

IL GOVERNO AZIENDALE TRA TRADIZIONE E INNOVAZIONE

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ESTRATTO

**III - BILANCIO
E COMUNICAZIONE
FINANZIARIA, ECONOMICA
E SOCIALE**

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**Società Italiana di Ragioneria
e di Economia Aziendale**

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SOMMARIO

LUCIANO MARCHI Introduzione	p.	5
KATIA CORSI, ELISABETTA MAGNAGHI, DANIELA MANCINI Tradizione e innovazione della comunicazione non finanziaria: la "prontezza" delle società quotate all'adozione della Direttiva 2014/95/UE	»	7
ALESSANDRO LAI, SILVIA PANFILO, RICCARDO STACCHEZZINI The governance of risks, state accountability and the rhetoric of accounting: a case study	»	29
SIMONA ALFIERO, MASSIMO CANE, PAOLA DE BERNANRDI, FRANCESCO VENUTI Investigating risk disclosure practices in European listed companies. What's going on about reputational risk?	»	47
VINCENZO FASONE, ELISA RITA FERRARI, DEBORAH GERVASI L'integrated reporting alla luce del framework internazionale. Prime evidenze dall'esperienza italiana	»	71
ANTONELLA SILVESTRI, STEFANIA VELTRI Evaluating the integrated report quality	»	91
GIUSEPPE IANNIELLO, MICHELA PICCAROZZI, ALESSANDRA STEFANONI Analisi del contenuto dei sustainability report dei produttori di batterie per veicoli elettrici	»	109
FRANCESCO BADIA Rilevanza del capitale intellettuale e sua incidenza sui valori di mercato nelle grandi imprese quotate italiane: elementi di misurazione e rendicontazione	»	125
FEDERICA DE SANTIS Factors affecting the role of auditors in practice: a field study	»	145

Il termine "governo aziendale", in chiave prescrittiva, sintetizza la capacità di guidare l'azienda in condizioni di economicità durevole, mediante il coordinamento delle operazioni di gestione e la composizione delle forze interne ed esterne. In tale prospettiva, si intende porre l'attenzione sul carattere economico del governo aziendale e sul contributo offerto dagli studi di Ragioneria e di Economia Aziendale.

Si ritiene, in particolare, che il governo aziendale si realizzi a partire dall'osservazione della dinamica aziendale e ambientale, ma presupponga anche la capacità di generare, su quella base, conoscenza e di guidare i collegati processi gestionali ed organizzativi.

L'integrazione informativa e la generazione di conoscenza si formano sul passato ma devono guidare il futuro, spingono i sistemi di governo aziendale all'innovazione dei prodotti e dei processi aziendali, per far fronte al contesto ambientale sempre più complesso e turbolento, ma senza perdere i valori di fondo della tradizione e della cultura aziendale. L'integrazione informativa, gestionale e organizzativa si accompagna dunque all'integrazione tra innovazione e tradizione e determina le diverse prospettive del governo aziendale e della creazione di valore.

A tal fine il volume si articola nelle seguenti sezioni:

- 1) Bilancio e principi contabili;
- 2) Valutazione d'azienda;
- 3) Bilancio e comunicazione finanziaria, economica e sociale;
- 4) Controllo di gestione, costi-performance;
- 5) Reti e controllo relazionale;
- 6) Strategie di sviluppo, risanamento e cooperazione;
- 7) Governance e controlli interni;
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Strat. Environ.]. Vol. 10,

orting: developments and
Development, 3(1), 51-

Responsibility: A Theory
Management Review 26, no. 1
398.

truction: towards a new
ing, *Organizations and*
o. 1: 37-73.

S. (1997) "The Evolution
oratory Study of Finnish
nd Society, Vol. 36 No. 3,

98), "Managing public
ual reports", *Accounting*,
55-282

te Social and Financial
Studies, vol. 24, no. 3,

n, M. (2000), "The New
apture or the Agenda of
iew, Vol. 9 No. 1, pp. 81-

y and Society: The Link
ite Social Responsibility.

mental performance and
ccounting, *Organizations*

er, 2013. "Sustainability
alysis on a World-Wide
i, Vol. 120 (1): 1-11.

ing and the corporate ego.
p. 254-265.

Organizational legitimacy
h *Journal of Management*,

THE GOVERNANCE OF RISKS, STATE ACCOUNTABILITY AND THE RHETORIC OF ACCOUNTING: A CASE STUDY

Alessandro Lai¹, Silvia Panfilo², Riccardo Stacchezzini¹

1. Introduction

State and public authorities deal with public interest protection. Public interest concept seems to embody a common understanding of which conditions in the public sector and society will be to the benefit of the majority of people; it is understood as composed by a multitude of social sub-interests such as education, health, work, etc. State therefore could face critical situations in which the whole public interest or its components are put at risk. Specifically, when public interest is at risk we can distinguish among "social and societal risks" (Asenova *et al.*, 2015). According to such a distinction, social risks are those which are the focus of social policy such as unemployment risk, while societal risks are those emphasizing the macro-level dimension and the public nature of these risks, such as environmental and health. Controversial situations in which social and societal risks are in contrast can dramatically affect public interest. Thus, such a contrast becomes the focus of state preference in governing social or societal kind of risks generally excluding the other one and therefore threatening the whole public interest aim. Generally, risk government can be considered in terms of "potential harms and probabilistic outcomes" (Ericson, 1997) subtending the need for calculative technologies or practices - quantification tools and methods of calculation - and their key role.

Several theorists have taken up Michel Foucault's writings on governmentality (for all Burchell *et al.*, 1991) to explore how governmental bodies govern - that is to manage and regulate - populations via risk discourses and strategies (Lupton, 1999b). In sociological studies, and therefore also according to the governmentality perspective, risk is understood as synonymous of danger (Douglas, 1986; Lupton, 1999) and risk governance is analysed as aligned to governmentality literature about the assemblages of practices, techniques and rationalities (Miller and Rose, 1990). Assuming that also calculative technologies related to risk can be

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invested with different rationalities, "sets of purposes" (O'Malley, 1996), the paper aims to explore how calculative technologies, with their rhetoric, inform the decisions on social and societal risk governance. Following Foucault's governmentality, the present paper analyses a case in which the Italian State made a decision on an organization to indirectly govern a situation of evident contrast between social and societal risks affecting people who live and work in the company's area. In particular, the paper focuses on the case study of Ilva S.p.A., an Italian steel company forced to stop its production as accused of environmental crimes by the Italian Magistrature. Few months later, however, the Government allowed to restart the production and substantially gave prevalence to social risks than societal ones.

The study benefits from an analysis based on official documents promulgated by the main authorities involved: Italian Magistrature and Government which made the contrasting decisions on the company activities. We distinguished between decisional documents, just reporting the measure to adopt about implicated risks (such as environmental, health and occupational) and supportive documents produced by technical experts. The analysis focuses more on supportive documents to identify which social and societal issues are at risk and to verify whether and in which way calculative technologies convey risk discourses. From the findings it emerges that risk discourses are rhetorically informed by calculative practices. Specifically, Italian Government decision, aiming at the public interest, seems to be rhetorically oriented towards the discourse having greater relevance - social risk discourse - as attributed by calculative practice while not excluding in its decision the judgment on the societal one.

The paper contributes to analyse a situation in which social and societal risk discourses are contrasting: identifying the key role of calculative technologies in orienting decisions on them, and answering the need to analyse such calculative practices as rationales and technologies to understand the governing of economic and social life (Miller, 2008). The paper is articulated as following: next section analyses the governmentality framework and how risk is conceived within it; the third section explores the case study at the base of the analysis; the following one describes the methodology used to identify empirics developed deeply in the fifth section; and finally discussion, conclusions and ideas for future research are presented.

2. Risk and governmentality

Socio-cultural theories identified as risks are broadly thought as involving threat, hazard, danger or some form of harm (Lupton, 1999a). Risks emerging from wealth production by organizations and institutions have come to dominate public concern and social policy (Beck 1992). State is indeed seen to have a particular capability for governing risks because of its size and motivation (Froud, 2003). The Government, drawing on its public mandate, understood risk as something to be governed rather than simply managed (O'Regan and Killian, 2014). The notion of government draws attention to the diversity of forces and groups that, in heterogeneous ways, regulate the lives of individuals and the conditions within particular national territories in pursuit of various goals (Rose and Miller, 1992). Furthermore, state decisions and actions, oriented to the government of economic and social life need to have an explicit or implicit public rationale (Watts and Zimmerman, 1979) – or in other words they need to be public interest oriented. Considering public interest as composed by different social and societal sub-interests, it may happen these two macro-categories are in contrast putting at risk the overall public interest aim. It follows that in such a case, within the state sphere, risk governance implies to implement measures for placing public interest at the heart of the debate.

The paper follows Foucault's writings on governmentality. Foucault (1979: 20) argued it is an “ensemble formed by the institutions, procedures, analyses and reflections, the calculations and tactics, that allow the exercise of this very specific albeit complex form of power”. This notion fits with a situation of government intervention on contrasting social and societal risk discourses involving in the debate different public bodies. The governmentality perspective, working on the discursive construction of reality, offers the most relativist position on risk according to which “nothing is seen to be a risk in itself” (Ewald, 1991: 199), rather, events are constructed as risks through discourses. Governmentality scholars are, therefore, interested in investigating the forms of knowledge, the dominant discourses and expert techniques and institutions that serve to render risk calculable and knowable, bringing it into being (Lupton, 1999b). In this view, risk is created through discourses, strategies and practices of institutions and takes the form of a calculative rationality that is tethered to assorted techniques for the regulation, management, and shaping of human conduct in the service of specific ends and with definite, but to some extent unforeseen, effects (Lupton 1999a; 1999b).

Main producers of risk are considered to be the central institutions of late modernity - government, industry and science (Lupton, 1999c). State exerts

power over the bodies of its citizens through risk discourses directly acting upon people or impacting on intermediate levels such as those of organizations and other entities. Typically, organizations are deeply implicated in risk discourses: in fact, risks are produced, assessed and managed within them and through them (Gephart *et al.*, 2009; Hutter and Power, 2005; Power *et al.*, 2009). Organizations expose employees and other stakeholders to various forms of financial, environmental, and health risks (Edwards *et al.*, 2008) while being exposed themselves to regulatory, reputational, and operational risks (Scheytt *et al.*, 2006; Scott and Walshman, 2005). In public sphere, risk discourses have evolved particularly related to the government of health issue. In that context, risk discourse is seen as an environmental hazard, such as pollution or toxic chemical residues.

Government agents assemble and analyse information about risks and render risks calculable and governable (Lupton 1999b: 87) generally through the work of “experts” (Gephart *et al.*, 2009). Within public context experts are seen to “assess” risks while lay people are considered to have “perceptions” on them - a distortion of “actual” risk as defined by experts (Jasanoff, 1998; Gephart *et al.*, 2009). Lay perception is therefore “subjective,” whereas expert technical assessment is assumed to be objective. Thereby, through professional languages and analytic practices institutions that master relevant formal discourses can create authoritative knowledge about risk (Jasanoff, 1998: 94). It follows, therefore, the key role of calculative technologies³ used by experts in dealing with risk. However, as Miller and Rose (1990, 1992, 2008) have suggested, rationales and technologies of calculative practices need to be analysed conjointly to understand the governing of economic and social life. It is important to be aware of the tie deriving from distinguish the discursive character of governmentality objectives from the technologies - pre-eminently calculative practices - used for seeking to act upon people and entities (Miller and Rose, 1990; Rose and Miller, 1992). Thereby quantification becomes a way of making decisions without seeming to decide (Porter, 1996): it indeed represents the “technological dimension” of government associated, however, to rationales behind its mere use. Accounting, consequently, is a language which involves not objective fact-gathering but a process of communication among a variety of contending interpretations (Lavoie, 1987). Calculative technologies therefore are not just mere quantification tools but, given their deeper and often implicit rationales, they can act as

³ In the text calculative technologies and practices are used as synonymous terms. They are understood, at the aim of the analysis, as measurement and accounting tools providing narrative and non-narrative information about social and societal risks.

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rhetorical tools that can influence reasoning, discourses and decisions. Generally, numbers can be utilized in matters of probability to convey a notion of risk (Rose, 1991) but the techniques through which risk become visible can be attributable to the use of broader “calculative practices” (Miller, 2001): from statistics, sociology and epidemiology to management and accounting (Dean, 1999). Risk therefore is considered true as it becomes visible (Lupton, 2013), through calculative practices, constituting a theoretical basis for decision-making (Douglas, 1991: 198). Risk becomes therefore “identifiable through scientific measurement and calculation, and [can] be controlled using such knowledge” (Gephart *et al.*, 2009). The predictable consequence in a context of a risk governance composed by different public bodies is that “all institutions involved consult their own experts” (Douglas, 1991: 210). Accounting tools in such situations can rise to mediate between divergent interests in an organized endeavour, to legitimize and justify particular stances and, above all, to create a symbolic structure within which *discourses* could take place and through which action could be achieved (Burchell *et al.*, 1980). Thus, it emerges - from previous literature analysed - a subtle bond between accounting, risk and public interest. The latter, government’s social aim, is understood as constituted by social and societal issues; when they are contrasting, public interest is at risk and the State has to act cautious risk government. Whether social and societal risks in addition involve different risk governance actors, the task is even more complex. Assuming that events are constructed as risks through discourses and that risk is “true” insofar as its existence is made visible because it can be determined through the application of scientific measurement and analytical reasoning (Lupton, 2013), it appears how calculative technologies can help to structure the governmental process to find a basis for the solution. Furthermore, considering calculative technologies are also constituted by implicit rationales behind their mere use, it follows the possibility for calculative technologies to rhetorically inform the debate on risk discourses, making arise the research question: **How the calculative technologies have informed Italian government decision on social and societal risk governance in the Ilva case?**

3. The Ilva case: history and context

Ilva S.p.A. is an Italian iron and steel factory established in 1905; it was the first iron factory using the integrated cycle technology production. For a long period (1921 – 1995) it was a public-owned company; in 1961 the decision to establish the biggest plant in Taranto, changing the name in Italsider. In 1995 the company was sold to the Riva’s family who decided to

come back to its original name. Nowadays, the Taranto plant is the second one for size in the European steel industry and it belongs to the fourth European industry group.

Ilva's law troubles begun in 2012 when legal measures - deriving from public inquiries about the environmental disaster caused by its business activities - were taken. Everything started in 2010 when 600 animals of a farm were abated because having three times the allowed level of dioxin in their blood. Following that, the Magistrature started immediately inquiries to understand which damages could have provoked the accumulation of such dangerous substance. Successively, other 13 farms were forced to abate their flocks.

The story of Ilva is controversial, involving also corruption accuses as emerging from inquiries. This claim allows to understand the crucial positive event that was an Environment Ministry decree, in 2010, which increased the limits of dioxin. According to the decree: even if a company had values over the legal emissions benchmark until that moment, they would have been considered respected for three years more. However, the same ministry during the summer of the same year, in accordance to European standards, required a new environmental integrated authorization: the so called A.I.A. According to it, a steel plant for being permitted to produce needed different interventions in respect of the environment. AIA was granted to Ilva on the 20th July 2011, thereby authorizing its activities and prescribing that the functioning of the plant had to occur in the respect of the interventions and emissions' limit values indicated or requested in the measure itself. After the inquiries started by the Magistrature, a protocol agreement for urgent environmental recovery and requalification measures for Taranto's area was signed on the 26th July 2012 by: Environment, Infrastructure, Economic development and Local cohesion ministries; Puglia Region; Taranto province; Taranto district; and the commissioner for Taranto's harbour. On the same day, Magistrature inquiries have been concluded with the measure forcing the stop of Ilva's production due to the demonstrated accuse of environmental disaster. The magistrate, basing her decision on a note made by NOE⁴ and on two different evaluation reports (a chemical and an epidemiological ones) attesting dangerous and out of control emissions, unloading powders and toxic waste in contact with the aquifer, did not hesitate to stop the steel factory attesting that "the company has been polluting for years and put at risk the citizens' health since 1995 pursuing just a profit logic". Following, the company entrusted the management to

⁴ NOE is the the Italian Police Ecological Operative Unit.

judicial keepers with the first aim of turning off the blast furnaces. Numerous were the depositions in front of Parliament and Government commissions to describe the company situation in terms of performance, production, capacity and environmental impacts. Following a series of depositions and in contrast with the Magistrature decision, in October the Environment Ministry promulgated a decree bearing prescriptions at the aim of guaranteeing – prior execution of significant interventions to hot area machineries – the business continuity allowing in addition that the management of the company could come back into the owners' hands (Riva family).

The Magistrature decided to intervene in November emanating the requisition of the production. Nevertheless, following all these events on the 3rd of December the Government emanated a decree according to which Ilva S.p.A. was declared a Strategic National Interest Site (S.I.N), establishing the business continuity for a period not superior to 36 months and subjected to the condition that A.I.A. prescriptions were applied.

On the 5th of December public prosecutor's office took a measure according to which sequestered plants could come back to Ilva's ownership and, finally, at the Christmas's Eve 2012 the decree establishing the Ilva business continuity became law, prevailing on the Magistrature previous decisions.

Nevertheless, Ilva's problems have been continued also after 2012. Main successive events were: Bankruptcy Court declared the insolvency of the company which moved into extraordinary administration in January 2015; governmental issue of the ninth decree opting for the company's sell to a new company; 80% of the A.I.A. prescriptions realized at the 07/31/2015 and European emission limits respected; the European Commission started an inquiry about the state assistance in January 2016; acceptance of the appeal of 182 Taranto's citizens opening a lawsuit against the Italian State accused to not have protected the health of its citizens in May 2016 by European Human Right Court.

Table 1. Magistrature and Government's roles about societal and social risks during the period 2010-2012

	Occurred events
Magistrature inquiries	Magistrature started inquiries in 2010 to understand the cause of three times dioxin value in 2.000 animals abated for that reason. Magistrature asked for: - Ecological Operative police Unit note (2 nd July 2011); - Chemical appraisal (2012); - Epidemiological appraisal (2012).
Magistrature following injunctions	<ul style="list-style-type: none"> • Ilva's production stopped (26th July 2012); • Ilva's management moved to judicial keepers (26th July 2012); • Requisition of the company production (November 2012).
Government investigations and company reply	<ul style="list-style-type: none"> - Inquiry Parliament Commission about waste cycle illegal activities (from 26th July 2012); - Company's management depositions in front of Parliament and Senate (from 26th July 2012).
Governmental verdicts and regulations	<ul style="list-style-type: none"> • Decree approval about the extension of dioxin legal limit (summer 2010); • Environmental Integrated Authorization (AIA) introduction (summer 2010) • Protocol agreement for urgent environmental recovery and requalification measures for Taranto's area (26th July 2012); • Decree approval about Ilva business continuity (October 2012); • Decree approval about sequestered plants return under Ilva's control (5th December 2012); • Law establishing Ilva as a Strategic National Site (24th December 2012).

4. Methodology

The paper relies on official documentation on ILVA produced by the Italian magistrates, the Italian government and the experts in the period 2010-2012. This period goes from the first Magistrature inquiries (2010) to the Italian government decision to allow the ILVA business continuity. The documentation issued by magistrates refers to the ILVA's stop measure, dated July 26th, 2012, and the requisition of goods (November, 2012). The documentation produced by the Italian government refers to the Decree of Environment Ministry that allowed ILVA to continue its activity, and the State Law that declared ILVA as Strategic National Interest Site and established the company business continuity (December 24th, 2012). Both return to experts which have a risk assessment task at the aim of supporting the decision-making process. The documentation issued by the experts contains the result of technical analyses that these latter developed on

environmental, health and economic issues related to ILVA activities. This documentation refers for example to the “cancer book 2012” issued by Local Health Agency (“ASL”) and the Regional Environmental Protection Agency (“ARPA”), the “Technical report for the analysis of pollution in the Tamburi’s district 2012” issued by ARPA. Further details are reported in Table 2.

Table 2. Official documents included in the analysis

	Institution	Document name	Date
Supportive Documents	ISPRA - IPPC Investigation Commission	A) Decisive opinion	October 2012
	Regional Environmental Protection Agency (ARPA)	B) Environmental data relation about Taranto’s area 2009 C) Benzoapirene (BaP) analysis 2010; D) Environment and safety analysis 2011; E) Technical report for the analysis of pollution in the Tamburi’s district 2012; F) Dioxin emissions from E312 stack; G) ILVA agglomeration plants emissions chronology H) Health damage assessment SENTIERI project 2012	2009 - 2010 - 2011 - 2012
	Local Health Agency (ASL) and ARPA	I) Cancer books 2012	2012
	Judge for the preliminary inquiries (GIP)	L) Chemical appraisal M) Epidemiological appraisal	2012
	Lecce’s NOE	N) Note prot. 41/10	07/02/2011
	Inquiry Parliament Commission about waste cycle illegal activities	O) Regional relation P) Ferrante’s audition Q) Economy Minister audition	10/18/2012 08/06/2012 09/24/2012
Decisional Documents	Magistrature	R) Ilva’s stop production measure	07/26/2012
	Government	S) Environment Ministry Decree	October 2012
	Magistrature	T) Production’s requisition measure	November 2012
	Government	U) Decree modified into the 231/2012 law	12/24/2012

The majority of these documents are mentioned in the documentation issued by the Magistrature and the Italian government as they were used as technical supportive sources. As such, they are mentioned in the manuscript as supportive documents. Considering that the documentation on ILVA produced by the Italian magistrates and the Italian government only displayed the final decision while mentioning supportive documents as rationales for the decision, we focused our analysis on supportive documents. It is beyond our goal to assess if decisions made by public bodies are valid; rather, we aim to see how these decisions are oriented by risk discourses and how they are in turn informed by calculative technologies.

Firstly, the supportive documents have been analysed with the aim to identify risk discourses. Risk discourses, i.e. pieces of text in which reasoning on risk impact is developed, have been selected and categorized according to Asenova et al. (2015) classification of social and societal risks. In particular, the societal risk has been sub-categorized into environmental and health sub-risks, while the social risk into occupational and economic-strategic ones.

Extracts of risk discourses have been investigated with the aim to detect quantification devices associated with risk reasoning. We searched for numbers (e.g. benchmarks, target values, rates, averages, etc.) and various styles of non-numerical quantification (i.e. formulating quantity qualitatively; e.g. small, big, larger, etc.) used by experts to support their risk reasoning. We then explored how quantification devices informed discourses around the risk impact and highlighted the recurring themes associated to the various social and societal risks. Tables 3a and 3b offer just an example of the analysis developed on the supportive documents.

From a procedural point of view, the three authors singularly coded extracts and at the end of the procedure compared them selecting the ones perfectly matching, while they discussed the no matching extracts to completely share the final extracts' collection. We developed a "document analysis worksheet" containing sections in which to record coded extracts and identifying for each one the calculative practices used. Finally, we discussed emerging themes' regularity and variability ensuing from our analysis of risk discourses conveyed by numbers.

5. Findings: risk discourses and calculative technologies

The magistrature measure about the stop of the production is based on the following statement:

The Tribunal confirmed the preventive requisition of the areas and establishments indicated in decree emanated on the 07.25.2012 by the same magistrate, measure that is functional to the protection of preventive-protective needs indicated in the law (...omissis...) and in particular about the serious and current situation of environmental and health emergency suffered by the Taranto's territory, attributed to the pollutant emissions by Ilva factory, and by such plants and areas of the steel factory submitted to protective restriction.

While the Government's decision about the company, become law on the 24th of December, stated the following:

In case of a national strategic interest factory, identified with a Premier decree, when in it are occupied a number of subordinated employees, not smaller than 200 for at least one year, if there is the absolute need to safe employment and production, the Environment Ministry can authorize, at the moment of the re-exam of the integrated environmental authorization, the business continuity for a determined period not superior to 36 months and conditioned to the prescriptions contained in the measure of such an authorization, according the procedures and the indicated timing, at the aim of guaranteeing the most adequate environmental and health protection according to the best available techniques.

As emerging from the key extracts retrieved from decisional documents, Ilva case is a complex situation. Social and societal risk discourses seem contrasting and singularly supported in the opposite decisions made by the two bodies. The Government final decision, allowing the business continuity, prevailed against the previous one made by the Magistrature.

The analysis of the supportive documents shows both the societal and social risk discourses are based on calculative technologies which, overall, make emerge themes related to probability and magnitude in terms of certainty/uncertainty and high/low impact notions. On one side, a societal risk discourse comes out in technical evaluation reports which adopt calculative technologies for measuring environmental and health values generally in comparison to legal limits. Calculative technology measures are absolute and exact measures, average measures, estimations, ranges and benchmark levels (see Table 3a).

Table 3a. Emerging themes' example on societal risk discourse conveyed by calculative technologies

Risk category	Risk sub category	Extracts	Calculative technology measures	Themes
Societal	Environmental	G) ⁵ The first 2011 campaigns show values above the limit 0.4 ngTEQ/Nm ³ , with an annual output amounts of about 25 grams. After the better quality active carbon capture acquisition and the process management consolidation, the campaigns carried out during the winter months show a much lower value than 0.4 ngTEQ/Nm ³ (average values around 0.1 ngTEQ/Nm ³) with annual output estimated in 3.5 grams. The average values in recent campaigns (0.1ngTEQ/Nm ³) are significantly under the lower limits of the ranges indicated in the European document on best available techniques (0.5-5 ng/Nm ³) and they allow to consider solved the environmental issues due to the current emissions of the main dioxins source in Taranto (ILVA).	Absolute numbers; Exact measures; Average value; Estimations; Ranges; Benchmark.	Certainty Low impact
	Health	M) In the seven years of analysis, for Taranto as a whole, it is estimated that 83 deaths are attributable to exceedances of the limit of 20 micrograms per m ³ for the annual average concentration of PM10. For Borgo and Tamburi districts are estimated 91 deaths attributable to the exceeding legal limit.	Estimations; Decimal order numbers; Benchmark.	Uncertainty High impact

⁵ In tables 3a and 3b the capital letter next to the extracts corresponds to the documental source as indicated in Table 2.

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On the other side, a social risk discourse emerges in audition documents emphasizing, through the use of calculative technologies, the issues of unemployment, economic, and strategic risks in case of business closure. Calculative technology measures adopted within the social risk discourse are: absolute numbers, percentages, estimated costs and the use of thousand or even million order numbers (see Table 3b).

Looking at the technical appraisals' results, they mainly show an environmental pollution level having a decreasing trend but a high estimated number of dead people due to many type of emissions also attributable to the company. Therefore, the Magistrature, through a homogenous criteria based on comparing calculative technology measures to legal limit values, decided for the business closing. Aware of the societal risk discourse, however, Government in its decision took into consideration also the social risk. Nevertheless, the Government faced the problem that calculative technologies used within the societal and the social risk discourses were "incommensurable" and a mere comparison between them was not feasible due to uneven parameters.

Owing to the "value incommensurability issue" (Cohen and Ben-Ari, 1993) between social and societal risk, calculative technologies are not used to compare the two sides of the debate. Whereas, accounting is used by the Government to have a perception of the risk discourses' relevance, intended as a synthesis of emerging probability and magnitude themes. Thereby, accounting is adopted as a decisional support tool which become rhetorical due to calculative technologies incommensurability. Government indeed acted according to its legislating power defining the company a "Strategic Interest National Site" and using accounting to verify the devastating effects the business closure would have in terms of international strategy and economy, and of national unemployment level in a difficult context such as the Mezzogiorno area: it rhetorically used accounting to justify its decision to govern social risk discourse while marginalizing, without excluding, the societal one.

Table 3b. Emerging themes' example on social risk discourse conveyed by calculative technologies

Risk category	Risk sub category	Extracts	Calculative technology measures	Themes
Social	Occupational	P) "To shut down a blast furnace or a coke oven it means to do it forever, there are no more possibilities, in technical terms for the recovery of that plant, which can no longer be used. (...). This is a signal by the magistrate, to share, but you can realize very well that this is difficult to implement, as we speak, only for the ILVA plant, of nearly 12,000 employees, regardless of satellite activities. In particular, people employed in systems subject to requisition are about 5000. Now, to replace all these people in a territory like the one of Taranto and of Puglia region, I think it is frankly difficult..	Absolute numbers; Thousand order numbers.	Certainty High impact
	Economic-strategic	Q) "The centre of Taranto is one of the main European steel poles, with a production capacity of about 10 million tons per year, equivalent to more than 40 percent of national steel production. In the field of flat rolled production Taranto covers more than 60 per cent of domestic demand, contributing decisively to the supply of strategic sectors for the Italian industry, such as household appliances, shipbuilding, automotive and mechanics. By occupation, Ilva employs more than 11,600 workers employed directly, to which must be added closely related satellite activities on the vertical plane, which brings direct employment to nearly 15,400 units. To this figure must add up 9,200 units linked to industries(...) Overall, it would result in a negative impact, which has been estimated in over 8 billion euro per year ...	Absolute numbers; Thousand/ million order numbers; Percentages; Estimated costs.	Certainty High impact

6. Discussion and conclusions

Considering that numbers can be utilized in matters of probability to convey a notion of risk (Rose, 1991), the case study shows that calculative technologies inform social and societal risk governance by conveying specific risk discourses. In particular, calculative technologies mobilize a perception of relevance, as synthesis of probability and magnitude themes. Therefore, in a context of value incommensurability, accounting does not work as a decision-making tool that allows to objectively compare the different risks. Whereas, it acts as a supportive tool to rhetorically justify the decision made according to the emerging risk discourses' relevance perception. Thus, the use of calculative technologies is adopted to attribute risk discourses' validity⁶ at the aim of justifying risk governance.

The themes of probability and magnitude emerged within the risk discourses on Ilva can be represented as in Table 4. The table would identify the rationality path followed by the Government in making its decision given the incommensurability between societal and social risks.

Table 4. Government decision rationality rhetorically based on calculative technologies

Calculative technologies themes		Magnitude	
		Low impact	High impact
Probability	Uncertain	I. Risk discourse is marginalized	II. Risk discourse is de-emphasized Societal risk (health risk)
	Certain	III. Risk discourse is quite relevant Societal risk (environmental risk)	IV. Risk discourse is relevant Social Risk (occupational risk; economic-strategic risk)

Following a rationality based on relevance perception as conveyed by calculative technologies, the governmental decision on business continuity seems to be fully justified in light of the fact that: the societal risk discourse is perceived as certain but not material in case of environmental sub-risk (see box III), while of high impact but uncertain in case of health sub-risk (see box II). Thereby, the societal risk discourse, according to that rationality,

⁶ Validity Latin root means "power".

converges towards the box III which emphasizes more the relevance of the environmental discourse while de-emphasizing the health one. Societal risk is therefore perceived a not material danger (having an improvement trend) even if certain in occurrence. The social risk discourse is, on the other side, informed towards themes of certainty and high impact, and positionable within the box IV, both in case of occupational and economic-strategic sub-risk categories. Altogether, the social risk discourse is perceived as having a greater relevance. Government therefore used accounting as a risk assessment tool within the single social/societal risk categories, while used it as a relevance perception tool when it has to compare the two incommensurable risk's categories. Thus, Government - through a rationality based on the relevance notion - rhetorically used accounting to legitimize itself to mainly govern the social discourse while marginalizing the societal one. In such a way, however, it follows a re-distribution of societal risks on all the citizens, and not just on the "already most disadvantaged people" directly involved in Ilva's activities, differently from Asenova *et al.* (2015).

Nevertheless, given the "value incommensurability issue" (Cohen and Ben-Ari, 1993) and the urgency need for a governmental decision, a rhetorical use of calculative technologies can even put in doubt. Calculative technologies indeed show on the societal risk side a decreasing trend of polluted emissions and a health risk which is uncertain also in terms of causes provoking such kind of damages; on the social risk discourse side, they show a material and certain issue that is, in particular, the high unemployment level in case of business closure. Thus Government decision could have opted to face not only in terms of relevance according to which accounting can play a rhetorical role, but also in term of urgency that, however, does not emerge from the use of accounting within the debate. Future research on the case can help to disentangle this aspect.

The paper contributes to integrate previous studies generally focused on health issues belonging to the societal side of a risk discourse. In addition, it contributes to analyse risk and decision-making in a context of public interest government exerted by more than one public bodies. The paper identifies a subtle bond between accounting, risk and public interest that future research can verify in a different decisional context about contrasting social and societal risk discourses. Moreover, future research - aiming at studying lay people perspective - could include into the analysis also media and other non-state sources about Ilva's debate. Finally, the paper could be extended to verify if and how calculative technologies are used to assess the two incommensurable risks within the international debate, such as at the European Commission or at the European Human Right Court.

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References

- Asenova D., McKendrick J., McCann C. and Reynolds R. (2015). *Redistribution of social and societal risk: The impact on individuals, their networks and communities*; Available at: <http://www.jrf.org.uk/sites/files/jrf/social-societal-risk-full.pdf>.
- Beck U. (1992). *Risk society: Towards a new modernity* (Vol.17). Sage.
- Burchell S., Clubb C., Hopwood A., Hughes J., and Nahapiet J. (1980). The roles of accounting in organizations and society. *Accounting, Organizations and Society*, 5(1), 5-27.
- Burchell G., Gordon C. and Miller P. (1991), *The Foucault Effect: Studies in Governmentality*. Hemel Hempstead: Harvester Wheatsheaf.
- Cohen E. and Ben-Ari E. (1993). Hard choices: A sociological perspective on value incommensurability. *Human Studies*, 16, 267-297.
- Dean M. (1999). Risk, calculable and incalculable. In D. Lupton (Ed.), *Risk and Sociocultural theory: New directions and Perspectives*: 131-159. Cambridge: Cambridge University Press.
- Douglas M. (1986). *Risk acceptability according to the social sciences* (Vol. 11). Russell Sage Foundation.
- Douglas M. (1991). *Come percepiamo il pericolo: antropologia del rischio*. Feltrinelli.
- Edwards P., Ram M. and Smith V. (2008). Introduction to special issue: Workers, risk and the new economy. *Human Relations*.
- Ericson R. V., Ericson R. V., and Haggerty K. D. (1997). *Policing the risk society*. OUP Oxford.
- Ewald F. (1991). Insurance and risk, in Burchell G., Gordon C. and Miller P., *The Foucault Effect: Studies in Governmentality*. Hemel Hempstead: Harvester Wheatsheaf.
- Foucault M. (1979). *Discipline and Punish: The Birth of the Prison*, Vintage/Random House, New York.
- Froud J. (2003). The Private Finance Initiative: Risk, Uncertainty and the State. *Accounting, Organizations and Society*, 28 (6), 567-589.
- Gephart R. P., Van Maanen J. and Oberlechner T. (2009). Organizations and Risk in Late Modernity. *Organization Studies*, 30 (2-3), 141-155.
- Hutter B., and Power M. (2005). *Organizational encounters with risk*. Cambridge University Press.
- Jasanoff S. (1998). The Political Science of Risk Perception. *Reliability Engineering & System Safety*, 59 (1), 91-99.
- Lavoie D. (1987). The Accounting of Interpretations and the Interpretation of Accounts: The Communicative Function of "the Language of Business". *Accounting, Organizations and Society*, 12(6), 579-604.

- Lupton D. (1999a). *Risk*. London: Routledge.
- Lupton D. (1999b). *Introduction: Risk and Sociocultural Theory* in Lupton et al., *Risk and Socio-cultural Theory: New Directions and Perspectives*, Cambridge University press.
- Lupton D. (1999c). *Risk and Sociocultural theory: New directions and Perspectives*. Cambridge: Cambridge University Press.
- Lupton D. (2013). *Risk* (2nd ed.). Milton Park, UK: Routledge.
- Miller P. and Rose N. (1990). Governing Economic Life. *Economy and society*, 19 (1), 1-31.
- Miller P. (2001). Governing by Numbers: Why Calculative Practices Matter. *Social research*, 379-396.
- Miller P. (2008). Calculating Economic Life. *Journal of Cultural Economy*, 1:1, SSN 1753-0350 print/1753-0369 online/08/010051-14.
- O'Malley P. (1996). *Risk and Responsibility* in Barry A., Osborne T. and Rose N. (eds.), *Foucault and Political Reason: Liberalism, Neo-Liberalism and Rationalities of Government*. University College of London Press.
- O'Regan P. and Killian S. (2014). 'Professionals who Understand': Expertise, Public interest and Societal Risk Governance. *Accounting, Organizations and Society*, 39 (8), 615-631.
- Porter T. M. (1996). *Trust in Numbers: The Pursuit of Objectivity in Science and Public Life*, Princeton University press.
- Power M., Scheytt T., Soin K., and Sahlin K. (2009). Reputational Risk as a Logic of Organizing in Late Modernity. *Organization studies*, 30 (2-3), 301-324.
- Rose N. (1991). Governing by Numbers: Figuring Out Democracy. *Accounting, organizations and society*, 16 (7), 673-692.
- Rose N. and Miller P. (1992). Political Power Beyond the State: Problematics of government. *British Journal of Sociology*, 173-205.
- Scheytt T., Soin K., Sahlin-Andersson K. and Power M. (2006). Introduction: Organizations, Risk and Regulation. *Journal of Management Studies*, 43(6), 1331-1337.
- Scott S. V. and Walsham G. (2005). Reconceptualizing and Managing Reputation Risk in the Knowledge Economy: Toward Reputable Action. *Organization Science*, 16 (3), 308-322.
- Watts R. L. and Zimmerman J. L. (1979). The Demand for and Supply of Accounting Theories: the Market for Excuses. *Accounting Review*, 273-305.