AARHUS UNIVERSITY

Coversheet

This is the accepted manuscript (post-print version) of the article.
Contentwise, the accepted manuscript version is identical to the final published version, but there may be differences in typography and layout.

How to cite this publication
Please cite the final published version:

Publication metadata

Racing to the bottom, or climbing to the top? Local responses to the internationalisation of trade in the Brazilian textile and garments industry

Robson Sø Rocha

Department of Management,
Aarhus University,
Fuglesangs Allé 4-2628,
3068210 Aarhus V, Denmark
Email: rocha@mgmt.au.dk

Abstract: This article explores how firms in the textile and garment industry in Brazil are responding to trade liberalisation and the entry of multinational retailers into the Brazilian market. We analyse the competitive responses of local garment firms and, relatedly, how these responses are impacting on the industry's use of water. We show that the effects of trade liberalisation on the strategies of local firms and the use of natural resources are dependent upon the prior capacity of local actors to mobilise financial and human resources. In our case, contrary to the 'pollution havens' hypothesis, there is no indication that the regulatory framework has been downgraded to attract multinational companies (MNCs) or to help local firms cope with international competition. We claim that races to both the top and bottom are taking place as responses to the new competitive conditions.

Biographical notes: Robson Sø Rocha is an Associate Professor at the Department of Management, Aarhus University. He has a degree from the University of São Paulo and a PhD in Business and Economics from Copenhagen Business School.

1 Introduction

The organisation of international production and trade in the textile and garments industry has changed radically in the last two decades. These changes have intensified the link between the outsourcing of production by multinational companies (MNCs) and the development and decline of host localities. Accordingly, an intense debate has erupted on the social and environmental consequences of the new production and trading arrangements. On the one hand, it is claimed that companies that pay attention to the

social and environmental impacts of their activities are increasing their competitive advantage, as more and more consumers expect firms to behave responsibly towards both the societies and the environment in which they are located (Becker-Olsen et al., 2006). As resourceful organisations, MNCs are likely to transfer environmental management best practices to their subsidiaries, thus boosting their competitive advantage (Bansal and Roth, 2000; Christmann, 2004).The transfer of knowledge and resources by MNCs to their subsidiaries abroad is expected to trigger positive spillover effects, leading to the upgrading of their suppliers as well (Dunning, 1994; Lall and Narula, 2004; Javorcik, 2004).The direct gains afforded by MNCs in behaving responsibly are thus expected to become more evident. On the other hand, more recently researchers have claimed that the socially responsible behaviour of companies at home differs considerably from their behaviour abroad, as irresponsible behaviour abroad can be a consequence of companies transferring their unsafe and environmentally unfriendly operations to emerging markets (Surroca et al., 2013; Bansal and Knox-Hayes, 2013). Several examples of irresponsible strategies that involve putting pressure on suppliers to adopt unsustainable practices have recently emerged (Chan et al., 2013).

The new competitive arrangements and trade liberalisation policies are challenging, given that their importance in most emerging market economies is anything but negligible. What is still unclear is how the new competitive environment and international trade are having impacts on the ways in which local companies use natural resources, dispose of waste and treat labour. In this paper, we aim to examine the impact of trade liberalisation on an industry that spans wider transnational contexts. Our research investigates how local actors in the textile and garments industry in Brazil are responding to the increase in international trade that followed trade liberalisation and the end of international quotas. Are the new competitive conditions driving local actors, firms and policy-makers in a race to the bottom when it comes to environmental standards and practices? Or are they able to cope with international competition and build upgrading strategies, and if so, how?

We have chosen to study the textile and garment industry in Brazil, the fifth largest producer of garments and textiles in the world, though it has been struggling to survive since the ending of international quotas in the sector in 2005. The textile and garment industry in Brazil consists of firms of different sizes, among them the most powerful and resourceful textile companies in the world, though small and medium-size firms are also important economic actors in the industry, as they represent 60% of the sector's employment in Brazil (Brasil, 2013). The restructuring of local firms in order to respond to the new market conditions has received little academic attention. This paper investigates the responses of Brazilian textile and garment firms to this process of national and international trade liberalisation, focusing on the impact of the new competitive conditions on environmental management practices in this sector, which has profound effects on the surrounding communities.

We show that the responses to these changes have been quite unequal and constitute highly asymmetric ways of managing the use of natural resources (especially water) in the textile and garments sector. The higher end of textile production consists of a cluster of highly competitive domestic firms that have been able to restructure themselves in recent years. They have achieved this by investing heavily in new organisational and technological models, optimising the use of water and constructing reliable and sustainable systems for its use. Another group, however, is racing to the bottom. Unable to revitalise themselves, firms in this group are competing on price and very short

product life-cycles by cutting costs and avoiding the surveillance of state institutions. As a consequence, these firms are pursuing unsustainable strategies and increasingly polluting the region's water reservoir.

The remainder of this paper is structured as follows. We begin by reviewing the literature connecting international trade – in which MNCs are important actors – developing countries and social and environmental outcomes, as well as presenting our theoretical approach. This is followed by an account of the research design, the description of the location and the conditions of access. We describe the evolution of local market conditions, the institutional environment and the specific institutional complementarities. The empirical part is divided into two sections. The first section describes how resourceful firms have moved towards the high end of the industry, improving products and processes, as well as their use of natural resources. The second section shows how less resourceful companies have responded to the new competitive conditions by becoming informal companies in order to evade the state's surveillance, thus creating a race to the bottom in the use of groundwater. The discussion section analyses the findings, while the final section discusses the contribution of the article, its limitations and future research directions.

2 Liberalisation of trade, MNCs and VOC

MNCs have been important economic actors in Latin America, with strong participation in most economic sectors, especially manufacturing (Schneider, 2013). As such, they have been central actors in processes of social change caused by intensified globalisation, being the carriers of organisational and technological innovations, as well as competitive pressures. However, it has also been argued that the complementarity between MNCs and domestic firms has been primarily negative. Local firms have been pushed into sectors characterised by lower levels of skills and technologies (Schneider, 2013). In the last two decades, the importance of MNCs has increased along with the deregulation of national markets and the entry of MNCs into sectors previously dominated by national firms.

A positive view of the foreign direct investment (FDI) and international trade activities of MNCs sees them as agents in the diffusion of responsible practices (Husted and Allen, 2006; Lund-Thomsen and Nadvi, 2010) and as inducing a race to the top. In this view, the entry of imports into protected markets forces local producers in developing countries to upgrade their operations (Locke et al., 2007), as MNCs are able to influence the adoption of responsible practices coercively by exerting pressure on their local suppliers (Guler et al., 2002). Mosley and Uno (2007) show that FDI inflows are positively and significantly related to the rights of workers. MNCs may also urge governments directly to improve the rule of law and invest in social services and infrastructure (Richards et al., 2001). Sharfman et al. (2004) argue that institutional pressures are leading multinational firms to develop environmental management systems (EMS) to help them improve their environmental performance towards the highest common denominator. Local firms are led to comply with different standards and certifications in addressing the demands of international customers (Rocha and Granerud, 2011).

Others point to the negative impacts of these activities and claim that growing deregulation, the increasing importance of international trade and the new roles played by MNCs are likely to trigger a race to the bottom among emerging markets. Buckley and

Ghauri (2004) claim that the existence of unpriced externalities allows MNCs to impose costs (e.g., pollution) on the local economy and environment. Free-trade agreements allow MNCs to increase their capacity to externalise the environmental costs of their activities to local communities. Connected with the idea of externalities is the predictable race-to-the-bottom hypothesis, its main idea being that countries that are open to international trade and investment are likely to adopt lower standards of environmental regulation because of the fear of decreasing international competitiveness (Daly, 1993). In addition to the race of bottom, MNCs may respond to increasing stakeholder pressure at home by shifting their socially irresponsible practices to subsidiaries and suppliers located in *pollution havens*, that is, countries with weak stakeholder pressure (Surroca et al., 2013; Korten, 2015). Jorgenson (2006) has documented the links between the entry of MNCs and increases in the intensity of organic water pollution (see also Jorgenson, 2007). Redclift and Sage (1998) pointed to increasing evidence that transnational organisations have a negative impact on the environment. Similarly, Ross (2004) blames the internationalisation of MNCs for the re-emergence of sweatshops in China, which is clearly encouraging a race to the bottom among emerging countries, and even developed countries (Bonacich and Appelbaum, 2000).

However, recent research on the impact of growing participation in international trade and the strategies of MNCs has also shown that there is much variation between countries. Morris and Einhorn (2008) analyse the impact of Chinese imports on the South African clothing and textile sector and argue that its consequences are complex and multi-facetted: for some items the standard of imported garments has improved, to the benefit of consumers, but this has also forced the entire domestic industry to upgrade. Reinecke (2010) analyses the experience of Chile and argues that, after 45% of employment was lost as a consequence of the ending of international textile quotas, the quality of the remaining jobs has been poor, with clear tendencies towards precarisation and informalisation. In Chile, short-term flexibility strategies have helped enterprises survive, but they have also drawn the sector into a vicious circle of enterprise strategies causing poor employment quality, which in turn blocks more innovative enterprise strategies [Reinecke, (2010), p.41].

The impact of these new practices and organisational templates on local populations and the environment are disputable, and the social and environmental impacts of this continuous dislocation of production chains are likely to have prolonged consequences even when they are only temporary. Jenkins and Unies (2001, p.iii) discusses the implications of the growth of giant MNCs, "through which northern buyers control a web of suppliers in the south, has led to calls for the latter to take responsibility not only for aspects such as quality and delivery dates, but also for working conditions and environmental impacts". Little is known, however, about the specific responses of local actors to new competitive conditions and the reasons for variations in their responses.

This paper draws on a 'varieties of capitalism (VOC)' approach to investigate how firms operate and strategise in Brazil, an important emerging market which has faced intense international competition in consumer goods since the liberalisation of the internal market. The 'VOC' (Hall and Soskice, 2001) and 'business systems' approaches (Whitley, 1996, 1998, 1999) will be used as a framework to analyse different dimensions of economic life and show how the local institutional environment constrains and facilitates the actions of local firms in responding to the new market conditions. These two approaches share the understanding that firms' strategies depend essentially on the types of environment in which they are embedded. The VOC approach treats social actors

as acting within a framework of embedded economic relationships, shaped by a particular set of national institutional arrangements (Hollingsworth, 1997). The main idea is that the coordination and control of organisational processes are multifaceted, systemic phenomena which vary considerably between national institutional contexts (Whitley, 1996, 1999). Institutional arrangements as reflected in national legislation, the nature of property rights, governance systems and the nature of educational system shape the boundaries and possible paths for legitimate action. The VOC approach can help us direct our attention to some neglected areas and interactions between the new conditions of international competition, local institutions and the strategies of different economic actors in less developed countries (Schneider, 2013).The article follows the main goal in the historical institutionalism perspective, which is to identify complementarities among institutions and their effects on the interactions of economic actors (Schneider, 2013). Different types of 'institutional complementarities' can be positive or perverse, generating competitive advantages or disadvantages for different economic actors. Assessing potential positive and negative institutional complementarities will provide new insights into the analysis of the impacts of trade liberalisation policies and the strategic responses of local firms in emerging markets. It is necessary to detect the specific institutions that shape the allocation of resources among economic actors, which in turn may create path-dependent phenomena.

3 The local industry and the selection of cases

The textile and garment cluster we have been investigating is the third largest among Brazil's national producers, with more the 79,000 formal workers (IBGE, https://sidra.ibge.gov.br/home/ipp/brasil). The cluster is located in Fortaleza, the state capital of Ceará. During most of the last century, the state of Ceará was an important producer of cotton. However, during the 1980s the cotton industry was devastated by a pest which ended cotton production almost entirely. In spite of declining cotton production, the textile and garment sector has prospered due to the presence of an abundant labour force and lower costs than those encountered in southeast Brazil. Fortaleza is an interesting location because in recent years, with the crisis in the industry, companies have decided to move from the south and southeast to the northeast of the country, especially to Fortaleza, where salaries are lower and there is both plentiful labour and a rich infrastructure to support the industry. Thus, firms from all over the country have facilities in Fortaleza, which represents a very complex cluster, with all sizes of firms and all different types of activities represented. The local industry has been growing in recent years, with exports to other states, regions and countries. The management of water by the textile industry is particularly interesting because production is highly concentrated in an urban area and impacts on millions of inhabitants. At the same time, it is located in a region which faces a very uneven rainy season, with severe problems of water supply.

The local industry brings together very large multinational textile producers – among the largest and most modern in the world – and garment factories of various sizes and legal statuses. A large number of small producers are concentrated in the metropolitan area as well. An increasing proportion of these producers are informal firms that are not registered with the government bureaucracy, making it possible for them to bypass most local regulations and taxes.

Table 1   List of companies and areas of specialisation

Company	Garments	Textile	Own retail	Size/market	Market
Formal 1		x		Large –Brazilian multinational	International/domestic
Formal 2		x		Large – Brazilian multinational	International/domestic
Formal 3	x		x	Large – Brazilian multinational	International/domestic
Formal 4	x		x	Large	International/domestic
Formal 5	x		x	Medium size – export	International/domestic
Formal 6	x		x	Medium Size	Domestic
Formal 7	x		x	Small size	Domestic
Formal 8	x		x	Medium size	Domestic
Formal 9	x			Medium size	Domestic
Formal 10	x		x	Medium size	Domestic
Formal 11	x		x	Small size	Domestic
Formal 12	x		x	Small size	Domestic
Formal 13	x			Small size	Domestic
Formal 14	x		x	Small size	Domestic
Formal 15	x		x	Small size	Domestic
Formal 16	x		x	Small size	Domestic
Formal 17	x			Small size	Domestic
Laundry formal				Medium size	Domestic
Laundry informal				Small size	Domestic
Informal 1	x			Small size	Domestic
Informal 2	x		x	Small size	Domestic
Informal 3	x		x	Small size	Domestic
Informal 4	x		x	Small size	Domestic
Informal 5	x		x	Small size	Domestic
Informal 6	x		x	Small size	Domestic
Informal 7	x		x	Small size	Domestic
Informal 8	x		x	Small size	Domestic
Informal 9	x		x	Small size	Domestic
Informal 10	x		x	Small size	Domestic
Informal 11	x		x	Small size	Domestic
Informal 12	x		x	Small size	Domestic
Informal 13	x		x	Small size	Domestic
Informal 14	x		x	Small size	Domestic

During our field studies, we were highly fortunate in obtaining the important support of the local trade association. Thanks to its chairman, we faced no problems in arranging visits, interviewing the managers and owners of all sizes and legal statuses of firms, or

visiting firms of different sizes and degrees of specialisation. This strategy provided the basis for rich comparisons of various responses to the same structural changes (see Table 1). By means of this selection, we could analyse the similarities and differences in their responses, elucidating and explaining the possible variations, and illustrating how the same structural change can bring about different responses. There are clear differences between the textile and garment segments: they differ in many ways (e.g., capital versus labour intensity, size, levels of mechanisation in work processes, etc.). However, due to the interdependency between these two segments and for analytical purposes, they are treated in an undifferentiated manner.

The sample does not permit statistical generalisation, as the data were gathered by concentrating on a few cases in one locality. However, the industrial cluster of Fortaleza is the most important textile and garment cluster in Brazil and it is considered here as a critical case study. The cases provide opportunities for observing and describing a complex research phenomenon in a way that provides a basis for analytical generalisation. This was possible since we visited firms of all sizes and specialisation in the industry, conducted semi-structured interviews in which the interviewees were open and frank and trust was built up by the invaluable help of the chairman of the trade association, a central actor in the industry. The collection of data took place between November 2014 and March 2016, the author having been present for all interviews and visits. The intention was to achieve a systemic and deep knowledge of the local industry, following the tradition of research into national business systems (Kristensen et al., 2011). Due to national competitive conditions and the evolution of the national industry, the existence of relatively similar conditions which companies face in Fortaleza makes it possible to generalise analytically across the whole national textile and garments industry.

The great majority of these firms had no problem in providing us with full access to their facilities or providing internal reports. As the industry is highly concentrated in Fortaleza, if a firm declined to participate, it was not difficult to find a similar firm. However, among informal laundry firms, an important condition laid down by interviewees was that the conversations and visits to the sites could not be recorded, that every subject should be dealt with anonymously and that no individual should be identified. These important conditions had to be met before they would talk openly about their situation. Observations were therefore recorded in a fieldwork notebook after the visits and interviews.

3.1 Data collection and analysis

Data were collected from three sources:

1 semi-structured interviews

2 written and electronic documentation furnished by the companies and associations involved

3 articles in the national press.

We deploy an abductive approach and utilise a thematic analysis of narratives to investigate interactions between different actors and their experiences of industrial change. We interviewed 44 persons from 35 organisations, including 33 producers. These interviews lasted between twenty minutes and two hours, and in them we explored

different domains within the industry: textile companies (N = 2), garments (N = 15), laundries (N = 2), informal garment firms (N = 14), trade associations (N = 1) and state agencies (N = 1) (see Table 1). We collected and double-checked our findings using multiple sources and modes of evidence. Interviewees were chosen according to the guidelines for 'purposeful sampling' (Lincoln and Guba, 1985) using a 'chain sampling' strategy. We explored different domains within the industry: textile companies, fast-fashion firms, entrepreneurs, informal firms and trade associations. Triangulation was used to double-check the findings by using multiple sources and modes of evidence, and the verification process was built into the data-gathering process (Miles and Huberman, 1984). In the case of textile companies and laundries, the interviewee was tasked with being directly responsible for environmental matters within the firm, or had decision-making power with respect to environmental actions. The methodological approach is abductive, the intention being to capture and take advantage of, not only the systemic character of the empirical world, but also of the systemic character of theoretical models [Dubois and Gadde, (2002), p.556]. Thus, it enables the formulation of new hypotheses and theories based on surprising research evidence (Reichertz, 2007, Timmermans and Tavory, 2012).

As Eisenhardt and Graebner (2007) point out, interviewing informants from a variety of groups and social positions reduces the risk that all our informants will engage in biased, convergent, retrospective sense-making. In our analysis, we assess the environmental impact from the extent to which firms violate, comply with or go beyond local government regulations. We have based our considerations on firms' own self-evaluations, trade association reports and government agency reports.

Our application involves assigning themes and concepts to a selected unit, such as sentences taken from interviews, newspaper articles, industry reports and websites. To discover patterns, we use constant comparisons and related open and axial coding techniques. The data were categorised under eight themes: institutions, environment, multinationals, changes, market conditions and competition, formal versus informal firms, government and imported products. Within each theme, codes were developed inductively. For instance, under 'change', the codes included time horizon, investment, technological change, outsourcing, innovation, formal versus informal, efficiency and conflict. We related codes to each other inductively, invoking the generative questions of who, what, where, when, why, how and with what consequences.

4   The evolution of local conditions: the ending of international quotas and the opening up of the local market

The textile and garment industry is a labour-intensive industry that creates millions of jobs, Brazil being the fifth largest producer worldwide. During the period of import substitution polices (ISP), Brazilian garment and textile firms were large but inefficient, with long lead times, minimum production batches that were too large and defective quality control, like other industries in developing countries (Zeitlin and Totterdill, 1989). Garments and textiles were examples of technologically backward sectors. As Posthuma and Bignami (2014) argue, until recently Brazil remained a largely self-contained, 'producer-consumer' country dominated by national retailers and global retailers and brands accounting for a small proportion of domestic apparel sales: "The national value chain in the Brazilian apparel industry encompasses the full range of economic activities

spanning from locally-grown cotton, the production of cotton and synthetic fabric, the manufacturing stages of cut, make and trim (CMT), full package production, full package with design (otherwise known as original design manufacturing, ODM) and original brand manufacturing (OBM) to the final sale of the ready-made garment" (ibid:350).For the garments and textile industries, the institutional changes which occurred with the ending of the ISP regime represented the start of a decade of restructuring which culminated in the elimination of global textile quotas in 2005.

The lower level of competitiveness that emerged during the ISP period resulted in declining shares of Brazilian products reaching international and even domestic markets in the years after liberalisation. Foreign and national MNCs retailers started bringing Asian garments and fabrics to the Brazilian market, as these can be sold in Brazil at a much lower price than Brazilian producers are able to produce at locally. Brazil is moving rapidly to become an importer of textile products and made-up goods. The trade deficit is widening, having increased by an average of 29% a year between 2009 and 2013 to reach USD 4.5 billion. When manufactured textiles and made-up articles (apparels, home textiles, technical-industrial articles) are taken into account, the share of the trade balance deficit was 46% and 54% in 2009 and 2013respectively (IEMI, 2014).

The deregulation of national markets created a new competitive environment in which foreign MNCs, retailers and local multinationals started incorporating international trade as an important component of their strategies, some of their products being produced locally (mostly fast-fashion), which could not be provided by Asian producers due to their distance from the market and the consequent time lag. Standard products are increasingly being imported and sold in the local market by both international and national retailers, a strategy that could not be pursued earlier due to import barriers and taxes.

Three types of firms characterise the industry. First there are the large, resourceful companies which have succeeded in the national market and even in international markets. In this group we find both textile and garments firms with more than five hundred employees. These firms are usually part of a much larger national conglomerate. The second category consists of medium-size firms, successful companies at the national level, with their own trademarks, but with more limited financial resources than the first group, competing for consumers from the middle and high-middle classes, and with between fifty and five hundred employees. Small companies, with fewer than fifty employees, face severe financial obstacles to upgrading, have no trademark, are likely to participate in supply chains for larger national and multinational retail firms, and are also likely to sell copies of fast fashion at a lower price directly to consumers. These firms are likely to be in the grey zone between formal and informal activities.

5 The new patterns of consumption and imported products

During the 2000s a major new source of growth in Brazil emerged, with more than 35 million inhabitants having been elevated to the middle classes thanks to rising wages, easy credit for higher education, higher commodity prices in international markets, redistribution policies and expensive but easy consumer credit. The Lula years became a new economic miracle in Brazilian history, with the middle classes growing from 38 percent of the population in 2003 to over 60% by 2015 or over 120 million people (Power, 2016). A formidable change in consumption patterns occurred in all social

classes, with consumption being upgraded from basic necessities to include consumer durables and services. In the period between 2003 and 2012, the population grew by 9%, while Brazilians' incomes grew by 39% (IBGE, https://sidra.ibge.gov.br/home/ipp/brasil). Although textile and garment production practically stagnated, the consumption of garments per head of population increased by 58% (IEMI, 2014). Contrary to the tendencies in most economies, there was a decline in inequality. The Gini coefficient of labour earnings in Brazil fell by 20 percent between 1995 and 2012, from 0.5 to 0.4 (Ferreira et al., 2016). At the same time, in order to control inflation, monetary policies kept the exchange rate over-valued, which made the internal market more attractive to imports. This development is evident in the textile industry and shows the incredible evolution in the percentage of imports from China, in contrast with the stagnant local industry (see Figure 1).

Figure 1   The development of the industry: production, exports, imports and national consumption of textiles and garments (see online version for colours)
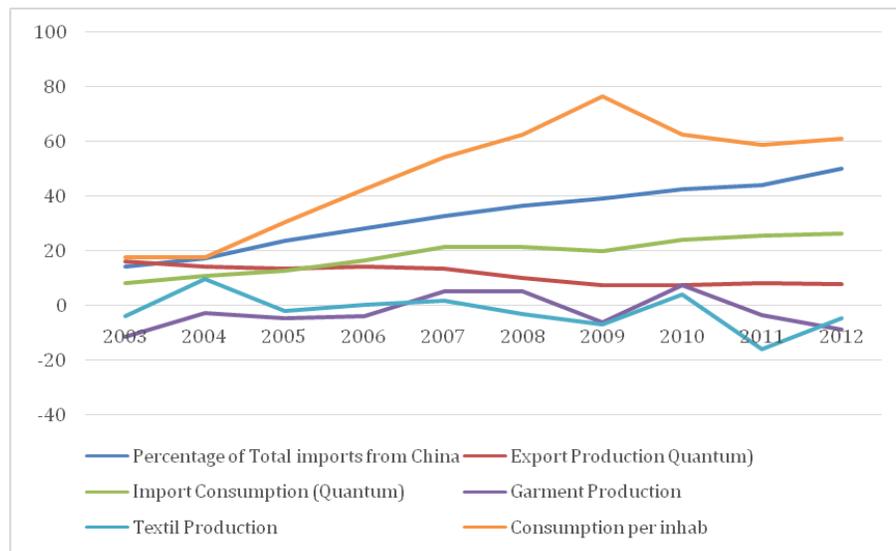
Notes: Percentage (Y), year (X)

Source: IBGE (https://sidra.ibge.gov.br/home/ipp/brasil) and IEMI (2014)

6   The local institutional complementarities: the role of the Brazilian national development bank

The government plays an important role in the textile and garments industry, mainly in the form of financial support for technological and organisational upgrades. Financial support is organised by state-owned banks, which has proved to be an effective way of supporting the development of the national industry. However, the primary means of raising investments are the state-owned banks, mainly the Brazilian National Development Bank (BNDES), one of the largest development banks in the world, which offers much lower borrowing costs than the private sector. As an important resource for

firms, these loans are primarily given to high-performing large firms and firms connected with close political circles (Claessens et al., 2008). State-owned banks have shown a clear and documented inclination to finance firms that support or are owned by politicians. Claessens et al. (2008) show that firms that contributed to political campaigns substantially increased their leverage with the state-owned banks after each election. This constitutes a very important feature for the upgrading and survival of firms not only in the textile and garments industry, but in the whole of Brazilian business, since Brazil is among the countries with the highest interest rates and lowest degree of financial intermediation in the world (Claessens et al., 2008).This does not mean that the BNDES supports low-performing firms. An important feature of the financial support provided by the BNDES is that the analysis involves several dimensions, including the social and environmental aspects (Lucon and Rei, 2006). However, it has been shown that small companies face severe difficulties in financing any technological upgrade and are more likely to have their request rejected by BNDES than large firms (De Negri et al., 2006). Firms which are unable to gain access to the lower interest rates provided by state-owned banks are likely to face strong barriers to their success. Large companies derive their competitive advantages from a combination of access to cheaper financial resources provided by the state, relatively low labour costs and a pool of skilled workers educated by the state-controlled vocational schools and technical schools. As a result of the close links between large corporations and politicians, powerful national groups are more likely to succeed in creating institutional arrangements that are conducive to their needs. Unsurprisingly, all the large companies involved in this research have contributed legally to political campaigns[1], though naturally this cannot be taken as a straightforward indication that they are favoured by politicians and state-owned banks. Nonetheless this confirms the links between successful industrialists and politicians. Resourceful companies are conceptualised here as firms that are able to access a pool of financial and technological resources provided by the state.

7　National water management regulations

After centuries of the neglect of natural resources and increasing problems with water shortages and pollution, Brazilian policy-makers moved towards a new understanding of water as a finite resource that requires ecological considerations and that the state should control use of, both nationally and locally, in an integrated, participatory and transparent way. In recent decades, regulatory agencies have increased environmental demands and enforcement activity (Abreu, 2011). The 1997 National Water Act defines water use, and the National Water Agency (ANA) was subsequently created to supervise its management. The changes of recent decades have been remarkable (Felicidade et al., 2001; Benjamin et al., 2004). The Federal Constitution characterises all water as a public good belonging either to the federation or the states, meaning that any use of water in Brazil should be supervised by the state and that water resources cannot legally be privatised. This has severe implications for the textile industry, which must be constantly supervised by the ANA, since no use of groundwater is permitted without a license provided by the state (see Table 2). However, the lack of human resources nationally and locally directed towards the monitoring and enforcement of water quality makes it difficult to supervise all areas, and makes enforcement in relation to informal firms very

unlikely. Surveillance and enforcement are therefore concentrated on formally constituted firms.

Table 2   The level of organizational resources and pressure of stakeholders to conform.

Environmental laws	Year	Summary
Law no. 9.433	1997	Water resources management system is created.
		National Water Agency (ANA) is created that is responsible for water resources planning at the national level. The ANA is responsible for providing support to the state and local levels and requires licenses for water withdrawals and wastewater discharges. Water allocation is the responsibility of watershed committees, which are composed of the government, stakeholders and civil society.
Law no. 11.445	2007	Establishes guidelines for water use and sanitation services. It addresses the several regulatory aspects of service provision, including regulatory responsibility at different administrative levels (Galvão et al., 2008).
Law (*portaria*) no. 2.914	2011	Draws up a drinking water governance system and grants the responsibility for promoting and monitoring compliance to the Federal Health Secretary and corresponding state agencies.

8   The race to the top among resourceful firms

Brazilian producers mostly greet the idea of their integration into a global supply chain dominated by large retail MNCs with suspicion or even rejection. One alternative to integration into global supply chains is for firms located in less developed countries to upgrade and compete directly in national and international markets. The alternative to firms becoming highly dependent on MNCs retailers has been for them to start their own trademarks, organise their own supply chains and start their own retail stores, or else sell to national retail companies. This does not exclude the possibility of working for international firms, but as a rule dependence on them is avoided. However, in order to integrate themselves into the supply chain in a less dependent manner, large and medium-size firms should be able to upgrade their technological-bases. Transfers of knowledge occur among large and medium-size producers in a number of different areas. The managing director of one legalised laundry firm was able to upgrade its water system with the help of knowledge acquired from larger producers:

> "The whole treatment process of these textiles is chemically heavy; we use very strong chemicals, and previously we discharged the wastewater into the public system. This is forbidden, so we have to build our own system to clean and re-use the water, and it works very well. The public authorities have been here and tested the whole system, which was approved. We used all kinds of resources to build it, but we face severe financial limits. But firms which do not upgrade move into other areas, go informal and avoid state surveillance."

Internal reports and external evaluations show that large firms have significantly increased their re-use of water and reduced the quantities of effluents they discharge. All the large textile firms in our study have been certified as being in compliance with ISO 14001, an internationally recognised standard. Internal reports point to an increasing

proportion, up to 70%, of water being re-utilised. The financial manager of one textile firm linked environmental management to the financial support of the state:

> "In order to utilize the fiscal benefits, the company environmental management system needs to be in compliance with all regulations – the two things are well interconnected." (Finance Manager, formal 1)

In our sample, one of the largest textile manufacturers is a Brazilian MNC and a world leader in various textile segments, which has initiated a series of internal processes to utilise resources better and recycle materials. It has recently launched a product made from recycled plastic bottles, and biomass is used in the production process instead of fuel. The result is that the company has reduced its monthly carbon emissions by around 10,000 tons. Formal producers avoid being dependent on one customer or a single supply chain. This enforces compliance with different standards in different areas of production, for natural resources as well as labour. The high-quality/higher priced producers are suppliers of well-known American and European brands, which force them to have higher production standards:

> "We face two main pressures. The costs of water are too high for us to not reuse it –our water is precious.[And] government surveillance is pretty strong… We also export to Europe, so we must follow all the European regulations and standards as well." (Top manager, formal 1)

> "We produce and sell (under license) a very famous American Brand 'P'. They are extreme: everything is verified, any irregularity, and we can lose a very important source of income, besides been prosecuted. Everyone in the world knows this brand – they are extreme meticulous during evaluations." (Top manager, formal 5)

Government agencies supervise firms' use of water and the production and disposal of waste closely. According to our interviewees, there is no indication that the government has reduced the monitoring, control and surveillance of natural resources, or lowered the regulatory bar. On the contrary, examples of cooperation between different spheres of the state in upgrading the technological basis for improving the use of resources can be found in different localities, and experimental processes of cooperation, even in judicial and procedural respects, have taken place in poor regions (see Almeida, 2008).

Large and medium-size formal firms use up-to-date systems of water treatment, and their internal reports describe how sustainability actions have been evaluated and documented. Environmentally responsible practices seem to be the rule rather than the exception among formal textile and garment companies, which, with very few exceptions uncovered by the press and in research (Mascarenhas et al., 2014), follow the regulations. Government policies support a regulatory environment in which responsible business practices are vigorously encouraged (Almeida, 2008).

A sensible improvement in the use of natural resources can be seen in these companies, and it is clear that for formal firms a race to the bottom would not pay off, as the environmental legislation is tough and the government's surveillance effective. Large firms cannot avoid the surveillance of the state, and even medium-size firms, including those with fewer financial resources, have been able to implement new technologies to re-use water. A common observation made by interviewees was that the tough rules governing the use of water and the tight surveillance of governmental agencies represent the central drivers of their upgrades. Spill-over effects, in terms of the cascading of

knowledge, take place within the local supply chain. However, it is the international standards that provide the tools for learning and improvement.

9   Informality as a race to the bottom

In recent years, the increases in imports from Asian countries have been pressing local producers to improve products and processes. In order to improve productivity and reduce costs, local firms have radically changed their ways of organising and collaborating with each other. However, many firms that have been upgrading their processes and products consider their competition with local firms and MNCs retailers that import and sell Asian products to be a fight that is impossible to win. All interviewees claimed that competitors selling standardised Asian products are unbeatable under current conditions.

Local producers are able to compete in terms of quality, considering their products to be superior to Asian products, as well as the speed of their response to fast-fashions. Nonetheless those that still compete with Asian products have been driven into informality, as informal firms seek to reduce costs by avoiding local regulations and taxes. Firms are more likely to bypass the legislation on established labour rights and working conditions since they also use informal contracts with labour. However, in recent decades the evolution of labour law and the creation of a minimum welfare state have made workers less willing to accept degrading working conditions, as they are able to survive under the umbrella of the welfare system. Exceptions have been reported, as some firms have used immigrants and slave labour as well (Mascarenhas et al., 2014). Thus, firms which enter the informal economy reduce costs by avoiding taxes and environmental legislation.

For small laundries, informality means avoiding any kind of surveillance from state agencies, which is possible because it is difficult for such agencies to locate informal production sites. As the informal sector has been growing rapidly in recent years, its environmental hazards have become highly significant. The extent of informality in the textile and garment sector is not precisely known, but the informal workforce already represents20.1% of the total workforce in Fortaleza (Mesquita, 2008).

The government and the public agents responsible for controlling the use of natural resources are aware of the problems created by the informalisation of production. In spite of the fact that Brazil has a well-developed body of environmental law, the resources provided for its enforcement are not extensive. As a result, the public environmental agencies do not have the necessary resources to supervise informal producers. We have identified the use of informal laundry firms among all informal garment firms. The real size of the informal sector is rather difficult to measure, and its economic importance is not reflected in the formal data. Other sectors present similar problems (see Amorim and da Mata, 2009).

The informal night market located in the centre of Fortaleza gives a good idea of the size of the informal sector. During three nights every week, between 19:00 and 08:00 in the morning of the next day, hundreds of small producers and small retailers gather around the cathedral, and thousands of buyers from the city and other states come to acquire products to be resold in their hometowns. These producers and retailers sell their own products and products imported from Asian countries to thousands of local and regional buyers.

The informal firms in the garment sector represent an important share of the market, not only because they are able to avoid environmental regulations and surveillance, but also because government agencies have been unable to enforce the regulations, as they do not have precise knowledge concerning the use of water by informal firms. One officer at the local environmental agency explained what happens among informal firms concerning water capture:

> "To capture water from the ground is a highly-regulated activity; any new sources should be registered, but there are the older sources that the government does not have any registration of. Then, informal laundry firms capture water from unregistered sources, do not re-use it, and put it back into the ground, polluting the whole reservoir."

The situation of small laundries is disturbing, as the physical work environment is heavily polluted, the wastewater treatment is poor, and the tankers emit strong gases. Managers and workers try to reduce the potential damage out of fear of the environmental agency. In our interviews managers admitted that they know the problems they are causing, but also emphasised that they do not have the resources to solve them. The owner of one small informal laundry revealed a somewhat surprising view of the way his company deals with water:

> "We are not happy with the way we use water – it is wrong, it is bad, I feel bad about it – but what can I do? If I follow the rules the laundry will close its doors. Should I fire all my employees and go home? I try to improve the system, but I know that it is far from being enough. At least I try to minimize the damage."

Depending on the production outcome, implementing a production system which re-uses water is a complex and very expensive process, which many firms cannot afford under the current competitive circumstances and due to the lack of proper financial channels. As they find themselves struggling for economic survival, implementing costly processes is not a strategy they even consider. Informal laundries therefore move into very poor neighbourhoods and slums, where even the police face difficulties of access. The owner and general manager of one formal laundry, which has upgraded its water treatment system, told us about the previous conditions during the course of a very candid interview:

> "The market for some products can be very good for sometime, but they go up and down. Sometimes at peak periods we put so much water in the public system that the residues cannot flow properly; as a result, the dirty water comes back through the sewage systems into the houses located downstream. We promptly reimburse the damage to avoid the involvement of public agencies, plus we give them a new television or refrigerator and then keep it going." (Formal laundry, general manager)

According to one government official working in the water resources department:

> "The city is facing a serious water problem. Beyond the fact that we are located in a semi-dry region, with very irregular rainy seasons, the use of groundwater is totally out of control […]So many firms are capturing water irregularly, and a great deal of the disposal of residual wastewater is illegal, and it is contaminating the groundwater. It's a tragedy."

Putting contaminated water into the public system not only affects poor neighbourhoods, it also impacts on the whole water reservoir, as some of the water is sent into open areas

sourcing groundwater. There is no indication that companies blame the high standards that the ANA has laid down for their difficulties. Surprisingly they blame themselves for this polluting survival strategy and hold themselves responsible for the environmental degradation that results.

10 Discussion

We started this research with two contrasting expectations concerning the ways in which local actors would respond to the new international and national market conditions: inducing a 'race to the bottom' or a rush to the top in the use of resources. The literature predicts a race to the bottom, in which the international environment is increasingly reducing restrictions on trade and capital flows, worsening the impact on developing countries. Local governments may lower the bar concerning environmental requirements, and pollution havens will emerge. By contrast, the effects of trade liberalisation and the entry of MNCs into emerging markets could be positive, as MNCs are carriers of knowledge and responsible practices. This research focuses on the responses of local actors of different levels, sizes and modes of insertion into the economy to liberalisation of trade. The focus was the impact of the new competition on the use of natural resources, mainly water in a water-poor region.

The analysis shows a more complex effect of the liberalisation of trade, combined with the penetration of imported products into this previously protected market. Imported products are currently dominating the middle range of consumer markets, taking up spaces previously occupied by the products of small and medium-size companies, and pushing local firms in quite opposite directions. Resource-rich firms are moving towards the high end of the industry, while resource-poor firms are entering a race to the bottom through informalisation. Local companies' responses to these new competitive conditions are more complex than a straightforward race to the bottom or a rush to the top. Our analysis indicates that the race to the top and the race to the bottom are both linked with the new structures of competition.

First, the regulations concerning the use of natural resources have not been downgraded, and there is no indication of a race to the bottom developing as a response to policies aimed at attracting FDI. In fact, formal firms are likely to follow environmental regulations, thus contradicting the expectations of the race-to-the-bottom hypothesis, which predicts lower levels of state regulation to cope with increasing international competition. Contrary to predictions that pollution havens will emerge, the domestic regulations dealing with the environment in Brazil have not been downgraded. There are severe constraints and fierce regulations on the use of natural resources by firms. We show that the response of the high end of the industry to international competition has been to upgrade products and processes. There are four drivers of this virtuous circle: a tough environmental law, stringent surveillance, the fact that state financial support for upgrading industrial processes is linked to improvements in EMSs, and the implementation of international standards to please international buyers. Resource-rich firms that are competing in terms of quality and efficiency avoid competition based on lowering standards of processes and products. Formal and resource-rich firms, when exposed to the demands for environmental compliance from the government and international buyers, tend to upgrade their environmental management processes and technologies.

An apparent paradox is emerging from the strength of the local regulations. Formal firms do upgrade their technologies to make better use of natural resources, and government assessments are quite positive about their achievements. However, as not all firms are able to improve their products and processes, those that cannot afford to invest heavily in upgrading are pursuing a different strategy. The competition has pushed many firms into informality, where regulations are not respected, which in turn leads to a degradation in the use of resources because informal firms are more likely than formal firms to bypass governmental regulations in order to reduce production costs. Informal firms are clearly participating in a race to the bottom concerning the use of organic water. Their financial difficulties in investing in upgrading their technologies have driven them to avoid government control, which in turn is leading the informal sector into a race to the bottom through its overuse of natural resources. Usually, the informal market in emerging countries is understood as an entry strategy for many small firms (Amorim and da Mata, 2009; Djankov et al., 2003). This entry strategy still is an option for small entrepreneurs in Brazil, though more and more companies are being driven from formality into informality in order to compete with imported products.

As our qualitative evidence shows, the new market structure introduces competition at different levels and connects previously unconnected regions and locations in the same market place. Different stakeholders exercise pressure on firms to improve environmental performance, being resource providers, environmental agencies and customers. For the larger, more resourceful companies, competition does not have a negative effect on the management of environmental resources, as their providers of financial resources and international customers are likely to assess their environmental performance continuously. However, even when national regulations reduce the risk of an environmental race to the bottom, such a race may take place among informal firms. The exposure of local resource-weak companies to international competition will tend to drive them into informality, where there are weak (if any) pressures to conform, and consequently into a race to the bottom in their use of natural resources. The internationalisation of competition into previously protected markets is increasing the gap between resource-rich and resource-poor companies. The matrix linking the level of organisational resources and the pressure of stakeholders to conform describes four generic types of responses (Table 3).

Table 3 The level of organisational resources and the pressure of stakeholders

Organisational resources	Stakeholders' pressure to conform	
	Relatively weak	*Strong*
Strong	Follow only the legal requirements	Race to the top
Weak	Race to the bottom	Move into informality

11 Conclusions

The present paper has sought to contribute to the recent literature on the responses of textile and garments firms to the changes that have taken place during the last decade, namely the ending of international quotas for textiles and garments, and the reduction of trade barriers. The development of a national consumer market that has gained millions of new consumers during the last decade has also had an impact on the attractiveness of

the Brazilian market for MNCs. The incredible growth of the Brazilian economy under Luiz Inácio Lula da Silva in the early 2000s came through the combination of economic liberal policies (opening up to trade),the construction of a national welfare regime and the international increase in commodity prices, which became central to Brazilian exports. This was parallel to large increases in credit and consumption. The consumption of textiles and garments grew by 61% between 2003 and 2012, from 8.5 kg to 13.7 kg per head of population, making the Brazilian market highly attractive to international producers and retailers.

These new liberal policies forced local companies into much fierce competition, which has become transnational. The paper has explored how the textile and garment industry in Brazil responded to the changes that have taken place in its domestic and international markets by paying particular attention to the effects of this transformation on the use of water, a major natural resource in the industry.

The de-regulation of the industry made possible the import of cheap products, and the entry of transnational retailers has intensified competition, causing two diametrically opposite responses from local producers. The larger, more resourceful producers with easier access to government support have entered a race to the top, being able to upgrade products and processes, including the use of water and the reduction of wastewater. The financial support of state-owned banks has made it possible for these companies to occupy a space in the top segment of the textile and apparel industry and to follow the standards imposed by legislation, one result being an upgrade in the use of water. Synergetic complementarities emerge when large firms do upgrade with the financial support of BNDES and are placed under the surveillance of environmental agencies and international customers. However, many small producers, in order to compete with cheap imports, have taken the road of informality and have fallen under the radar of the regulatory agencies, thus triggering a race to the bottom in the use of resources which is increasingly out of control and likely to provoke long-term damage to the locality. Our study suggests that perverse complementarities (Schneider, 2013) exist between the difficulty in accessing cheaper loans from state-owned banks to support technological and organisational upgrades and the weak enforcement of environmental regulations over the informal sector. As small companies are unable to compete with standardised imported products, informality becomes an option for survival but makes it practically impossible for them to upgrade, as they become non-existent for the state-owned banks.

Given that the informal sector across emerging markets is of sizeable importance, research must pay greater attention to how the informal economy responds to local regulations and international competition. Therefore, we believe that only the international environmental certification of the whole supply chain, combined with the effective enforcement of environmental law, can reduce the risks that trade liberalisation will contribute to the depletion and destruction of natural resources.

This study is not without its limitations. It relies on self-reported measures provided by managers, and no environmental analysis was conducted. While we recognise the limits of generalising from a single country and a small number of cases, our results suggest the value of thinking about how international trade liberalisation might impact on multiple levels of an industry, depending on the local institutional environment and the positive and perverse complementarities that affect industrial upgrading and environmental management.

References

Abreu, M.C.S. (2011) 'Effects of environmental pressures on company sustainability strategies: an interview study among Brazilian manufacturing firms', *International Journal of Management*, Vol. 28, No. 3, p.909.

Almeida, M. (2008) 'Understanding incentives for clustered firms to control pollution: the case of the jeans laundries in Toritama; Pernambuco, Brazil. InPuppim de Oliveira', in de Oliveira, J.P. (Ed.): *Upgrading Clusters and Small Enterprises in Developing Countries: Environmental, Labor, Innovation and Social Issues*, pp.107–134, Ashgate, Aldershot.

Amorim, M.A. and da Mata, D. (2009) 'The Cariri region of Ceará and the footwear cluster. In Zhang, M. (Ed.). (2009). *Competitiveness and Growth in Brazilian Cities: Local Policies and Actions for Innovation*, World Bank Publications, Washington, DC.

Bansal, P. and Knox-Hayes, J. (2013) 'The time and space of materiality in organizations and the natural environment', *Organization & Environment*, Vol. 26, No. 1, pp.61–82.

Bansal, P. and Roth, K. (2000) 'Why companies go green: a model of ecological responsiveness', *Academy of Management Journal*, Vol. 43, No. 4, pp.717–736.

Becker-Olsen, K.L., Cudmore, B.A. and Hill, R.P. (2006) 'The impact of perceived corporate social responsibility on consumer behavior', *Journal of Business Research*, Vol. 59, No. 1, pp.46–53.

Benjamin, A.H., Marques, C.L. and Tinker, C. (2004) 'The water giant awakes: an overview of water law in Brazil', *Tex L. Rev.*, Vol. 83, No. 7, p.2185.

Bonacich, E. and Appelbaum, R. (2000) *Behind the Label: Inequality in the Los Angeles Apparel Industry*, University of California Press, Berkeley.

Brasil (Government) (2013) *Mapa das micro e pequenasempresas (Map of Micro and Small Enterprises* [online] http://www.brasil.gov.br/empreendedor/empreendedorismo-hoje/o-mapa-das-micro-e-pequenas-empresas (accessed accessed February 2017).

Buckley, P.J. and Ghauri, P.N. (2004) 'Globalisation, economic geography and the strategy of multinational enterprises', *Journal of International Business Studies*, Vol. 35, No. 2, pp.81–98.

Chan, J., Pun, N. and Selden, M. (2013) 'The politics of global production: Apple, Foxconn and China's new working class', *New Technology, Work and Employment*, Vol. 28, No. 2, pp.100–115.

Christmann, P. (2004) 'Multinational companies and the natural environment: determinants of global environmental policy', *Academy of Management Journal*, Vol. 47, No. 5, pp.747–760.

Claessens, S., Feijen, E. and Laeven, L. (2008) 'Political connections and preferential access to finance: the role of campaign contributions', *Journal of Financial Economics*, Vol. 88, No. 3, pp.554–580.

Daly, H.E. (1993) 'The perils of free trade', *Scientific American*, November, Vol. 269, No. 5, pp.51–55.

De Negri, J.A., Lemos, M.B. and de Negri, F. (2006) *The Impact of the University Enterprise Incentive Program on the Performance and Technological Efforts of Brazilian Industrial Firms*, OVE Working Paper No. 13/06.

Djankov, S., Porta, R.L., Lopez-de-Silane, F., Shleifer, A. and Botero, J. (2003) *The Regulation of Labor*, No. w9756, National Bureau of Economic Research.

Dubois, A. and Gadde, L.E. (2002) 'Systematic combining: an abductive approach to case research', *Journal of Business Research*, Vol. 55, No. 7, pp.553–560.

Dunning, J.H. (1994) 'Multinational enterprises and the globalization of innovatory capacity', *Research Policy*, Vol. 23, No. 1, pp.67–88.

Eisenhardt, K.M. and Graebner, M.E. (2007) 'Theory building from cases: opportunities and challenges', *Academy of Management Journal*, Vol. 50, No. 1, pp.25–32.

Felicidade, N., Martins, R.C. and Leme, A. A. (2001) *Uso e gestãodosrecursoshídricos no Brasil*, Vol. 1, RiMa.

Ferreira, F.H., Firpo, S.P. and Messina, J. (2016) 'Understanding recent dynamics of earnings inequality in Brazil', in Schneider, B. (Ed.): *New Order and Progress: Development and Democracy in Brazil*, pp.187–211, Oxford University Press, Oxford.

Galvão Junior, A.D.C., Turolla, F.A. and Paganini, W.D.S. (2008) 'Viabilidade da regulaçãosubnacionaldosserviços de abastecimento de água e esgotamentosanitáriosob a Lei 11.445/2007', *EngenhariaSanitária e Ambiental*, Vol. 13, No. 2, pp.134–143.

Guler, I., Guillén, M.F. and Macpherson, J.M. (2002) 'Global competition, institutions, and the diffusion of organizational practices: the international spread of ISO 9000 quality certificates', *Administrative Science Quarterly*, Vol. 47, No. 2, pp.207–232.

Hall, P.A. and Soskice, D. (Eds.) (2001) *Varieties of Capitalism: The Institutional Foundations of Comparative Advantage*, OUP Oxford, UK.

Hollingsworth, J.R. (1997) *Contemporary Capitalism: The Embeddedness of Institutions*, Cambridge University Press, New York.

Husted, B.W. and Allen, D.B. (2006) 'Corporate social responsibility in the multinational enterprise: strategic and institutional approaches', *Journal of International Business Studies*, Vol. 37, No. 6, pp.838–849.

IBGE [online] https://sidra.ibge.gov.br/home/ipp/brasil (accessed February 2017).

Institute for Studies and Industrial Marketing (IEMI) (2014) *The Brazilian Textile Industry Sectoral Report 2014*, Produced by IEMI with support from ABIT/TEXBRASIL and APEX (The Brazilian Agency for Promotion of Exports and Investments), São Paulo.

Javorcik, S.B. (2004) 'Does foreign direct investment increase the productivity of domestic firms? In search of spillovers through backward linkages', *The American Economic Review*, Vol. 94, No. 3, pp.605–627.

Jenkins, R. and Unies, N. (2001) *Corporate Codes of Conduct: Self-Regulation in a Global Economy, Technology, Business and Society*, Programme Paper Number 2, United Institute for Socio development (UNIRSD).

Jenkins, R., Pearson, R. and Seyfang, G. (2002) 'Introduction', in Jenkins, R., Pearson, R. and Seyfang, G. (Eds.): *Corporate Responsibility and Labour Rights: Codes of Conduct in the Global Economy*, pp.1–10, Earthscan Publications, London.

Jorgenson, A.K. (2006) 'The transnational organization of production and environmental degradation: a cross-national study of the effects of foreign capital penetration on water pollution intensity, 1980–1995', *Social Science Quarterly*, Vol. 87, No. 3, pp.711–730.

Jorgenson, A.K. (2007) 'Does foreign investment harm the air we breathe and the water we drink? A cross-national study of carbon dioxide emissions and organic water pollution in less-developed countries, 1975 to 2000', *Organization and Environment*, Vol. 20, No. 2, pp.137–156.

Korten, D.C. (2015) *When Corporations Rule the World*, 20th anniversary edition, Berrett-Koehler Publishers.

Kristensen, P.H., Lotz, M. and Rocha, R. (2011) 'Denmark: Tailoring flexicurity for changing roles in global games', in Kristensen, P.H. and Lylia, K. (Eds.): *Nordic Capitalisms and Globalization: New Forms of Economic Organization and Welfare Institutions*, p.86, Oxford University Press, Oxford.

Lall, S. and Narula, R. (2004) 'Foreign direct investment and its role in economic development: do we need a new agenda?', *The European Journal of Development Research*, Vol. 16, No. 3, pp.447–464.

Lincoln, Y.S. and Guba, E.G. (1985) *Naturalistic Inquiry*, Vol. 75, Sage.

Locke, R., Kochan, T., Romis, M. and Qin, F. (2007) 'Beyond corporate codes of conduct: work organization and labour standards at Nike's suppliers', *International Labour Review*, Vol. 146, Nos. 1–2, pp.21–40.

Lucon, O. and Rei, F.C. (2006) *OECD Trade and Environment*, OECD working paper, Paris.

Lund-Thomsen, P. and Nadvi, K. (2010) 'Global value chains, local collective action and corporate social responsibility: a review of empirical evidence', *Business Strategy and the Environment*, Vol. 19, No. 1, pp.1–13.

Mascarenhas, A.O., Dias, S.L.F.G. and Baptista, R.M. (2014) *How Does Brazil Fight Contemporary Slavery?*, in Gudic, M., Rosenbloom, A. and Parkes, C. (Eds.): *Socially Responsive Organizations and the Challenge of Poverty*, pp.134–144, Principles of Responsive Management Education, Greenleaf Publishing, Shefield, UK.

Mesquita, E.C. (2008) *Informalidade no mercado de trabalho de Fortaleza: dimensão e características*, Instituto de Desenvolvimento do Trabalho, Fortaleza.

Miles, M.B. and Huberman, A.M. (1984) *Qualitative Data Analysis: A Sourcebook of New Methods*, Sage, Beverly Hills, CA.

Morris, M. and Einhorn, G. (2008) 'Globalisation, welfare and competitiveness: the impacts of Chinese imports on the South African clothing and textile industry', *Competition and Change*, Vol. 12, No. 4, pp.355–376.

Mosley, L. and Uno, S. (2007) 'Racing to the bottom or climbing to the top? Economic globalization and collective labor rights', *Comparative Political Studies*, Vol. 40, No. 8, pp.923–948.

Posthuma, A. and Bignami, R. (2014) 'Bridging the gap': public and private regulation of labour standards in supply chains of Brazil′s apparel industry', *Competition and Change*, Vol. 18, No. 4, pp.345–364.

Power, T.J. (2016) 'The reduction of poverty and inequality in brazil political causes, political consequences', in Schneider, B. (Ed.): *New Order and Progress: Development and Democracy in Brazil*, pp.212–240, Oxford University Press, Oxford.

Redclift, M. and Sage, C. (1998) 'Global environmental change and global inequality north/south perspectives', *International Sociology*, Vol. 13, No. 4, pp.499–516.

Reichertz, J. (2007) 'Abduction: the logic of discovery in grounded theory', in Bryant, A. and Charmaz, K. (Eds.): *Handbook of Grounded Theory*, pp.214–28, Sage, London, England.

Reinecke, G. (2010) 'Upgrading or decline? Globalization, retail structure, and labour in the Chilean textile and clothing industry', *Competition & Change*, Vol. 14, No. 1, pp.23–47.

Richards, D.L., Gelleny, R.D. and Sacko, D.H. (2001) 'Money with a mean streak? Foreign economic penetration and government respect for human rights in developing countries', *International Studies Quarterly*, Vol. 45, No. 2, pp.219–239.

Rocha, R.S. and Granerud, L. (2011) 'The search for legitimacy and organizational change: the agency of subordinated actors', *Scandinavian Journal of Management*, Vol. 27, No. 3, pp.261–272.

Ross, R.J. (2004) *Slaves to Fashion*, University of Michigan Press, Ann Arbor.

Schneider, B.R. (2013) *Hierarchical Capitalism in Latin America: Business, Labor, and the Challenge of Equitable Development*, Cambridge University Press, New York.

Sharfman, M.P., Shaft, T.M. and Tihanyi, L. (2004) 'A model of the global and institutional antecedents of high-level corporate environmental performance', *Business & Society*, Vol. 43, No. 1, pp.6–36.

Surroca, J., Tribó, J.A. and Zahra, S.A. (2013) 'Stakeholder pressure on MNEs and the transfer of socially irresponsible practices to subsidiaries', *Academy of Management Journal*, Vol. 56, No. 2, pp.549–572.

Timmermans, S. and Tavory, I. (2012) 'Theory construction in qualitative research: from grounded theory to abductive analysis', *Sociological Theory*, Vol. 30, No. 3, pp.167–186.

Whitley, R. (1996) 'Business systems and global commodity chains: competing or complementary forms of economic organization?', *Competition and Change*, Vol. 1, No. 4, pp.411–425.

Whitley, R. (1998) 'Internationalization and varieties of capitalism: the limited effects of cross-national coordination of economic activities on the nature of business systems', *Review of International Political Economy*, Vol. 5, No. 3, pp.445–481.

Whitley, R. (1999) *Divergent Capitalisms*, Oxford University Press, Oxford.

Zeitlin, J. and Totterdill, P. (1989) 'Markets, technology and local intervention: the case of clothing', in Hirst, P. and Zeitlin, J. (Eds.): *Reversing Industrial Decline*, pp.155–190, St Martin's Press, New York.

Notes

1   This information is publicly available and can be found at www.tse.jus.br.