behavior and information asymmetries (Voorn et al., 2019). PCGCs should help address these problems and ensure that SOEs serve the interests of their owners and that their behavior becomes observable and assessable (Papenfuß & Schmidt, 2021; Van Slyke, 2007). This can be achieved by reducing information asymmetries and aligning interests (Brennan & Solomon, 2008; Papenfuß & Schmidt, 2021). From the perspective of property rights theory, PCGCs should provide information on the allocation of property rights to SOEs and the ensuing rights and obligations of relevant actors (Vining & Weimer, 2016). From the perspective of transaction costs theory, PCGCs are an investment in an institution with rules for coordinating the interactions and transactions of actors (Whincop, 2016). They should help to, for example, reduce the costs of information exchange and monitoring. From the perspective of stewardship theory, PCGCs should facilitate trust-based cooperation between governments and their SOEs (Van Slyke, 2007). For instance, they should provide measures for increasing transparency and trust, and they should assign clear roles with individual responsibility to actors.

The second step was to derive requirements from scientific literature and empirical studies. In the third step, further requirements were derived from publications by standard-setters. The fourth step was to analyze corporate governance codes and PCGCs as examples of how abstract requirements are formulated into standards to facilitate the derivation of concrete and codable criteria. This step also entailed the formulation of preliminary criteria for the measurement framework and the grouping of these criteria into regulatory fields.

The fifth step involved testing the criteria. Between April and June 2019, an online survey was conducted with 100 participants from academia, politics, public administration, SOEs, auditing, and consulting. The participants assessed whether the criteria reflected governance standards that should be incorporated into PCGCs and provided feedback on their formulation.

The sixth step was to discuss the criteria with experts on the corporate governance of SOEs. These discussions took place via unstructured individual and group interviews and via e-mail. Between August and December 2019, 10 interviews, each lasting an average of 70 minutes, were conducted with a total of 31 individuals.

The seventh step was to reflect on and revise the preliminary criteria based on the survey and interview results. During the eighth step, the revised criteria were discussed, and practitioners in the field of corporate governance of SOEs were invited to share comments. Additional feedback was obtained from participants in debates on the content of PCGCs at international scientific meetings and in expert groups. The discussion, comments, and feedback were used to formulate the measurement framework. Finally, two coders applied the measurement framework independently to the same six PCGCs and held regular meetings to address the few coding uncertainties found

(Seidl et al., 2013; Zattoni & Cuomo, 2008). As a result, the formulation of single criteria of the measurement framework was refined to ensure coding reliability by different coders.

Overall, the development process ensured the applicability of the measurement framework to one-tier and two-tier board systems, common and civil law countries, and EU and non-EU countries. To be applicable to—and by—all governments, most criteria are recommendations to which the comply-or-explain principle applies.

The measurement framework's 150 criteria are grouped into nine regulatory fields. These are outlined below.

*Governments' role as owner and exercise of owner rights:* Standards in this regulatory field clarify the role of governments as owners of SOEs and provide for their representation in decision-making bodies (Expert Commission G-PCGM, 2022; Klausen & Winsvold, 2021; OECD, 2015; Voorn et al., 2019). Such standards should be included in PCGCs because they address both public administration and SOEs and define the relationship between governments and their SOEs.

*Board:* This regulatory field contains standards regarding the tasks, composition, and internal functioning of the board (Bernier et al., 2020; Johanson & Østergren, 2010; Mensi-Klarbach et al., 2021; Terjesen et al., 2015). It also defines requirements for individual board members and the execution of their mandate (Leixnering et al., 2021; Papenfuß, 2020; World Bank, 2014). Two sub-fields, *directors* and *executive directors*, contain specific standards regarding tasks, appointment, and remuneration (Papenfuß & Schmidt, 2022).

*Risk management, internal audit, and compliance management:* This regulatory field provides for the implementation of risk management, internal audit, and compliance management systems in SOEs (Expert Commission G-PCGM, 2022; OECD, 2015; World Bank, 2014).

*Accounting and financial statements:* Standards in this regulatory field govern the preparation and publication of financial statements as a fundamental disclosure requirement of SOEs (Brennan & Solomon, 2008; Expert Commission G-PCGM, 2022; OECD, 2015; Papenfuß & Schmidt, 2022).

*External audit and public financial control:* This regulatory field is based on the principle that an independent external audit of SOEs' financial reporting makes them more accountable to owners, investors, and the public (Aguilera & Cuervo-Cazurra, 2004; OECD, 2015; World Bank, 2014).

*Transparency and disclosure on the enterprise's website:* This regulatory field provides for availability and accessibility of financial and non-financial information on SOEs on the Internet (Aguilera & Cuervo-Cazurra, 2004; Expert Commission G-PCGM, 2022; World Bank, 2014).

*Scope:* Standards in this regulatory field determine PCGCs' scope of application (Expert Commission G-PCGM, 2022; OECD, 2015).

*Comply-or-explain principle and Declaration of Compliance:* Standards in this regulatory field ensure that the comply-or-explain principle is anchored in enterprises' statutes, obliging the board to issue an annual Declaration of Compliance (Expert Commission G-PCGM, 2022; Papenfuß, 2020; Seidl et al., 2013).

*Review:* This regulatory field stipulates that PCGCs should be regularly reviewed and adapted if required to account for new developments and changes in the corporate governance of SOEs (Expert Commission G-PCGM, 2022; OECD, 2015).

In addition to regulatory fields, certain criteria are assigned to policy topics to offer an additional perspective on the diffusion of governance standards; the diffusion scores for policy topics therefore do not add to the total diffusion score. These policy topics are *diversity* and *appropriate remuneration*, which address regulation currently debated in the literature on the representation of women on boards (Mensi-Klarbach et al., 2021; Terjesen et al., 2015) and on the remuneration of executive directors (Borisova et al., 2019).

The diffusion of internationally recognized governance standards in PCGCs is measured by using the developed measurement framework. It equals the number of criteria that a PCGC fulfills. To fulfill the criteria, PCGCs must contain all required content and meet the required level of obligation. Governance standards can be obligatory, using *must* or an equivalent term; they can be recommended, using *shall* or an equivalent term; or they can be suggested, using *should*, *can*, or an equivalent term. Suggested governance standards cannot fulfill the framework criteria because they do not trigger disclosure based on the comply-or-explain principle. Each criterion in the measurement framework is weighed equally, which is a common practice reflecting researchers' "lack of knowledge about which elements are important (or more important)" (Black et al., 2017, p. 400).

Like in other studies, this study used a binary coding system (Black et al., 2017). Fulfillment of criteria was coded as one, and zero otherwise. Coding was done manually. Diffusion can assume values between 0 and 150 for overall diffusion. The different maximum

values for diffusion in regulatory fields reflect that the number of requirements for some topics is higher than for others. The level of detail and the resulting extent of the measurement framework are necessary to enable a comprehensive and at the same time nuanced understanding of the diffusion of internationally recognized governance standards in all fields related to the corporate governance of SOEs.

### 3.2 | Sample

The empirical analysis was conducted on the most current version of PCGCs issued by local (cities with at least 100,000 inhabitants), state, and federal governments in Austria, Germany, and Switzerland. As constitutional states with parliamentary democracies, the three countries' legal systems and administrative traditions are similar to those of numerous other countries. Empirical data show that the importance of SOEs (in terms of their economic value and share of employees) in these countries is similar to many other countries (OECD, 2017).

Austria, Germany, and Switzerland are decentralized federal countries, which means that the principles of subsidiarity and local autonomy play an important role. As a result, local, state, and federal governments issue individual PCGCs, providing a theoretically fruitful testing ground. The PCGCs are titled *Public Corporate Governance Code* or *Directive*, with slight variations.

It is especially rewarding to conduct the first comparative analysis of PCGCs in Austria, Germany, and Switzerland because the countries have similar legal systems and administrative traditions, economic and social situations, and challenges related to the corporate governance of SOEs. On the other hand, using the measurement framework on these three countries illustrates its applicability in different national contexts.

The analysis included all current PCGCs issued by German-speaking governments that were accessible via governments' websites on September 30, 2020. While the documents do not have to be denoted as a PCGC, they must have the clearly stated purpose of establishing voluntary and/or obligatory standards for the corporate governance of SOEs. They must also address all relevant actors, including public administration, governments, and the governing bodies of SOEs. A total of 60 PCGCs were identified. Table 2 provides an overview of the PCGCs by country and government.

	No. of governments	Austria	Germany	Switzerland
No. of governments	136	15	94	27
No. of PCGCs	60	3	44	13
<b>Federal and state level</b>				
No. of governments	49	10	17	22
No. of PCGCs	28	3	13	12
<b>Local level (≥100,000 inhabitants)</b>				
No. of governments	87	5	77	5
No. of PCGCs	32	0	31	1

**TABLE 2** Overview of German-speaking governments and public corporate governance codes (PCGCs) by country and government level

### 4 | EMPIRICAL RESULTS

Table 3 reports descriptive statistics for the diffusion of internationally recognized governance standards in PCGCs. The overall diffusion can take values between 0 and 150. The average overall diffusion is 46.8, ranging between 4 and 93 in individual PCGCs. On average, diffusion in percent is lowest in the regulatory field of transparency (8.3%) and highest in the regulatory field of scope (45.0%). Considerable differences exist between the two sub-fields of the regulatory field of board, directors (43.3%) and executive directors (28.3%). Moreover, the policy topic of diversity shows especially low diffusion (10.0%), whereas diffusion in the policy topic of appropriate remuneration (31.4%) is comparably high. Despite these low values, every criterion is fulfilled at least once by a PCGC, underlining the feasibility of each criterion in the measurement framework.

To illustrate the extent to which the diffusion varies in the comparison of PCGCs and regulatory fields, Table 3 reports the coefficient of variation (cv). The cv is lowest in the regulatory field of owner

(49.0%), followed by board and its sub-field directors (51.8%), and highest in the regulatory fields of review (148.1%) and transparency (206.8%).

The dispersion of diffusion across the sample is visualized in a box plot (see Figure 2). The black bars show the median, and the boxes' lower and upper limits are the lower and upper quartiles, respectively. Larger boxes and longer whiskers, such as those associated with the regulatory field of auditing, indicate that diffusion is more widely dispersed across the sample. Smaller boxes and shorter whiskers, such as those associated with the regulatory fields of risk management and transparency, indicate that diffusion is less widely dispersed. The circles and stars indicate that there are several outliers with comparably high diffusion.

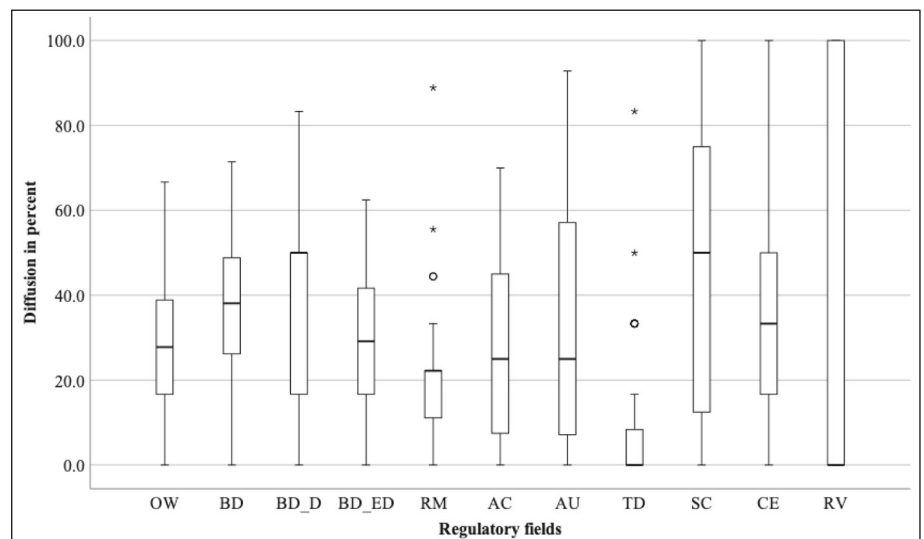
As outlined above, researchers call for investigating the effect of code issuers' characteristics on the diffusion of governance standards (Aguilera & Cuervo-Cazurra, 2009; Cuomo et al., 2016; Haxhi & Van Ees, 2010). In the context of governments as code issuers, the following characteristics are particularly relevant: government level

**TABLE 3** Summary descriptive statistics for the diffusion of internationally recognized governance standards in public corporate governance codes overall and in regulatory fields

	n	Overall	OW	BD	BD-D	BD-ED	RM	AC	AU	TD	SC	CE	RV	DI	AR
Max. score possible	-	150.0	18.0	42.0	6.0	24.0	9.0	20.0	14.0	6.0	4.0	6.0	1.0	7.0	7.0
Diffusion (mean)	60	46.8	5.4	15.2	2.6	6.8	2.0	5.4	4.8	0.5	1.8	2.2	0.3	0.7	2.2
Diffusion in %		31.2	30.0	36.2	43.3	28.3	22.2	27.0	34.3	8.3	45.0	36.7	30.0	10.0	31.4
Coefficient of variation (cv) for scores (in %)		50.2	49.0	51.8	51.8	64.6	62.3	81.5	81.9	206.8	74.9	77.5	148.1	152.9	86.2

Abbreviations for regulatory fields: governments' role as owner and exercise of owner rights (OW); board (BD) and sub-fields directors (BD-D) and executive directors (BD-ED); risk management, internal audit, and compliance management (RM); accounting and financial statements (AC); external audit and public financial control (AU); transparency and disclosure on the enterprise's website (TD); scope (SC); comply-or-explain principle and Declaration of Compliance (CE); review (RV). Abbreviations for policy topics: diversity (DI); appropriate remuneration (AR). In addition to regulatory fields, certain criteria are also assigned to policy topics to offer an additional perspective on the diffusion of governance standards; the scores for policy topics therefore do not add to the total score.

**FIGURE 2** Boxplots for the diffusion of internationally recognized governance standards in public corporate governance codes in regulatory fields (in %) across sample. Notes: All diffusion scores are in percent. Abbreviations for regulatory fields: governments' role as owner and exercise of owner rights (OW); board (BD) and sub-fields directors (BD-D) and executive directors (BD-ED); risk management, internal audit, and compliance management (RM); accounting and financial statements (AC); external audit and public financial control (AU); transparency and disclosure on the enterprise's website (TD); scope (SC); comply-or-explain principle and Declaration of Compliance (CE); review (RV)



**TABLE 4** Descriptive statistics for the diffusion of internationally recognized governance standards in public corporate governance codes (PCGCs) regarding government characteristics

	n	Overall	OW	BD	BD-D	BD-ED	RM	AC	AU	TD	SC	CE	RV	DI	AR
Max. score possible	-	150.0	18.0	42.0	6.0	24.0	9.0	20.0	14.0	6.0	4.0	6.0	1.0	7.0	7.0
<b>Government level</b>															
Federal and state	28	44.4	3.9	14.6	2.4	6.6	1.6	5.6	4.6	0.8	1.5	2.4	0.4	0.7	2.4
Local	32	48.8	6.7	15.6	2.7	6.9	2.3	5.1	4.9	0.2	2.0	2.1	0.3	0.6	2.1
<b>Political affiliation of government head</b>															
Left-wing	38	50.4	5.6	16.3	2.6	7.3	2.2	5.6	5.4	0.6	1.9	2.5	0.4	0.9	2.4
Right-wing	22	40.8	5.1	13.2	2.4	5.8	1.7	5.1	3.7	0.3	1.6	1.7	0.2	0.3	2.0
<b>PCGC revision</b>															
Revised	26	52.8	5.5	16.5	2.7	7.7	2.4	7.0	5.7	0.8	1.7	2.5	0.3	1.0	2.5
Non-revised	34	42.0	5.3	14.1	2.4	6.0	1.7	4.1	4.1	0.2	1.8	2.0	0.3	0.4	2.1

Abbreviations for regulatory fields: governments' role as owner and exercise of owner rights (OW); board (BD) and sub-fields directors (BD-D) and executive directors (BD-ED); risk management, internal audit, and compliance management (RM); accounting and financial statements (AC); external audit and public financial control (AU); transparency and disclosure on the enterprise's website (TD); scope (SC); comply-or-explain principle and Declaration of Compliance (CE); review (RV). Abbreviations for policy topics: diversity (DI); appropriate remuneration (AR). In addition to regulatory fields, certain criteria are also assigned to policy topics to offer an additional perspective on the diffusion of governance standards; the scores for policy topics therefore do not add to the total score.

(Kuhlmann & Wollmann, 2019), political affiliation of the government head (Lester et al., 2008; Terjesen et al., 2015), and PCGC revision (Expert Commission G-PCGM, 2022; OECD, 2015). Table 4 reports the diffusion in comparison between PCGCs of governments that differ with regard to these characteristics.

The overall diffusion in PCGCs of local governments is higher by 4.4 points than in PCGCs of federal and state governments. PCGCs of local governments also have higher diffusion in all but four regulatory fields (accounting, transparency, comply-or-explain, and revision). In contrast, the diffusion in both policy topics is higher in PCGCs of federal and state governments. Comparing left-wing and right-wing governments, in PCGCs of left-wing governments, overall diffusion is higher by 9.6 points and the diffusion is also higher in all regulatory fields and policy topics. Comparing revised and non-revised PCGCs, overall diffusion in revised PCGC is higher by 10.8 points and they also have higher diffusion in all but one regulatory field (scope) and both policy topics. The diffusion in the regulatory field of revision is similar between revised and non-revised PCGCs.

Table 5 shows the overall diffusion and diffusion within regulatory fields for each PCGC.

## 5 | DISCUSSION AND DEVELOPMENT OF PROPOSITIONS FOR FUTURE RESEARCH

### 5.1 | Discussion of main findings from the perspective of neo-institutional theory

Overall, the findings indicate that the extent to which internationally recognized governance standards diffuse in PCGCs varies considerably between governments in Austria, Germany, and Switzerland and between governments within each country. These differences exist

between PCGCs of governments on different government levels as well as on the same government level. Many governments are far from adopting governance standards into their PCGCs that would allow them to address the severe challenges related to the corporate governance of SOEs. Governments react very differently to similar governance challenges and show varying degrees of willingness to regulate the corporate governance of their SOEs. The findings also underline the usefulness of comprehensive and differentiated analyses of corporate governance codes. If empirical studies assessed the diffusion of corporate governance codes only from a binary perspective—i.e., a code exists or does not exist in a given country—or assessed the diffusion of governance standards only in single regulatory fields, they would arrive at different conclusions than by using a comprehensive measurement framework.

In view of the substantial diffusion differences identified in this study, the understanding of the drivers behind them needs to be enhanced. Derived from the empirical findings and neo-institutional theory, the study develops propositions about potential drivers of diffusion differences, offering avenues for advancing future theory-building. Neo-institutional theory is considered pertinent to explore diffusion differences (Böhm et al., 2013; Haxhi & Van Ees, 2010; Judge et al., 2010).

According to neo-institutional theory, organizations within a social system face coercive, mimetic, and/or normative pressures to adopt new practices such as corporate governance codes or governance standards (Aguilera & Cuervo-Cazurra, 2004; Judge et al., 2010; Ponomareva et al., 2022; Zattoni & Cuomo, 2008). Organizations are legitimacy-seeking in that they adopt practices “because of their growing taken-for-grantedness, which makes adoption socially expected” (Zattoni & Cuomo, 2008, p. 2). Transferring this perspective to the context of this study, governments thus adopt internationally recognized governance

**TABLE 5** Overall diffusion and diffusion of internationally recognized governance standards in regulatory fields and policy topics for individual public corporate governance codes

	Overall diffusion score	OW	BD	BD-D	BD-ED	RM	AC	AU	TD	SC	CE	RV	DI	AR
Max. score possible	150	18	42	6	24	9	20	14	6	4	6	1	7	7
<b>Austria</b>														
Federation	63	3	23	4	5	2	12	8	2	0	4	0	1	2
State Salzburg	48	3	23	1	6	2	2	5	1	2	3	0	0	1
State Vorarlberg	44	3	17	4	6	2	5	1	1	1	4	0	0	2
<b>Germany</b>														
Federation	70	3	24	1	14	2	9	8	2	2	4	1	3	4
State Baden-Württemberg	74	4	16	5	12	2	13	12	0	3	6	1	2	3
State Berlin	60	0	26	1	10	2	11	6	1	1	2	0	1	5
State Brandenburg	85	10	27	3	14	3	10	10	2	3	3	0	1	6
State Bremen	76	6	22	4	13	4	9	8	2	2	5	1	0	6
State Hamburg	82	3	27	4	15	4	10	9	3	2	5	0	2	5
State Hessen	86	4	25	5	14	2	14	9	2	4	6	1	0	7
State Nordrhein-Westfalen	76	5	30	3	11	2	4	10	0	4	6	1	2	6
State Rheinland-Pfalz	72	4	17	5	12	2	13	11	1	3	4	0	2	3
State Saarland	43	4	16	4	7	2	2	3	0	4	0	1	0	2
State Sachsen-Anhalt	71	5	20	2	14	1	10	8	2	2	6	1	2	5
State Schleswig-Holstein	78	4	27	4	12	2	13	8	2	2	4	0	2	5
State Thüringen	76	7	24	3	12	1	13	9	0	3	4	0	1	5
City Bielefeld	50	6	17	3	6	3	2	8	0	3	2	0	1	2
City Bochum	48	7	14	3	5	2	11	2	0	1	2	1	0	2
City Bonn	58	7	18	4	7	2	5	12	0	1	2	0	0	3
City Darmstadt	43	0	17	0	8	2	8	3	0	2	3	0	2	0
City Dortmund	49	9	18	3	5	2	5	1	0	4	2	0	0	2
City Duisburg	42	7	15	3	4	2	5	2	0	2	2	0	0	2
City Düsseldorf	47	6	16	3	7	2	10	1	0	1	1	0	2	3
City Essen	50	6	19	3	9	3	3	2	0	3	2	0	0	2
City Frankfurt a.M.	46	5	16	3	8	1	1	8	0	2	2	0	0	3
City Fürth	56	7	20	2	10	2	3	6	0	3	2	1	0	5
City Gelsenkirchen	43	6	17	3	8	2	3	2	0	1	1	0	0	2
City Halle (Saale)	37	5	12	1	6	1	1	4	0	3	4	0	1	2
City Herne	46	7	16	3	7	2	5	2	0	2	2	0	0	2
City Köln	93	9	25	3	13	8	9	13	5	4	4	0	5	5
City Leipzig	62	7	22	4	9	2	8	7	0	1	1	1	0	3
City Lübeck	31	4	13	1	5	1	0	4	0	0	3	0	1	0
City Magdeburg	30	5	9	2	3	1	1	6	0	1	2	0	0	0
City Mainz	65	11	17	2	7	5	7	9	0	4	3	0	2	2
City Mannheim	39	5	11	4	6	2	7	1	0	0	2	1	0	0
City Mönchengladbach	43	5	14	3	7	3	5	3	0	2	1	0	0	2
City Münster	51	8	16	2	8	3	8	2	0	2	2	0	0	2
City Neuss	47	5	18	5	10	2	2	3	0	0	1	1	0	2
City Offenbach a.M.	41	7	13	2	5	2	3	4	0	3	2	0	0	2
City Oldenburg	39	8	11	3	4	2	1	3	1	3	3	0	0	2
City Potsdam	65	12	21	3	13	3	2	10	0	0	1	0	0	4
City Rostock	63	9	19	3	7	2	10	9	0	2	2	0	0	2

(Continues)



TABLE 5 (Continued)

	Overall diffusion score	OW	BD	BD-D	BD-ED	RM	AC	AU	TD	SC	CE	RV	DI	AR
City Saarbrücken	65	5	24	3	6	3	7	10	1	2	3	1	0	3
City Solingen	42	5	14	2	4	2	9	2	0	2	2	0	0	2
City Stuttgart	63	8	17	3	7	3	11	10	0	2	2	0	0	3
City Wiesbaden	48	11	9	2	9	2	3	5	0	3	3	1	2	2
City Wuppertal	49	8	11	4	8	2	7	3	0	3	2	1	3	1
<b>Switzerland</b>														
Federation	7	1	4	1	1	0	0	0	0	0	0	0	0	0
Canton Aargau	28	7	12	2	1	2	3	0	0	0	0	1	1	0
Canton Basel-Stadt	27	6	8	3	2	2	4	1	0	0	0	1	1	0
Canton Basel-Land	8	3	2	1	0	0	0	0	0	2	0	0	0	0
Canton Freiburg	4	2	0	0	0	0	0	0	0	2	0	0	0	0
Canton Graubünden	4	3	0	1	0	0	0	0	0	0	0	0	0	0
Canton Luzern	8	3	2	0	1	1	0	1	0	0	0	0	0	0
Canton Obwalden	6	1	3	1	1	0	0	0	0	0	0	0	0	0
Canton St. Gallen	15	5	2	1	1	3	1	2	0	0	0	0	0	0
Canton Thurgau	8	2	3	1	0	1	0	1	0	0	0	0	0	0
Canton Uri	17	3	8	2	0	1	0	0	0	0	2	1	0	0
Canton Zürich Land	9	6	1	1	0	1	0	0	0	0	0	0	0	0
City Zürich	11	3	1	1	1	1	2	0	0	1	0	1	1	0

Abbreviations for regulatory fields: governments' role as owner and exercise of owner rights (OW); board (BD) and sub-fields directors (BD-D) and executive directors (BD-ED); risk management, internal audit, and compliance management (RM); accounting and financial statements (AC); external audit and public financial control (AU); transparency and disclosure on the enterprise's website (TD); scope (SC); comply-or-explain principle and Declaration of Compliance (CE); review (RV). Abbreviations for policy topics: diversity (DI); appropriate remuneration (AR). In addition to regulatory fields, certain criteria are also assigned to policy topics to offer an additional perspective on the diffusion of governance standards; the scores for policy topics therefore do not add to the total score.

standards into their PCGCs to gain legitimacy. In the literature, the adoption of new practices is also referred to as diffusion (Aguilera & Cuervo-Cazurra, 2009; Cuomo et al., 2016; Haxhi & Van Ees, 2010; Johanson & Østergren, 2010; Terjesen et al., 2015; Zattoni et al., 2020).

Coercive pressures result from “resource dependence and legitimacy concerns” (Judge et al., 2010, p. 163) in relation to institutions that can force organizations to adopt new practices. In the context of this study, coercive pressures could stem from (public) banks or higher-ranking public authorities, which could make the allocation of financial resources dependent on the adoption of governance standards into PCGCs.

Mimetic pressures arise from uncertainty, which, as “a powerful force for imitation” (Böhm et al., 2013, p. 7), leads organizations to imitate other organizations that they view as successful and legitimate (Judge et al., 2010). In the context of this study, uncertainty arises from existing challenges related to the corporate governance of SOEs (Klausen & Winsvold, 2021; Voorn et al., 2019).

Normative pressures refer to “collective values that bring about conformity of thought and deed within institutional environments” (Judge et al., 2010, p. 164). They are characterized by “professional pressure to conform to established rules and norms” (Haxhi & Van Ees, 2010, p. 715). Values, rules, and norms generally play a major role

in the public sector and, hence, in the corporate governance of SOEs (Leixnering et al., 2021; Papenfuß & Schmidt, 2022).

Interpreting the low diffusion scores from the perspective of neo-institutional theory, coercive, normative, and mimetic pressures compel governments to adopt governance standards into their PCGCs only to a certain extent. As the extent of the diffusion varies considerably between PCGCs and between regulatory fields in PCGCs, coercive, normative, and mimetic pressures seem to differ between governments. It can be assumed that the pressures interact with government characteristics in that the latter either determine what type of pressures governments face or how they respond to them in terms of adopting—or not adopting—governance standards into their PCGCs. Moreover, pressures and governments' response to them seem to differ according to regulatory fields. Therefore, more research is needed to differentiate between coercive, mimetic, and normative pressures as potential drivers for diffusion and to better understand how they interact with code issuers' characteristics.

## 5.2 | Limitations

Like all empirical studies, this study has some limitations. First, the analysis includes three central European countries with similar legal

and administrative traditions and economic systems, the latter of which differ substantially from others around the world (Witt et al., 2018). Thus, the generalizability of the findings is limited. Still, in contrast to single-country studies, this study provides innovative and useful comparative insights. Second, diffusion was measured at a single point in time; hence, this study cannot provide insights about convergence or divergence of corporate governance regulation and practices (Yoshikawa & Rasheed, 2009). Third, the current research design does not allow to explain the differences in the diffusion of governance standards. Still, the findings provide a helpful basis to open the relevant research field of PCGCs for future corporate governance research and invite scholars to enhance the theoretical understanding of corporate governance codes and related issues through the exploration of PCGCs.

### 5.3 | Propositions for future research

By developing propositions from its empirical findings, the study aims to invite corporate governance scholars to consider debates in neo-institutional theory on coercive, mimetic, and normative pressures and how they interact with code issuers' characteristics to affect the diffusion of corporate governance standards. According to the literature, the characteristics of code issuers play an important role in this regard (Aguilera & Cuervo-Cazurra, 2009; Cuomo et al., 2016; Haxhi & Van Ees, 2010). To generate the necessary data, researchers could use data from this study, or the developed measurement framework or single regulatory fields to generate further data.

The development of the propositions focuses on the following government characteristics: government level, political affiliation of the government head, and PCGC revision, which can be considered a government characteristic because it indicates governments' innovativeness. These three characteristics are particularly well suited to advance theory-building in neo-institutional theory by enhancing the understanding on their interaction with coercive, mimetic, and normative pressures.

The first two propositions concern the government level, which determines governments' tasks and responsibilities as well as their capacity to fulfill them. Comparing the findings according to government level yields particularly interesting results regarding different regulatory fields. Regarding overall diffusion, the findings show a higher overall diffusion score for PCGCs of local governments (48.8) than for PCGCs of federal/state governments (44.4). Considering the specific context of this study, this difference can most likely be explained by mimetic pressures as is outlined below.

Previous research has focused on federal or central governments as code issuers (Aguilera & Cuervo-Cazurra, 2004) even though local governments own a majority of SOEs (van Genugten et al., 2022; Voorn et al., 2017). Moreover, according to the identified diffusion differences, the corporate governance and ownership understanding differs between local governments and federal/state governments. The diffusion scores imply that local governments define a more extended ownership role for themselves and adopt more governance

standards, for instance, regarding the board, on which they are often represented as directors.

Local governments deliver key public services to citizens, seek to meet their demands, and must be accountable to them for the cost, quality, and wider impact of public services on local societies (Korac et al., 2017; Leixnering et al., 2021). Because shortcomings in the corporate governance of local SOEs have immediate and tangible consequences for public budgets and service provision for citizens, for whom local governments compete with other local governments to maintain revenues (Klausen & Winsvold, 2021; Korac et al., 2017; Voorn et al., 2019), they have a strong interest in avoiding them. At the same time, local governments have few financial, material, and human resources and only limited regulatory options for the corporate governance of SOEs.

It can be assumed that local governments are under higher mimetic pressures than federal and state governments because they face uncertainty as to how they should respond to challenges related to the corporate governance of SOEs. This uncertainty leads local governments to imitate other local governments that they view as successful and legitimate (Böhm et al., 2013; Judge et al., 2010). Mimetic pressures are likely to be lower for federal and state governments than for local governments because, being further away from citizens, they face fewer direct consequences of shortcomings in the corporate governance of their SOEs. Therefore, mimetic pressures can be assumed to compel local governments to adopt more governance standards into their PCGCs than federal and state governments. This leads to the following proposition:

**Proposition 1a.** Overall diffusion of internationally recognized governance standards is higher in PCGCs of local governments than in PCGCs of federal and state governments due to mimetic pressures.

While PCGCs of local governments have higher overall diffusion than PCGCs of federal/state governments, it is interesting to see that the latter have higher diffusion scores, for instance, in the regulatory field of transparency (0.8 and 0.2, respectively). Here, normative pressures seem to be the most likely explanation because they affect especially federal/state governments, who as code issuers for private sector companies strive for legitimacy in this regulatory field.

In their role as regulators for the corporate governance of private sector companies, federal and state governments emphasize the importance of regulation regarding corporate reporting. Because transparency regulations have become established, normative pressures can arise from employees, who exert professional pressure for these regulations to be adopted also for SOEs (Haxhi & Van Ees, 2010; Judge et al., 2010). This is not the case for local governments because they do not issue regulation for private sector companies. Normative pressures are therefore likely to compel federal and state governments to adopt more governance standards in regulatory fields that they also regulate for private sector companies than local governments. This reasoning leads to the following proposition:

**Proposition 1b.** Diffusion of internationally recognized governance standards in the regulatory field of transparency is higher in PCGCs of federal and state governments than in PCGCs of local governments due to normative pressures.

The next two propositions concern the political affiliation of government heads. In view of an ongoing debate about whether political ideologies influence corporate governance regulation and practices (Lester et al., 2008; Terjesen et al., 2015), it is worthwhile investigating whether coercive, mimetic, or normative pressures in interaction with the political affiliation of government heads affect the diffusion. The political affiliation of government heads is particularly interesting to investigate because government heads are very influential. They lead the administration or cabinet that decides on PCGC adoption or presents a PCGC to be decided upon by the council or parliament. Interestingly, overall diffusion of governance standards is higher in PCGCs of left-wing governments (50.4) than in PCGCs of right-wing governments (40.8). Considering coercive, mimetic, and normative pressures, this difference can most likely be explained by mimetic pressures as is outlined below.

Left-wing and right-wing parties differ in their understanding of the government and its role. Left-wing parties ascribe to the government a more extended role in public service and infrastructure provision to ensure equity (Andrews et al., 2020). They are also more inclined to use regulation to achieve their political goals (Höpner, 2007). These goals relate to issues such as sustainability, climate protection, and gender equality, which left-wing parties first introduced to the political agenda (Terjesen et al., 2015).

Both left-wing and right-wing governments face mimetic pressures arising from uncertainty, which lead them to imitate other governments that they view as successful and legitimate (Böhm et al., 2013; Judge et al., 2010). Left-wing governments will therefore imitate other left-wing governments and their PCGCs, which are likely to contain more governance standards because of left-wing governments' promotion of more regulation (Höpner, 2007). Imitation due to mimetic pressures can thus be assumed to perpetuate higher diffusion of governance standards in PCGCs of left-wing governments as compared to those of right-wing governments. This reasoning leads to the following proposition:

**Proposition 2a.** Overall diffusion of internationally recognized governance standards is higher in PCGCs of left-wing governments than in PCGCs of right-wing governments due to mimetic pressures.

The following proposition looks at the regulatory field of comply-or-explain because PCGCs of left-wing governments have considerably higher diffusion than right-wing governments (2.5 and 1.7, respectively). This difference can most likely be explained by normative pressures.

There are different approaches towards policy-making associated with right-wing and left-wing governments, which are “equality of

opportunity’ versus ‘equality of results’” (Terjesen et al., 2015, p. 243). For instance, gender quotas are an example of the “equality of results” approach associated with left-wing governments, aiming to create a level playing field for companies regarding diversity (Terjesen et al., 2015). Thus, compared to right-wing governments, left-wing governments are likely to be compelled by normative pressures to adopt more governance standards regarding the comply-or-explain principle into their PCGCs. This leads to the following proposition:

**Proposition 2b.** Diffusion of internationally recognized governance standards in the regulatory field of comply-or-explain is higher in PCGCs of left-wing governments than in PCGCs of right-wing governments due to normative pressures.

The final two propositions concern PCGC revision. The finding that revised PCGCs have higher overall diffusion (52.8) than non-revised PCGCs (42.0) can most likely be explained by mimetic pressures.

PCGC revision can be considered a government characteristic because it indicates governments' innovativeness, as such a revision allows for changes or innovations in the governance of SOEs. Previous research defines “the development and adoption of a code [...] as a country innovation signaling the country's commitment to improve its corporate governance system” (Aguilera & Cuervo-Cazurra, 2004, p. 418). PCGC revision can thus be seen as governments' continuing commitment to innovation and acknowledgement of the need to account for new developments and changes in the corporate governance of SOEs, the latter of which has been highlighted by standard-setters (Expert Commission G-PCGM, 2022; OECD, 2015).

When facing uncertainty, governments imitate other governments that “have found a viable solution to the changes” (Korac et al., 2017, p. 570). Thus, PCGC revision is likely to result in the adoption of governance standards that have already been proven to be successful elsewhere. Mimetic pressures can therefore be assumed to compel governments that revise their PCGCs to adopt more governance standards into their PCGCs than governments that do not revise their PCGCs. This leads to the following proposition:

**Proposition 3a.** Overall diffusion of internationally recognized governance standards is higher in revised PCGCs than in non-revised PCGCs due to mimetic pressures.

Furthermore, it is interesting to see that the diffusion in the regulatory field of owner is nearly the same in revised and non-revised PCGCs (5.5 and 5.3, respectively). This can most likely be explained by normative pressures as is outlined below.

Normative pressures could strengthen the effect of path dependencies through imitation and conformity with “established rules and norms” (Haxhi & Van Ees, 2010, p. 715; see also Böhm et al., 2013). Path dependencies cause the diffusion to slow down and are often

due to reservations over changes that may disrupt the interaction between standards or cause a shift in the balance of power between actors (Zattoni & Cuomo, 2008). They are likely to exist for governance standards regarding the owners because changes directly affect the power of governments over their SOEs (Voorn et al., 2019). In cases of path dependencies, normative pressures can therefore be assumed to compel governments that revise their PCGCs to hold to established governance standards rather than adopt new ones. This reasoning leads to the following proposition:

**Proposition 3b.** Diffusion of internationally recognized governance standards in the regulatory field of owners is not higher in revised PCGCs than in non-revised PCGCs due to normative pressures.

In addition to the government characteristics considered above, there are several other important characteristics and contextual factors that future research should consider in the context of the diffusion of governance standards in PCGCs. Examples are, for instance, scandals, public blaming, and leadership.

Moreover, it seems promising to explore the political affiliation of more actors beyond the government head, such as party leaders in local councils and parliaments and the chief financial manager. It could also be interesting to take into consideration whether the government head and the majority party in the local council or parliament have the same or a different political affiliation, potential changes of the party in power, or stable political conditions over time. Such research would be insightful for debates on the influence of political partisanship on corporate governance, decision-making, and the performance of both SOEs and private sector companies (Apriliyanti & Randøy, 2019; Chin et al., 2021; Tihanyi et al., 2019).

Beyond the theoretical focus of this study regarding neo-institutional theory and legitimacy reasons, it would be worth examining efficiency reasons in future research like in previous studies (Aguilera & Cuervo-Cazurra, 2004; Ponomareva et al., 2022; Zattoni & Cuomo, 2008). For instance, the context of code revision could allow researchers to disentangle efficiency and legitimacy reasons behind the adoption of governance standards in different regulatory fields.

Future research could also use the measurement framework and findings of this study for assessing the effects of the varying diffusion of governance standards in different regulatory fields. For instance, the diffusion score for the policy topic of diversity could be used to assess whether diffusion differences affect the composition of boards of SOEs or the behavioral control of relevant actors (e.g., owners, executive directors). Comparative research on the effects of PCGCs, which are still largely unexplored (Papenfuss & Schmidt, 2021), is also promising for future research with regard to debates on what corporate governance codes for private sector companies could learn from PCGCs (Benz & Frey, 2007) and whether governance standards from PCGCs would have intended effects, if adopted to corporate governance codes for private sector companies.

## 6 | CONCLUSION

Considering debates in the literature, as well as the continuing governance and accountability challenges related to government ownership, the diffusion of internationally recognized governance standards for SOEs is an important and promising topic for corporate governance research across ownership contexts. Governments design PCGCs for their SOEs very differently, showing a differing understanding of corporate governance and government ownership.

By developing and applying a comprehensive measurement framework with 150 criteria, this study shows that the diffusion of governance standards varies considerably between both PCGCs and regulatory fields (e.g., directors, auditing). The findings imply the need for comprehensive and differentiated approaches to gain a nuanced theoretical understanding on the diffusion and underlying mechanisms. Derived from the findings and neo-institutional theory, the study develops propositions about potential drivers of diffusion differences that can be tested by future research by using the developed measurement framework or single regulatory fields in international comparisons of different countries.

Governments, standard-setters, and other relevant actors (e.g., directors, auditors) could use the measurement framework for condensed overviews, implementing or revising codes, and reflecting on governance practices.

PCGCs are promising research objects, and the developed measurement framework and the empirical insights of this study hope to support future theory-building with regard to various corporate governance questions. Scientific research could also help raise awareness of the potential of PCGCs to foster good government ownership of SOEs, which constitute an especially challenging field of corporate governance with extraordinary importance for citizens and society. Amongst further aspects, the developed measurement framework can help identify patterns in PCGCs' content and crucial triggers for responsible and sustainable corporate governance of SOEs and their performance for providing public services for society and citizens.

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## CONFLICTS OF INTEREST

The authors have no relevant financial or non-financial interests to disclose.

## DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

## ORCID

Ulf Papenfuß  <https://orcid.org/0000-0002-1326-7391>

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#### AUTHOR BIOGRAPHIES

**Ulf Papenfuß** is professor of Public Management & Public Policy at Zeppelin University, Friedrichshafen, Germany. His research focuses on public corporate governance and integrated digital governance in corporate group/network structures and integrated steering of administrations and their arm's length government bodies/enterprises in policy fields. Ulf Papenfuß is scientific chair of the Expert Commission of the German Public Corporate Governance-Modelcode, which is also available in English.

**Kristin Wagner-Krechlok** is a research associate at the Chair of Public Management & Public Policy at Zeppelin University, Friedrichshafen, Germany. Her research focuses on public corporate governance codes for state-owned enterprises and the use of performance and sustainability information in the corporate governance of state-owned enterprises at the local government level.

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