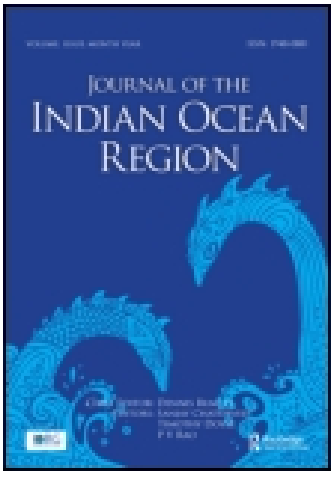

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Insurance, climate change, and the creation of geographies of uncertainty in the Indian Ocean Region

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Insurance, climate change, and the creation of geographies of uncertainty in the Indian Ocean Region

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This article is a geopolitical–biopolitical interrogation of the global insurance discourse in relation to climate change. Based on two general assumptions made by the insurance industry, namely that the 'Global South' remains uninsured, and that insurance *is* the technology for coping with environmental risk, it is argued that a risk management insurantial imaginary is effecting a globalisation of spaces of liberal security. As a result, the globalisation of a rationality of governing uncertainty through insurance aligns 'other' non-Western ways of being in the world with a Western financial capitalist rationality of governance. The argument is explored in relation to the Global South and is illustrated through the case of parametric rain insurance in Ethiopia.

Keywords: risk; uncertainty; climate change; insurance; biopolitics; geopolitics

Introduction

The Indian Ocean Tsunami of 26 December 2004 has been depicted by the insurance industry as the worst natural or human-made catastrophe in terms of victims between 1977 and 2008 (Enz *et al*. 2009, p. 38). Killing 220,000 people, it compares starkly with Hurricane Katrina of 25 August 2005 affecting the United States, the Gulf of Mexico, the Bahamas and the North Atlantic which killed 1836 victims. However, Katrina generated insurance claims of US$ 71,300 million, 31 times the insured losses of the Indian Ocean Tsunami – US$ 2,280 million (Enz *et al*. 2009, p. 37). With 120 times less victims, Katrina generated the most costly insurance losses in the world between 1970 and 2008.

This situation, based purely on data taken from publicly available insurance documents, highlights two underlying assumptions. The first relates to the fact that whereas environmental hazards affect populations around the world, those in the so-called Global South remain seriously underinsured. The second assumption is that insurance is *the* technology of risk to be used to cope with environmental hazards. This idea is anchored on the belief that in the absence of insurance cover, uninsured populations will not be able to protect capital. Unprotected capital limits the operations of these populations within the context of a financial capitalist world since uninsured assets are hardly accepted as collateral for credit.

Supporting these assumptions, however, is the insurance industry's firm belief that climate change is a reality that will increase the levels of risk to property and

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other commercial and human activities. This belief, evidenced in insurantial discourses as analysed in section two of this article, represents at the same time higher potential losses for the industry but also a promising emerging market. Insurance data show that weather-related catastrophes are increasing. For example, 2008 was one of the costliest catastrophe years for the insurance industry. Of a total of US$ 52.5 billion in insured losses, US$ 44.7 billion (85%) were due to natural catastrophes, while the remaining US$ 7.8 billion were related to human-made disasters. High insurance losses derived mainly from storms. However, and reinforcing the two mentioned assumptions, most of the 240,500 people who died in catastrophic events during that year, and their related economic losses, were located in Asia and were not covered by insurance schemes (cyclone Nargis caused 138,000 fatalities in Myanmar; an earthquake in China's Sichuan region killed over 87,400 people; 1400 people died after typhoon Fengshen hit the Philippines) (Enz *et al*. 2009, p. 3). In these cases, individuals, corporations, and governments have had to absorb the losses.

The fact that weather-related catastrophes are on the rise has led the insurance industry to gain better understandings of the knowledge base supporting ideas of climate change. Insurers are moving quickly in this regard and constantly seek expert individual and collective advice. A case in point is the Lloyd's of London 360 Risk Project developed in 2006 to shed light as to the likely prospects of climate change for the global insurance industry (Lloyd's 2006). Advised by Climate Change Risk Management, a consultancy led by academics formerly affiliated to Oxford University, one of the conclusions of this project has been that regardless of its impact, climate change presents society with an increasing level of uncertainty. This heightened level of uncertainty brings with it many opportunities as well as dangers. According to the first 360 Risk Project report, insurers will have to understand the problem and tackle it as 'business as usual' if they are not to put their companies at risk from future legal action from shareholders, investors and clients. Moreover, there is an understanding that climate change must inform underwriting strategy and guide and counsel business strategy including business development and planning. A suggested move has been to engage more widely in 'meaningful, tangible partnerships to mitigate risk – bringing corporate and social responsibility plans to life' (Lloyd's 2006, p. 21). In sum, climate change has become a fundamental aspect for the insurance industry's strategy in the present and for years to come.

When analysing the role of climate change discourses for global insurance, the financial and political power of this industry cannot be underestimated. As the world's largest economic sector with an annual premium volume of US$ 4,060,870 million, insurers have an unrivalled potential to mobilise discourses of 'truth' and impose their ways of understanding and manage uncertainty at all levels of business around the globe. The industry affects decision-making in the sectors where it invests.[1] For example, Swiss Re, as the largest and most diversified reinsurance company in the world, is able to operate an industrial shift in aligning climate change priorities with its business plans (Zanetti and Schwartz 2007). With an investment portfolio of over US$ 130 billion, Swiss Re alone can influence social corporate responsibility decisions on its clients at a level without precedent.

This financial and political power is anchored on a set of beliefs that can be characterised as a global insurantial imaginary, an analysis of which is offered in the following section. Such an imaginary supports the industry's discourse on climate

change that is then employed in developing schemes and products that transcend the limits of what can be insured within an environmental context. Very specifically, as will be shown in section three, supported by a climate change discourse, insurers are developing private–public partnerships to insure against drought in Ethiopia, for example. In effect, the mobilisation of climate change as a discourse to widen insurance markets around the globe is conducting the globalisation of a rationality for governing uncertainty. The two assumptions, that the Global South remains uninsured and that insurance is *the* technology to cope with environmental risks, support a form of governance that silently colonises the Global South's management of 'the uncertain' (see Lobo-Guerrero 2010).

Uncertainty, however, is by no means a natural or universal concept. As Brian Rotman (1987) demonstrated in his genealogy of 'nothing' and 'zero', the idea of uncertainty must be located in Western intellectual discourse. Within the West itself there are various traditions that can be explored: Greek, Jewish, Christian, and within the latter, the work of Max Weber with regard to the protestant ethic and the spirit of capitalism indicates acute discrepancies. This is simply to say, without losing the focus of this article, that what in the West is referred to as 'the uncertain' is by no means an innocent representation of the world. It entails complex problematisations of reality that involve theological, economic, and cultural tensions that materialise in discourses and practices of power (see Elden 2006). The globalisation of a Western rationality of risk management through insurance discourses and practices promotes the imaginaries that underlie it. Insurance effects are visible in the ways in which the conduct of individuals and collectivities is affected as a result of conditions and practices of insurability (for example, Baker and Simon 2002). As a result, the globalisation of a rationality of governing uncertainty through insurance aligns 'other' non-Western ways of being in the world with a Western financial capitalist rationality of governance.

This situation presents an important geopolitical–biopolitical security problem. On the one hand, the globalisation of insurance in relation to climate change constitutes insurance markets that can be understood as creating 'spaces of liberal security'. On the other, such spaces of liberal security are underwritten by insurance, and insurance, as will be elaborated below, is a clear biopolitical security technology. Whereas this article invites the development of more scholarship within critical geopolitics concerned with understanding the creation of non-localised security spaces, the biopolitical dimension to insurance seeks to analyse the role of insuring, the practices of insurance, and the spatiality of insurance, in relation to the form(s) of life that it seeks to promote and protect (see Dillon and Lobo-Guerrero 2008, 2009; Reid 2006). Constituting a complex political economy problem that generates spaces of security, the relationship between insurance discourses on climate change and the globalisation of a governmentality of risk offered here differs greatly from risk society analyses (for example, Beck 1999, 2005, 2006). It also distances itself from political geographies premised on the securing of national boundaries. It seeks instead to analyse the production of space through insurance practices, spaces of insurability of which more is said in the conclusion.

This article makes a contribution to the intersection of these literatures by offering some general ideas on how to read spaces of liberal security in a biopolitical fashion. It does so in four parts. The first section is used to analyse the set of beliefs that constitute a global insurantial imaginary. The second analyses the global

insurance discourse in relation to climate change. Thirdly, a specific empirical case of insuring drought in Ethiopia is offered as a demonstration of the points made in the previous two sections. Finally, some concluding remarks are made in relation to the geopolitical–biopolitical problem at stake.

1. The global insurantial imaginary

A first step to understand the quiet but tremendously influential practices of power of the insurance industry is to analyse the imaginary in which these operate. An imaginary encompasses the set of beliefs that frame a way of being in the world. Insurantial imaginaries in this sense are ontopolitical specifications of the order of being construed in terms of the management of uncertainty. Understanding an imaginary is no easy task since imaginaries shift as a result of the discourses and practices they inspire. They are, however, observable in the discourses and practices themselves in the form of their necessary conditions. Conditions of possibility, those without which insurance could not exist as an idea, as well as conditions of operability, those without which insurance discourses and practices could not 'take place', constitute therefore an empirical space from which to observe and describe insurantial imaginaries. If this is so, then, there are as many insurantial imaginaries as practices and discourses. This poses a great difficulty for developing a general analysis of insurance. In order to bypass this obstacle, for the moment, this article refers to the insurantial imaginary of insurance as a 'technology of risk' (see Ewald 1991). Insurance, François Ewald (1991, p. 207) argued, is an economic and financial technique, a moral technology used to master time and discipline the future, and a technique of reparation and indemnification of damages. As a well-defined and structurally operated technology, insurance operates a certain set of beliefs.

First, insurance in its private form – the one that concerns this analysis – truly believes in market principles. In fact, insurers operate a market economy and it is not surprising that the development of actuarial insurance as we know it goes hand in hand with the development of financial capitalism (see Ogborn 1962). Insurers seek to generate value to their shareholders by operating sound economic and commercial practices. There is no charity in insurance. Insurance operations are aimed at maximising profit whilst ensuring the financial viability of the enterprise. Social corporate responsibility policies, many of which are now deeply related to tackling climate change, are an integral part of these practices and are deployed as a way of satisfying and fostering the wider insurance stakeholder community. Whereas insurers might fund charitable foundations, these activities are part of the commercial strategy of their corporations.

Second, and related to the first belief, insurers depend and are closely allied to the sound operation of a state system which can guarantee basic norms of legal procedure. If contracts were not enforceable by law, insurers would have to develop a system to challenge, if required, the trustworthiness of clients, and clients would require a system to hold insurers to contracts. Due to this intimate relation between insurance and the modern state, it is not surprising that the strongest insurance and reinsurance companies of the world have flourished in Western countries. However, it is important to note that a state legal system is not only a condition of possibility for the idea of insurance, but a necessary condition of operability for insurance operations.

Third, insurance is a technology of risk that trades in trust. Insurers depend on their constant demonstration of good faith and the scrupulous endorsement of trust. Insurance policies constitute legal contracts enforceable by law but insurance relations depend on the client's disclosure of relevant and sufficient information and the insurer's commitment to pay when valid claims are made. Insurers assume that individuals and collectivities will seek to maximise their benefit in insurance relations. To evidence trust, insurers develop underwriting techniques, complex processes through which they seek to understand their prospective clients in terms of the levels of risk they would bring to the company. If a client has a track record of violating rules this means a higher risk. Since states and cities can also be clients to insurers, their risk worthiness is kept in check and this operates as a risk audit on sovereign entities. By making trust evident, insurance practices discipline and 'police' the behaviour of individuals and collectivities.

Enframing this trade in trust is a temporal dimension to insurance that must be noted in passing. An insurance technology can only operate within a specific time frame. One defining aspect of an insurance policy is its term of cover. In this way, insurance contracts establish relationships *ad-futurum*, at a time 'to be'. This point is quite significant since insurance would not be able to operate without performing a future in a present. As will be seen later, when insurance discourses in relation to climate change are mobilised, part of their function is to instantiate a truth regime in relation to this issue into their present environmental-related products. The products are then already mobilising an understanding of uncertainty in relation to climate change, which gets priced according to the accepted 'science' and the actuarial techniques employed.

This leads to a fourth aspect of a general insurantial imaginary, which is the belief that insurance provides an indispensable security technology. The functioning of the modern world would not be possible without insurance. Insurers see their role as constituting a quintessential liberal function that helps repair a way of life and its infrastructure in the face of catastrophic events. As a brochure of a notable reinsurance company states:

> Each year countless human lives are lost and considerable property damage is caused by natural catastrophes . . . One of the key responsibilities of re/insurers is to help in the risk mitigation process. The objective is to form a community of insureds whose premium payments will be sufficient to cover the cost of repairing the damage in the wake of natural catastrophe. (Zimmerli 2003, p. 5)

Another document, this time by the Association of British Insures, notes that:

> Insurance underpins every sort of economic activity and is viewed as essential protection in many areas of our personal lives. Without insurance, many ventures simply would not happen. This summer's floods [UK, 2007], with 60,000 customers turning to the industry for assistance in re-building their homes, businesses and communities, have reminded us just how essential insurance is. (ABI 2007c, p. 1)

Central to this belief is the fact that insurers see themselves as securing 'value' in its present and future capacity. Insurers offer cover for present assets and also for future income and events that relate in one way or another to the creation of value. Within financial capitalism it is believed that capital can be repaired and insurance provides

a technology for doing so. The value(s) that insurance secures are seen as central for the way of life they support. For example, even if after catastrophic events assets are lost, the financial capacity to restore them is retained. This aspect is crucial when analysing the ways in which the global insurance industry depicts the 'Global South' as uninsured. Insurers, in sum, believe that their technology promotes and protects the creation of value, a belief which is intimately related to a capitalist understanding of life.

2. 'Adaptation': the global insurance discourse on climate change

> The insurance industry is helping society to reduce the risks of climate change. We are determined to help governments and our customers to make the right decisions. Because today is the day to think about tomorrow (Climatewise 2007).

Having identified four major characteristics of a global insurantial imaginary this section offers a general characterisation of the global insurance discourse in relation to climate change. The section is based on a general overview of insurance association and insurance industry published brochures as well as publicly available documents.

First, insurers have accepted that climate change is a reality and the only acceptable strategy is to 'adapt' to it. As stated by Malcolm Tarling, spokesperson for the Association of British Insurers (ABI):

> after years of debate there is scientific consensus that climate change is happening now and that its impact will increase in the future unless Governments around the world make the right decisions for a sustainable future, as well as tackling the effects of climate change we already face. (Tarling 2007)

The development of risk management instruments and of governmental policy that addressing the reality of climate change is presented as the way forward. The ABI has played a key role in portraying this message:

> Climate change will affect every aspect of insurance. Insurers are already doing a great deal to tackle climate change, through corporate actions to reduce emissions, core underwriting skills, and research and development of new products. However, there remains scope for further action. Although consumers generally have limited trust in business on environmental issues, insurers are acknowledged as a major source of advice on risk. The industry can build on this authoritative role. It will not be able to provide all the answers to climate change, but it can and does provide essential risk transfer mechanisms which will become increasingly valuable as climate risks increase. (ABI 2007c, p. 2)

Swiss Re, in a document entitled 'Pioneering climate solutions', has reinforced this discourse by arguing that:

> [t]he activities of modern society and the rapid growth of the world's population over the past two centuries have contributed to a change in the climate which is manifesting itself as a substantial increase in global temperatures. To effectively address global warming and adapt to its inherent consequences, immediate action is called for. The financial

> services industry can play its part as an enabler of change to help guide society towards an effective response. (Menzinger and Spiegel 2008, p. 3)

This feature is closely associated with the insurantial imaginary depicted in the first section of this article. Insurers see themselves as offering an indispensable technology for coping with uncertainty. If the name of the game is adaptation, then insurers have all the experience to provide a solution. However, this does not happen in the abstract but is part of a tightly linked economic process.

The second main characteristic of the insurer's climate change discourse is that climate change generates opportunities for profit. As noted by Swiss Re:

> climate change creates both risks and opportunities, as society's demand for better financial protection against emerging physical risks and new liabilities grows and the transition to low-carbon economy progresses. (Menzinger and Spiegel 2008, p. 7)

The ABI's discourse reinforces this idea. 'Customers in both retail and commercial markets need insurance to cater for new risks such as the adoption of climate-friendly energy technologies' (ABI 2007c, p. 2). Insurers are working in developing specific strategies that can help them service this market of environmental risks. Illustrative of this case is ABI's discourse in relation to developing what they term 'climate-proof measures':

> [g]eneric climate-proof measures do not apply to the commercial market; each business has its own unique risks. Helping customers understand these changing risks and identify appropriate responses is both a challenge and an opportunity for the insurance industry. (ABI 2007c, p. 2)

A third characteristic is that climate change is closely linked with the security of everyday life. Insurers' discourse actively links climate change and the promotion and protection of livelihoods. As one of the promotional videos of Climatewise, a sectoral initiative run by the University of Cambridge Programme for Sustainability Leadership, and sponsored by The Prince of Wales Corporate Leader's Group on Climate Change, states: 'climate change threatens the basic elements of life for people around the world. *It is devastating not only for homes and landscapes but livelihoods too*' (Climatewise 2007, emphasis added). Through Climatewise, a working group of some of the largest insurance companies created 'to develop a framework for companies worldwide to set out how they will build climate change into their business operations', insurers seeks to raise awareness of the need for immediate political and actuarial action in relation to climate change (ABI 2007b). As noted in what is presented as 'a manifesto for business, government and the public', the ABI has claimed that:

> climate change is already causing more erratic and extreme weather. However successful we are in reducing emissions, weather damage will continue to worsen over the next 30–40 years because of historic emissions. We need to take action now to protect our communities and economy. Public funding must address the consequences, as well as the causes, of climate change. (ABI 2007a)

However, this link between insurance discourses and everyday life is not new. Presented as a corporate mission to support the wider stakeholder community, some insurers claim to have been working on ways to address climate change since the late 1980s, as this Swiss Re quote reads:

> We first identified climate change as an emerging risk some 20 years ago, and the concern has since evolved into an important component of our long-term corporate risk management strategy. Our actions are based on the premise that it is in the interests of shareholders, clients and employees, the wider stakeholder community, and society in general, to tackle the issue. We are committed to leveraging our capabilities in designing financial solutions that help reduce emissions and adapt to the inevitable consequences of climate change. (Menzinger and Spiegel 2008, p. 3)

> We advocate an international market-based framework to reduce emissions in order to avoid dangerous levels of greenhouse gasses that would render protection incalculable. We advocate measures to reduce risk and improve the resilience of society. (Menzinger and Spiegel 2008, p. 7)

This leads to a fourth general characteristic of the industry's climate change discourse: climate change operates a future oriented form of underwriting. As the epigraph to this section indicates, 'because today is the day to think about tomorrow', insurers create an economy of risk in relation to climate change that demands immediate present actions. This, it must be said, is a general characteristic of insurantial technologies: insurance discourses and practices are always present-oriented and rather than preparing for 'the' future, they seek to shape the present to generate 'a' future (Lobo-Guerrero 2010). By producing 'present(s)' insurers produce 'orders of the real'. Orders of the real are actualisations of imaginaries and are the materialisation of discourses and practices. When insurers perform an order of the real they are not only exercising specific forms of power but they are shaping reality for their stakeholders in insurantial terms. The fact that in the 'Global North' reality is usually depicted as an outcome of risk assessments and risk management strategies, including all kinds of health and safety issues, is not gratuitous.

There is, however, something remarkably special about the temporalities of climate change-related insurantial discourses. Whereas insurers have traditionally portrayed interpretations of the past, through statistical analyses of historical data, climate change discourses tend to rely on authoritative present research based on sanctioned knowledge (that is, published in top-ranked journals, emerging out of widely recognised institutions and researchers). These authorised forms of knowledge, or 'hard science', are used to depict a reality and legitimate specific discourses. In other words, rather than relying on verifiable past data that can be processed through actuarial techniques to produce probabilities, insurers depend on present 'expert' forms of knowledge to be able to underwrite risks. Probabilities deriving from these sources of knowledge are used to inform the formulation of credible scenarios. As this quote from 'A Manifesto for Business, Government and the Public' reads:

> [w]e are fully aware that looking into the rear mirror is no longer sufficient to assess risk today, and therefore strive to anticipate the future by driving joint research efforts with leading universities into the consequences of climate change. These key elements of our approach enable us to quantify climate change-related risks and integrate any relevant

> findings into our underwriting and risk management frameworks. (Menzinger and Spiegel 2008, p. 9)

However, this knowledge/power nexus, of which Michel Foucault wrote extensively (for example, Foucault *et al.* 1997), is far from being natural. Knowledge does not occur in a vacuum but is tightly linked with a wider political economy. As noted by Doyle and Chaturvedi:

> Concepts of environment (and the later variant, climate change) are far from apolitical; rather, they are the exact opposite. They are intensely politicised categories utilised to redraw boundaries of collective identity, behaviour, political activity, security, and most importantly, power and resource distribution. (Doyle and Chaturvedi 2008)

An insurantial political economy, premised on a need to know, fosters the production of knowledge. Experts are sponsored in their expertise through funding and funding is purpose-oriented. Funding, a 'need to know', and answers, are all part of a wider ensemble of power supported by governmental rationalities. These ways of being in the world are therefore related not to an objective empirical universe that they seek to decipher and 'adapt' to, but to an empirical universe shaped by the imaginaries that think about it. In this respect, and as a way of supporting this claim, there is nothing objective about the ways in which insurers portray 'facts' on climate change. Climate change is as much a part of the contemporary insurantial rhetoric as it is a scientific discourse. This is, of course, not to deny that emissions have had a lot to contribute to natural and induced changes in climate. It is only to indicate that if we are to focus on the biopolitical aspects of climate-related insurantial discourses we must not dismiss the conditions of possibility and operability of insurer's discourses and practices. The 'adaptation' that insurers promote and call for is an active process of endorsing an insurantial logic into areas yet to be insured.

3. Insurance, climate change, and the 'Global South: the world's first humanitarian insurance policy'

In 2006, the government of Ethiopia together with the World Food Programme and the World Bank ran a pilot programme to provide insurance cover to farmers at risk of severe drought (Fleming and Lyons 2006). The risk of drought, as an environmental risk, was until then deemed as 'catastrophic' in insurantial terms. Because of the impossibility to calculate probabilities of occurrence and magnitudes of environmental events, environmental risks had escaped the logic of insurance at a global level (see Bougen 2003). However, insurantial and political creativity led to the development of strategies that enabled the transformation of environmental uncertainty in relation to drought into insurable risks. The strategy deployed for this process resulted from combining two manoeuvres.

The first was the conception of 'parametric insurance', a form of insurance not focused on the catastrophe itself but on some form of measuring its triggers. An insurable event is one that can be measured with some degree of objectivity. Part of what has made catastrophic risks uninsurable has been the impossibility of objectifying 'the event' – for example, terrorism. To overcome this problem parametric insurance emerged as a form of cover whose contingent payout is

based on the outcome of an underlying variable (Ghesquiere and Mahul 2007). Rather than seeking to compensate for losses deriving from accidents on specific assets, as traditional forms of insurance do, the scheme fixes parameters that when breached give rise to claims. For example, rather than insuring against the loss of Ethiopian crops for the year 2006, the government and its international partners insured against a parameter of minimum rain within a given time and territory.

The second manoeuvre was a financial securitisation process within the context of a wider public–private partnership between a nation-state, the reinsurance industry, and the global financial markets. It involved the role of the nation-state as the first insurer, the participation of a global reinsurance company to enable the state's insurance role, and a third level that converted catastrophe risks into catastrophe bonds (CAT bonds). These bonds are financial instruments sold in the international financial markets. The existence of this third level of risk diversification is precisely the one that enables reinsurers to underwrite the levels of risk that the state, as insurer of first resort, brings into the insurantial scheme. Phillip Bougen has called this last process the 'crossbreeding of insurance and capital markets' (Ibarra and Mechler 2006, p. 255).

The Ethiopian drought insurance contract was awarded to Axa Re. However, rainfall in 2006 turned out to be above average so no payment was made. Had the contract been triggered Axa Re would have transferred funds to the United Nations World Food Programme (WFP) which would then have paid the claims to the Ethiopian government. The government would then distribute cash assistance to individual households through its Productive Safety Net Programme (WFP 2006). The scheme was intended to prove that insurance technologies could indeed be employed as an instrument for emergency and humanitarian relief in regions where states and private individuals lacked the capacity to provide for their own financial risk management mechanisms. The value of the scheme was celebrated in press headlines as the 'World's first humanitarian insurance policy' (WFP 2006). The WFP's executive director was quoted as saying '[t]he humanitarian emergency insurance contract might, in the future, offer us a way of insuring against these massive losses before they spell destitution for millions of families' (Reuters 2006). At a major United Nations conference in Kenya in November 2006, Jeffrey Sachs, architect of the UN Millennium Development Goals for easing world poverty, 'urged countries plagued by natural disasters to take out insurance policies rather than hope for humanitarian aid' (Reuters 2006). The scheme has also created anxiety within the global insurance industry. Thomas Loster, chairman of the Munich Re Foundation, stated that 'there is a lot of noise now [in the insurance industry] because they want to get new clients in new markets … India and China are very promising' (Reuters 2006).

The case of drought insurance in Ethiopia clearly illustrates a global insurantial imaginary as depicted in the first section of this article and mobilises a climate change rhetoric as analysed in section two. Sovereign parametric environmental insurance solutions of this kind are not the result of international charity or good international citizenship but of profitable global enterprises that involve sovereign states, the global insurance/reinsurance industry, and in many cases, the mediation of international organisations. Whereas governments are increasingly concerned with devising strategies with which to cope with environmental hazards, insurers are

seriously concerned with the effects of climate change and environmental risk for reasons mentioned above.

4. Conclusions

Following Jacques Derrida, discourses are practices of representation. The ways in which a 'reality' of climate change is discursively represented, in this case by insurers, becomes the operational ground for a specific order of governance to be employed in managing environmental uncertainties. By comparing insurance density across the world (that is, premiums in percentages of gross domestic product (GDP), see figure 1), insurers depict uninsured societies and populations as markets to be developed. Through innovative and creative public-private partnerships new insurance schemes are developed to widen the frontier of insurability into the realm of 'catastrophic risks'. In the process, an insurantial rhetoric of climate change materialises into new insurance products and schemes. However, what this situation shows is that there is no such thing as uninsured societies or populations but uninsured markets that are constituted by the insurance industry.

This situation links to the production of geographies of uncertainty. Uninsured markets are represented as uninsured spaces, spaces in need of being secured by a technology of risk that would enable their subjects to operate within a wider political economy of risk management. However, and as noted in this article, identifying and conceptualising 'uninsured spaces' has less to do with what is not insured than with the order of governing uncertainty in the imaginary of insurers. Moreover, and central to the argument of this article, the order of governing uncertainty that insurers promote relates directly to a very specific form of life that depends on its capacity to operate a financial form of capitalism. This is where the link between critical geopolitics and biopolitics of security in relation to climate change stands: spaces of security are the performance of biopolitical security apparatuses that should be analysed in relation to their discourses and practices.

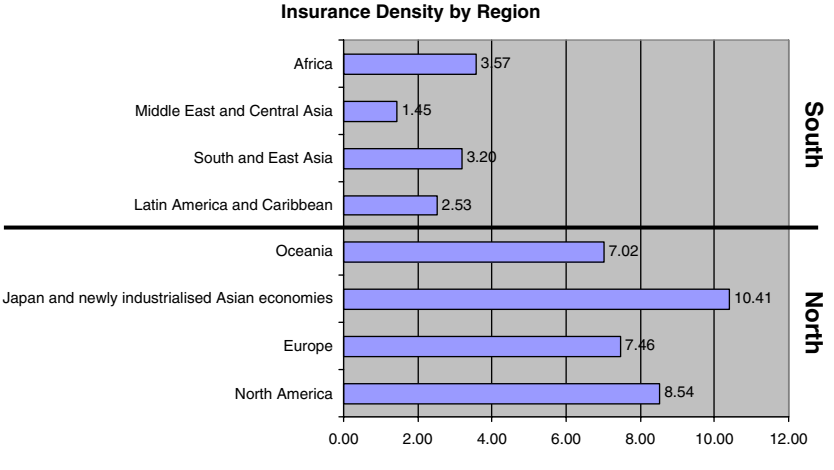

Figure 1. Premiums in percentage of GDP per region.
Source: Swiss Re, Sigma 3/2009.

In this respect, reading global security as the intersection of geopolitical and biopolitical practices opens up a space for a critical interrogation of the North–South divide. Building on Roxanne Lynn Doty's study of the representation of North–South relations, uninsured spaces 'become a realm of politics wherein the very identity of peoples, states, and regions are constructed through representational practices' (Doty 1996, p. 2). These representational practices involve geopolitical discourses such as the Brandt Line proposed by German Chancellor Willy Brandt to visualise the North–South divide as well as biopolitical discourses in relation to 'uninsured' regions and populations as illustrated by global insurance density graphs (see figure 1). When the Brandt Line is compared with insurance density by regions it is possible to observe a clear correlation. However, the correlation between these two representations, one geopolitical and the second biopolitical, reinforces a rationality of governance that takes a Western liberal financial capitalist way of life as its reference. Climate change discourses become, in this respect, another front in the globalisation of a Western form of governance. What remains to be written are the alternative ways of understanding the 'uncertainties' that characterise the so-called uninsured populations of the world and the mechanisms through which they cope with their understandings of climate and change.

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Note

1. Matthew Paterson was calling for such an agency back in 2001. However, this contribution transcends Paterson's understanding of the potential role of the insurance industry in relation to environmental politics at the time. *c.f.* Paterson (2001).

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