1. Introduction

The ground rules of profit make it hard to be a friend to the environment.
(David Suzuki, 1993: 137)

The formulation of strategy is generally treated as a rational process of matching corporate capabilities to market demands. But this does not always account well for the heterogeneity observed in corporate strategies towards complex environmental issues.

(Levy and Rothenberg, 2002: 173)

Why should firms address environmental problems? It’s a simple enough question. When it comes to problems that threaten the future of the planet, such as climate change, it is also crucial for the future of humanity. The simple answer is that they must take a leading role in addressing such problems. This is because it is not society that is responsible for environmental degradation. Neither are governments. Both may be important for finding solutions, but ultimately the actors responsible for environmental damage are firms, because environmental damage occurs in the production process and the act of consuming the outputs of it. This is clearly a contentious position. One thing it is not is idealistic. If business does not address the central role it plays in causing or ameliorating the environmental impacts of its activities, we are potentially doomed.

Yet, the liberal economic model is based on the premise that the business of business is business, not just in fact but as a virtue – i.e. it is right that this be the case. If this is true, then the likelihood of business taking a leading role is slim. More accurately, it is seen as unlikely in the absence of changes in the material incentives offered by market forces or effective state regulation. Even so, corporations are increasingly keen to represent themselves as ‘green’. In the case of the car industry there is evidence that concern for the environment may be more than just rhetoric. Car firms have made significant commitments to incorporate environmental concerns in business strategies (OECD, 2004; ACEA, 2002; Deutsche Bank, 2004; Austin et al., 2003). The car industry is dominated by multinational corporations (MNCs), and the world’s largest manufacturing sector. It also produces a product that has major environmental impacts. Therefore, any behavioral change occurring within it is central to the debate on addressing the environmental impact of business.
This book asks the question: what motivates car firms to actually make environmental commitments? The reason for asking this is that if one understands the key motivators of firms, one has the basis for answering questions of whether or not the commitments they make are likely to be real or simply ‘window dressing’. The issues raised by the question are complex. Multiple interrelationships are involved between states, business, markets and society. Theoretically, there are also multiple perspectives for considering the puzzle. Disciplinary boundaries will inevitably be crossed and readers with an interest in regulatory governance, international business and management, global environmental politics and the role of civil society, among others, should all be interested in the findings.

The book takes as its starting point the dichotomy between material factors and rationalist ways of viewing the world, versus normative perspectives that emphasize the role of institutions. The case is made for why the latter approach has more explanatory power. A belief that states remain central, rather than the view that global markets are now in charge, informs the analysis because firms remain embedded in their home states. They are therefore subject to normative factors that constitute capitalist relations of production that have become institutionalized over time there. Recognizing this, the analysis employs the Varieties of Capitalism (VOC) approach. If environmental damage occurs in the production process and the act of consuming the outputs of it, then capitalist relations of production should be at the heart of answering questions about firms’ motivations. The findings demonstrate that car firms’ motivations for taking the environmental impacts of their actions into account, and how they do so, are fundamentally a matter of differences in such capitalist relations. Specifically, in this book, they are about the different capitalisms of Germany (and to some degree the European Union), the United States and Japan.

This introductory chapter first briefly highlights the global economic and environmental importance of the car industry, and places this in the context of the growing awareness of environmental issues from the 1990s onwards. It then introduces how addressing the environmental damage resulting from the car industry’s activities may be considered in the light of contrasting theoretical perspectives on addressing environmental externalities resulting from the actions of economic actors. The mainstream rationalist liberal economic perspective, which focuses on material factors, is contrasted with institutional perspectives, which focus on normative factors. The idea that the influence of firms’ home states remains important, for both material and institutional reasons, is then introduced along with the VOC approach. Finally, the contribution of the book and the substantive questions it seeks to answer in light of the actions of the car industry and contrasting theoretical perspectives are presented.
chapter concludes with the hypothesis to be explored. This is that both material and institutional perspectives are relevant to understanding and explaining the car industry’s environmental initiatives, but national institutional variations in capitalist relations of production, as suggested by the VOC approach, are crucial for understanding what might motivate such initiatives in firms of different nationalities.

THE GLOBAL ECONOMIC AND ENVIRONMENTAL IMPORTANCE OF THE CAR INDUSTRY

The car industry has been described as ‘the economic sector most emblematic of modern times and of the polluting consequences of modernity’ (Orsatto and Clegg, 1999: 264; see also Womack et al., 1990). Its economic and environmental significance mark it as a crucial case for study because, more than any other manufacturing sector, it possesses the material capabilities to either reduce or increase global environmental damage. The following outlines some key aspects of the industry’s global economic significance. In light of this significance, the manner in which the industry’s products are a major cause of global environmental damage is then outlined. This provides some background for the subsequent discussion of alternative approaches to addressing the industry’s environmental impacts.

Economic Significance

MNCs are perhaps the most important economic actors shaping the contemporary global economy. The car industry is the archetypal example of an industry sector dominated by MNCs. It manufactures and distributes its products on an integrated global scale and today is often taken as ‘a paradigm case of a globalised industry’ (Paterson, 2000: 264). Most of the largest car manufacturers have over 40 per cent of their production outside their ‘home’ state (Paterson, 2007: 98), and in addition to the finished product being produced and traded internationally, the international dimension of the product is embedded in its production. This is because various parts and components are produced in different countries, so that the final product itself is global in character (Braithwaite and Drahos, 2000: 440–441; see also Dicken, 2003: 355–369). Furthermore, collaborative agreements between firms of different nationalities, and often cross-ownership, mean that a ‘global connectedness’ exists in research and development, the dissemination of new production techniques and other technological advances.³

The car industry dominates global manufacturing. Vehicle production
is the largest manufacturing sector in the world. Five of the world’s top ten businesses by sales are car manufacturers, with another three in the top 45 (The Economist, 2002a: 62). The industry contributes 4 to 8 per cent of total GDP for Organisation for Economic Co-operation and Development (OECD) countries, and leads all other industries, including information technology, in research and development (UNEP and ACEA, 2002: 12). In fact, on the basis of the value of the industry’s output, the Organisation Internationale des Constructeurs d’Automobiles (OICA, 2006) declares that if vehicle manufacturing was a country it would be the sixth largest in the world.

Yet, while being globally significant, the industry is also nationally concentrated. Table 1.1 presents turnover, investment and production figures, including for the top three countries in the world where this is undertaken: Germany, the US and Japan. It shows that the industry’s total turnover in 2004 was almost €1.9 trillion, its investment totaled nearly €85 billion, and it produced over 66 million vehicles worldwide in 2005 (of which 46 million, or 69 per cent of the total, were cars). By location of economic activity, the industry’s three major hubs account for 58 per cent of its turnover and investment, and over 40 per cent of its production. Therefore, it is clear that in addition to the industry’s global economic significance, it is of particular significance to the world’s three largest industrialized states where 40–60 per cent of its global economic activity is located. These figures are magnified if the whole of the European Union (EU) is included, in which case, four-fifths of world car output is produced in the US, EU and Japan (Dicken, 1998: 319).

Environmental Damage

Given the economic importance of the car industry, and significance in the world’s three largest industrialized states, there is also ample evidence of the environmental damage caused by cars. The following is a brief summary.

Transportation accounts for around 23–25 per cent of total carbon dioxide (CO₂) emissions, with up to 85 per cent of this accounted for by road transport (UNEP, 2003; Paterson, 2000). This is exclusive of related activities linked with transportation such as fuel extraction, processing and transport, and the manufacturing process. If these are included, passenger cars alone are responsible for up to 33 per cent of the OECD’s CO₂ emissions. Just a 10–15 per cent reduction in passenger cars’ contribution to CO₂ emissions would meet half of Germany or Japan’s emission reduction commitments under the Kyoto Protocol to address climate change (UNFCCC, no date a, no date b, no date c).
Table 1.1  Turnover, investment and production volumes

<table>
<thead>
<tr>
<th></th>
<th>Turnover (€million)</th>
<th>Percentage of total</th>
<th>Investment (€million)</th>
<th>Percentage of total</th>
<th>Production – cars and commercial vehicles (units)</th>
<th>Percentage of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td>227,666</td>
<td>12</td>
<td>11,900</td>
<td>14</td>
<td>5,757,710</td>
<td>9</td>
</tr>
<tr>
<td>US</td>
<td>425,106</td>
<td>23</td>
<td>30,416</td>
<td>36</td>
<td>11,980,912</td>
<td>18</td>
</tr>
<tr>
<td>Japan</td>
<td>435,610</td>
<td>23</td>
<td>6,450</td>
<td>8</td>
<td>10,799,659</td>
<td>16</td>
</tr>
<tr>
<td>Germany, US and Japan total</td>
<td>1,088,382</td>
<td>58</td>
<td>48,766</td>
<td>58</td>
<td>28,538,281</td>
<td>43</td>
</tr>
<tr>
<td>World total</td>
<td>1,889,840</td>
<td>100</td>
<td>84,801</td>
<td>100</td>
<td>66,465,768</td>
<td>100</td>
</tr>
</tbody>
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In terms of exhaust emissions other than CO$_2$, cars contribute 90 per cent of all carbon monoxide emissions, and are a major cause of acid rain through the sulphur oxides they emit. Road transport also accounts for 48 per cent of nitrogen oxide (NO$_x$) emissions in OECD countries on average, and around 60 per cent of this is accounted for by cars (Paterson, 2000: 258–259). In addition, cars are a prime cause of the depletion of the world’s resources – for example, car use accounts for 63 per cent of US oil consumption (Freund and Martin, 1993). Of all land-based modes of transport, cars are the most energy intensive, with petrol-powered cars consuming, in aggregate, more energy and producing more greenhouse gas emissions than any other type of vehicle (IEA, 1993: 14). The industry also produces over 3 million tonnes of scrap and waste every year (Hawken et al., 1999: 23).

Based on current growth rates, the number of vehicles worldwide is projected to increase from around 700 million at present to 1.1 billion by 2020, so the environmental impacts of the industry will increase substantially unless dramatic changes are made (Burns et al., 2002). It is not surprising that the US Environmental Protection Agency declares that driving a car is ‘the single most polluting thing that most of us do’ (Maxton and Wormald, 2004: 31).

Given their economically powerful position, car firms have historically put strong political pressure on governments against environmental regulation. They have supported national lobby groups such as the Coalition for Vehicle Choice in the US, and international lobby groups such as the Global Climate Coalition (GCC) and the Climate Council. These consistently lobbied governments against emission controls to reduce greenhouse gases, on the basis that the result would be severe economic impacts (Beder 2002; see also Porter and van der Linde, 1995a; Newell and Paterson, 1998; Bradsher, 2002; Levy and Rothenberg, 2002). US firms resigned their membership of lobby groups like the GCC prior to its ultimate demise in 2002 in favor of openly embracing (or at least declaring) support for environmental commitments. In fact, all car firms now announce their support for, and membership of, environmentally-motivated industry organizations such as the World Business Council for Sustainable Development (WBCSD: 2004). Even so, there remains vast scope for efficiency improvements by the industry. For example, the US industry has made most of its profits since the mid-1990s from the sale of light trucks, primarily in the form of large, heavy, gas-guzzling pick-up trucks and sports utility vehicles (SUVs). These vehicles now account for over half the total US passenger ‘car’ market. Far from seeking to differentiate themselves from the production and sale of these vehicles, European and Japanese manufacturers are producing similar vehicles to compete for US market share (Bradsher, 2002).
Overall, the industry’s size and global economic significance is mirrored in the environmental damage caused by its products. Without action, its environmental impacts will inevitably worsen based on current market trends. However, as environmental concern has risen in prominence since the early 1990s, there is cause to think action may be forthcoming. This is the subject of the following section.

THE ENVIRONMENT GOES MAINSTREAM

These days, it is easy to take it for granted that the environment matters. Environmental concern spans the political spectrum from left to right, as well as from governments to firms and society. It is not so much a question of whether the environment should be a concern, but how environmental impacts should be addressed. This was not always the case. The Club of Rome’s (1972) *The Limits to Growth* helped to set the agenda in the early 1970s, as did Carson’s ([1962] 1999) *Silent Spring* that preceded it. To be an environmentalist back then was to be on the political fringes, but the 1990s marked the beginning of the period over which the environment went mainstream.

This book primarily considers the period of time from 1990 to 2004. There are five observations to make about why this period of time is pertinent. The first four relate to the rise in environmental awareness generally, or the way in which it went mainstream. The fifth relates to the material conditions faced by the car industry specifically, in the sense that these may be held relatively constant over this period of time as environmental awareness became a feature of the political landscape.

First, international organizations significantly raised the profile of environmental concerns over this period. For example, the United Nations Environment Programme (UNEP) views the 1992 Rio Earth Summit as a watershed in the discussion of environmental sustainability from which sustainable development initiatives have sprung (UN, no date a), such as the Kyoto Protocol signed in 1997 and subsequently ratified by nearly all its signatories (UNFCCC, no date a, no date b, no date c). Even economically-focused international organizations such as the World Trade Organization (WTO) recognized that, going into the 1990s, ‘environment, gender and labor concerns are on the agenda in ways that would have been deemed illegitimate in the 1970s’ (O’Brien et al., 2000: 231). They realized that ignoring the views of increasingly noisy and angry protesters and social movements undermined their agendas. The WTO’s answer was to establish its Committee on Trade and Environment in 1995 at its inception. Throughout the 1990s, a series of international agreements with
business also emerged such as the United Nations’ (UN) Global Compact, announced in 1999. This brings companies together with UN agencies, labor and civil society to support nine principles in the areas of human rights, labor and the environment. Another such agreement is the Global Reporting Initiative, started in 1997 by the Coalition of Environmentally Responsible Economies (CERES), and now an official collaborating centre of the UNEP that works in cooperation with the Global Compact (GRI, 2002; see also UN, no date b).

Second, authors like Florini (2003a and b) identify the concept of corporate social responsibility (CSR) as having come to the fore as an ideological shift with its genesis in the 1990s. As a concept, CSR includes environmental sustainability among a range of other responsibilities, such as those in respect of labor standards, human rights, disclosure of information, corporate governance, public safety, privacy protection and consumer protection. There is a growing body of research that shows environmental sustainability and other socially responsible behavior on the part of MNCs, such as those in the car industry, to be voluntary initiatives. Such initiatives are further identified as being global (see also OECD, 2001a, 2001b; Holliday et al., 2002). For example, the WBCSD was established at the same time as the 1992 Rio Earth Summit and has been working ever since to be at the forefront of the business response to sustainable development. A coalition of 165 companies drawn from 30 countries and 20 industry sectors, it also links a network of 43 national and regional business councils and partner organizations in 39 countries. It includes all the major car firms in its membership, and has been regarded as a manifestation of a broader acceptance by corporations of the importance of environmental issues as a key component of CSR (WBCSD, 2000). At the same time, as already mentioned, industry associations like the GCC, established to resist attempts to address climate change, went into demise because membership of them tarnished firms’ reputations to such a degree as to be unacceptable to them (Beder, 2002: 238–239).

Third, even outspoken critics of international capitalism vis-à-vis the environment suggest that we are actually witnessing a fundamental change in how firms do business worldwide as they incorporate environmental sustainability concerns in their operations. For example, before the mid-1990s, Hawken et al. (1999: 24) find there is not much evidence of the car industry proactively addressing environmental concerns, with any gains the result of social activism or government regulations. Similarly, in Suzuki (1993: 137 and 139), a strident critic of capitalism, globalization and the environmental degradation it causes worldwide, declared that ‘the ground rules of profit make it hard to be a friend to the environment’. Indeed, he said that ‘amid . . . the suicidal demand for steady growth,
happy stories are few’, singling out the international car industry for the enormous social and ecological costs it imposes on societies above all other industries. But by 2002 he notes a philosophical shift within corporate hierarchies, the results of which include General Motors supporting a 50 per cent tax on petrol for environmental reasons (Suzuki and Dressel, 2002: 289–290). To illustrate the point, he cites the speech by Ford’s Chairman to a Greenpeace business conference on 5 October 2000:

We’re at a crucial point in the world’s history. Our oceans and forests are suffering; species are disappearing; the climate is changing . . . Enlightened corporations are beginning to . . . realize that they can no longer separate themselves from what is going on around them. That, ultimately, they can only be as successful as the communities and the world that they exist in. . . . I personally believe that sustainability is the most important issue facing the automotive industry in general in the 21st century. (Suzuki and Dressel, 2002: 290–291)

Within the space of a decade, Suzuki’s attitude changed from pessimism to a decidedly more optimistic view of business environmental responsibility, with the car industry at the forefront of moves by big business towards environmental sustainability.13

Fourth, environmental reporting by firms in many cases preceded reporting on CSR more generally. Starting in the late 1980s to early 1990s, an increasing number large corporations, mostly MNCs, began producing such reports.14 US car firms were among the first to do so,15 followed by German and Japanese firms. Such reports represent a desire by firms to represent themselves as environmentally concerned (whether in image or fact), suggesting the rise in prominence of environmental considerations as of strategic importance in this timeframe.16

Finally, and specifically for the car industry, between 1990 and 2004 environmental concerns and their impact may be considered in the context of relatively constant material factors. This is because the oil price was reasonably stable. For most of the 1990s the spot price for crude oil was US$15–20 per barrel. From 2000 to 2003 it increased slightly to US$20–25 per barrel. However, thereafter there was a price shock that saw the price nearly double to US$50 per barrel by 2005. In 2008 it passed US$100 per barrel on its way to around US$140 per barrel, before plummeting to less than half this price by the end of the year (EIA, 2008). As such, a ceteris paribus analysis based largely on fuel economy and the cost of running a car in terms of fuel purchased is only meaningful up until 2004, after which market uncertainties generated by the material imperatives of volatile oil prices unavoidably come to the fore. So, to some extent this book may be conceived of as a historical snapshot, and this is entirely appropriate because the question asked is not whether firms respond to market forces
Greening the car industry

(clearly they do), but whether their desire to represent themselves as green counts for anything beyond these, as opposed to just being ‘window dressing’.

This last point raises the institutional approach to be taken in the book, rather than the more mainstream rationalist, liberal economic approach that is usually applied. The two approaches are contrasted in the following sections.

ADDRESSING ENVIRONMENTAL EXTERNALITIES: MATERIAL ‘CALCULUS’ VERSUS INSTITUTIONAL ‘CULTURE’

Environmental problems are usually characterized as cases of market failure due to externalities. Simply put, externalities occur when factors that should be taken into account by markets are left external to them. The primary reason for this is that property rights in respect of the environment are often ill-defined – i.e. it is not clear who owns the environment, and so it is often the case that economic actors responsible for environmental damage are not made responsible for the environmental impacts of their actions. Due to ill-defined property rights, the environment is often a public good – i.e. it is in the public domain and can be jointly consumed by several agents simultaneously. The result of environmental externalities arising from a lack of property rights because of the environment’s public good nature is market failure, in the sense that the prices of goods and services do not reflect the environmental impacts of their production and consumption. More specifically, costs to the environment arising from economic activity are not borne by those engaged in the economic activity and are therefore not reflected in prices.17

Far from market failure being unusual, ‘environmental externalities are pervasive’ (Ekins et al., 1994: 7). Because the environmental costs of economic activity are incorrectly priced by markets, and economic actors can ignore the negative environmental effects of their actions, the costs of environmental externalities are often borne by others who were not responsible for them. Specifically, they are often borne collectively by society. When the public good attribute of the environment is a global or transborder phenomenon, as is the case with climate change, the environment is said to be in the realm of the ‘global commons’: the costs are borne by us all.

What then might motivate firms to address their environmental impacts? Ameliorating the problem of pervasive, often global, environmental externalities may be approached in two ways. Mainstream liberal economic perspectives are challenged by institutional perspectives. Both are considered
below, along with the major divide between them: rational choice versus norms as the basis for action.

**The Liberal Economic Perspective**

The liberal economic perspective is the mainstream view that informs analysis in the business/government/environment debate. So profound is the acceptance of this perspective in debates about environmental sustainability that it may be called ‘hegemonic’ (Harrison, 2000: 20). Liberal is a somewhat ‘rubber’ term to the extent that it has been given different definitions by different commentators, but it is used here to refer to approaches in economics, political science and international relations that apply the ideas of individual autonomy, freedom and rationality to firms, the state, interstate relations and international economic relations generally (see, for example, Wallerstein, 1995; Burchill, 1996). Broadly speaking, it refers to those theories in which ‘people behave in self-interested and broadly rational ways’, with rationality defined on the basis of a priori utilitarian assumptions (Goldstein and Keohane, 1993: 5). In the case of firms, they are constructed as rational profit maximizers, making rational choices employing ‘instrumental logics of calculation (calculus logics)’ to achieve their material ends (Hay, 2006a: 4; see also March and Olsen 1989 and 1998; Hay, 2006b). Fundamentally, this mainstream view therefore employs a materialist perspective through which firms act instrumentally to make profits in markets, or to increase their material power in terms of market outcomes. In a nutshell, rationality is defined in terms of choices that maximize material profit and power outcomes.

The implications are clear. Without state intervention, environmental externalities will never be internalized as firms responsible for them canrationally ignore the cost of them. State intervention is required to increase the price of environmental resources so that ‘trade can take place on the basis of prices reflecting true social costs’ (Ropke, 1994: 17). Without such intervention, market forces will not internalize the value of environmental externalities in market transactions.

Such a perspective has proved to be a parsimonious way of explaining firms’ behavior. However, there are four inherent epistemological foundations underpinning it that are problematic. First, rational choice models are ahistorical. Rationality is assumed to apply at all times, and therefore questions such as path dependency, and timing and sequencing of events are not considered important determinants of outcomes. Second, rational choice models aim for generalizability. ‘Rules of the game’ are examined and equilibrium solutions posited that result from these. It follows that in addition to such solutions applying at all times (i.e. ahistorically), they apply in all
cases. Third, rational choice models exogenize the interests, identities and preferences of actors. The limited understanding of actors’ motivations that results means that their behavior is constrained to certain utility (in terms of profit or power) maximizing assumptions. Fourth, rational choice models focus on methods with the research agenda set by the model. By incorporating ahistoricity, generalizability and exogeneity of actors’ interests, identities and preferences, parsimony is certainly more likely and one can also say that any resulting model will be widely applicable in theory (or more accurately by definition). However, the end result is that most of what remains to argue about is methods (see, for example, Green and Shapiro, 1994; Pierson and Skocpol, 2000; Boniface and Sharman, 2001).

The first three mean that approaches employing rational choice mechanisms are static. This limits their ability to explain behavioral change. The fourth limits the questions that can be asked to address this drawback of the first three assumptions. However, perhaps most importantly, by making a priori assumptions about the motivations of economic actors they postulate a universal source of behavioral change. If firms are taking environmental concerns into account, it must be because it is in their interest to do so, with this interest defined in materialist, instrumental profit-seeking terms. Although such a clear causal path is intuitively appealing, the danger in simply constructing firms as instrumental profit-maximizers is that the range of possible explanations for them taking more environmentally-friendly courses of action is constrained. It must, by definition, be because it is profitable for them to do so. It must be that consumers’ revealed preferences indicate that firms should take such a course of action, or regulations leave them no choice. The risk is what Katzenstein colorfully terms ‘vulgar rationalism’ as we ‘infer the motives of actors from behaviorally revealed preferences’. Such over-simplification means the result may be tautological explanations that ‘succeed in explaining everything and so explain nothing’ (Katzenstein, 1996: 27).

While not necessarily rejecting the usefulness of simplifying abstractions per se, what is worrying about the liberal economic approach is that its use of a rational choice model based on a priori assumptions represents ‘a curiously depoliticized form of the study of politics’ (Crouch, 2005a: 447; see also Schmidt, 2002). Alternative institutional perspectives do not constrain explanations to the same extent. Their epistemological foundations are considered in the following section.

**Institutional Perspectives**

Institutional perspectives have been promoted by scholars such as North (1990), March and Olsen (1989 and 1998), Ruggie (1998a), and even
Goldstein and Keohane (1993). The materialist, rational choice based approach has been modified (see, for example, Denzau and North, 1994) or attacked in the process (Blyth, 1997, 2003; Hay, 2002, 2004; Green and Shapiro, 1994). Institutional approaches do not assume actors are rational or, more accurately, they do not define actors’ rationality in terms of a priori assumptions ascribing motivations. Instead, their starting point is that actors are motivated by norms that prescribe and proscribe appropriate action. That is to say, rationality is contingent on norms of behavior. When such norms become institutionalized, they have a ‘taken-for-grantedness’ about them such that behaving in a manner commensurate with them may be taken for rational behavior, but not in any a priori assumed sense.

The body of literature on institutional perspectives has now grown to the point where there are a variety of approaches embracing institutionalism, from those that emphasize the contextual or historically constructed nature of rationality (for example, rational choice institutionalism and historical institutionalism), to those that virtually discard rationality altogether to focus on cultural and identity aspects of actors (for example, normative/sociological institutionalism and constructivist institutionalism) (Hay, 2006b; Lowndes, 2002). Rational choice institutionalists such as North (1990: 3 and 14) define norms as ‘shared common beliefs’ that give rise to institutions as ‘the rules of the game in a society or, more formally . . . the humanly devised constraints that shape interaction’. Constructivist institutionalists ‘focus on the role of ideas, norms, knowledge, culture and argument in politics, stressing in particular the role of collectively held or “intersubjective” ideas and understandings of social life’ and assert that: (a) human interaction is shaped primarily by ideational factors, not simply material ones; (b) the most important ideational factors are widely shared or “intersubjective” beliefs, which are not reducible to individuals; and (c) these shared beliefs construct the interests and identities of purposive actors’ (Finnemore and Sikkink, 2001: 393; see also Adler, 1997; Price and Reus-Smit, 1998; Ruggie, 1998b; Wendt, 1999). Somewhere in between, a broad working definition of the institutions to which norms give rise is provided by Hall and Soskice (2001a: 9) who say institutions are ‘a set of rules, formal or informal, that actors generally follow, whether for normative, cognitive, or material reasons’.

Institutional perspectives thus challenge the rational choice mechanism in the liberal economic model by seeing the role of ideas, beliefs and the resulting norms of behavior as providing richer explanations of how decisions are made and institutions constructed. In short, they apply ‘norm-driven logics of appropriateness (cultural logics)’ (Hay, 2006b: 4). Liberal economic versus institutional perspectives are therefore delineated
by the manner in which the rational choice mechanism is applied in the former versus the role of norms of behavior in the latter. Followers of the mainstream liberal economic perspective understand the world in terms of material interests, based on a logic of consequentialism (the outcomes of taking certain courses of action), whereas institutionalists accentuate the role of ideas and social behavior (i.e. norms) based on a logic of appropriateness (that there is an appropriate way to act not necessarily contingent on the outcome of such behavior) (March and Olsen, 1989, 1998).22

Taking an institutional approach means that seeking solutions to the problem of environmental externalities becomes more complex. For example, Paterson rejects the idea that states in a liberal international economic order can ever make the required interventions to effectively address environmental problems because ‘existing political, social and economic structures are part of the problem’ (Paterson, 2000: 254). Elsewhere he notes that the focus for analysis should be on the structural power of capital and how it relates to the state (Newell and Paterson, 1998: 680). Viewed this way, the liberal economic view is more an ideology, or the result of institutional embedding that says markets and governments must (or should) operate in certain ways.23 Alternative and often more successful approaches for internalizing environmental externalities may be suggested. Indeed, they may be essential if one accepts the view that ‘preventing situations such as global warming requires more than just market mechanisms that simply assign economic value to intangibles’ (Karliner, 1997: 47). That is to say, behavioral change is not just a matter of changing material returns, it is about recognizing the normative basis of prevailing institutions.

A key implication is that rather than economic actors making rational decisions in the sense of operating purely on the basis of assumed instrumental profit maximizing goals, one must admit the possibility raised by Ostrom that individuals are ‘fallible, boundedly rational, and norm-using. In complex settings, no one is able to do a complete analysis before actions are taken, but individuals learn from mistakes and are able to craft tools – including rules – to improve the structure of the repetitive situations they face’ (Ostrom, 1999: 496). This does not mean that irrationality is the alternative, but that rationality is not defined by the a priori assumptions employed in the mainstream liberal economic model. Similarly, it does not mean that material interests are irrelevant, but simply that they may not be the issue. What is at issue is how these are perceived. Economic actors such as firms have material interests, but it is the normative aspects of how these interests are perceived that matter if we are to study motivations in respect of realizing them (see, for example, Hay, 2006a and b).

Perhaps the clearest outline of the normative aspects of how material
interests are perceived is provided by Finnemore and Sikkink (1998). They conceptualize a norm lifecycle, shown in Figure 1.1. In stage one norm entrepreneurs, such as NGOs and often radical activists, advocate for a new approach to be taken that embraces a new norm. By raising the profile of the new norm, a tipping point is reached after which the norm is taken up in stage two by states, international organizations and other actors who intervene to promote the norm and construct rules flowing from its implementation. This leads to the new norm ‘cascading’ through other states and organizations. Finally, in the third stage norms are so habitualized that they become part of how actors in professions, the bureaucracy and the public at large behave, almost without them knowing that they are there. They become institutionalized (for example, few people today would recognize women having the vote or the abolition of slavery as issues worth discussing for their pros and cons). The norm lifecycle model therefore implies that institutionalized norms shape behavior and change over time, and in so doing form the basis of what is seen as rational.

What about the car industry? Institutional perspectives, including the above model, suggest that if firms are to change their behavior in respect of the environment, this will be a product of institutions that constrain certain types of behavior and enable others. This ultimately also produces institutional change. Livio de Simone, former chairman of the WBCSD, appears to suggest this has already happened in declaring that ‘a paradigm shift has clearly taken place. Business used to be depicted as a primary source of the world’s environmental problems. Today it is increasingly viewed as a vital


Figure 1.1  The norm lifecycle
contributor to solving those problems and securing a sustainable future for the planet’ (Karliner, 1997: 31). However, whether or not a ‘paradigm shift’ has taken place necessitates an analysis that examines what political, economic and structural forces, and the institutionalized norms that inform their interpretation, are at work. In other words, it is necessary to tell an ‘insider’s story’ to make sense of what events and actions mean (Wendt, 1998). A key part of so doing is recognizing the importance of firms’ home states, for both material and institutional reasons.

THE MATERIAL AND INSTITUTIONAL IMPORTANCE OF FIRMS’ HOME STATES

The picture painted earlier of the car industry as a global industry dominated by large MNCs was qualified by noting its national concentration, particularly in the three hubs of Germany (and the EU), the US and Japan. Therefore, there is a tension between conceiving the industry as truly global, versus the reality that it is comprised of companies with national bases that have international interests. This global/national tension reflects larger debates about the extent to which a shift in power has occurred from states to markets and the forces of transnational capital, versus the enduring relevance of states in international capitalist relations. The former global perspective is held by authors such as Strange (1996), Ohmae (1990), Friedman (1999) and adherents of the neoliberal view that markets are increasingly in command as a result of globalization, with states having diminished power to influence market outcomes. The latter perspective is one that sits more comfortably with scholars of international relations who see commerce as based in national territories, with interaction between states and their major corporations occurring internationally. They include Pauly and Reich (1997), Doremus et al. (1999), Weiss (1998), Weiss and Hobson (1995), Vogel (2001), Boyer (1996), Wade (1996) and those who subscribe to the VOC approach such as those in Hall and Soskice (2001b).

In this section, the case is made for why, on the basis of both material and institutional factors, car firms’ home states remain important. Therefore, whatever the theoretical perspective adopted, car firms’ behavior is more a product of their national home bases than global markets. An international perspective in respect of the car industry, and thus an approach based on a comparative national analysis, is more appropriate. Furthermore, evidence will be presented that the industry’s activities are concentrated in a handful of firms from each of these three territories that dominate their markets. From an institutional perspective, the relevance of the VOC approach for analysing the industry is then introduced.
Introduction

The Material Importance of Firms’ Home States

Although the car industry is characterized by global networks for production and distribution, the point was made earlier that its turnover, investment and production is actually concentrated in the three hubs of Germany/the EU, the US and Japan. Therefore, national/regional contexts for the industry and its firms remain important. This is the case for the geographical focus of firms’ activities, their ownership, and the location of their key markets.

For geographical focus, Table 1.2 presents the transnationality index (TNI) for the major German, US and Japanese firms.25 What is immediately apparent is that there is considerable variation in firms’ TNIs. Japanese firms are the most transnational, but German and US firms’ TNIs are around 50 per cent or less on average. The US firms, DaimlerChrysler and Toyota have TNIs of less than 50 per cent. In addition, the ratio of foreign to total sales is greater than the TNIs of the Japanese and German firms, whereas the converse is true for US firms. This suggests that not only are US firms less transnational than their German and Japanese counterparts, they are also the most focused on their home market. For the others, their transnationality is driven more by where they have their markets, rather than their operations.

Of course, there are other factors not considered here, such as the extent

Table 1.2  Transnationality measures for German, US and Japanese firms

<table>
<thead>
<tr>
<th></th>
<th>TNI (%)</th>
<th>Foreign sales as a proportion of total sales (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volkswagen</td>
<td>56</td>
<td>72</td>
</tr>
<tr>
<td>DaimlerChrysler</td>
<td>29</td>
<td>39</td>
</tr>
<tr>
<td>BMW</td>
<td>67</td>
<td>73</td>
</tr>
<tr>
<td><strong>German average</strong></td>
<td><strong>51</strong></td>
<td><strong>62</strong></td>
</tr>
<tr>
<td>General Motors</td>
<td>34</td>
<td>31</td>
</tr>
<tr>
<td>Ford</td>
<td>49</td>
<td>42</td>
</tr>
<tr>
<td><strong>US average</strong></td>
<td><strong>41</strong></td>
<td><strong>36</strong></td>
</tr>
<tr>
<td>Toyota</td>
<td>49</td>
<td>60</td>
</tr>
<tr>
<td>Honda</td>
<td>69</td>
<td>77</td>
</tr>
<tr>
<td>Nissan</td>
<td>61</td>
<td>70</td>
</tr>
<tr>
<td><strong>Japan average</strong></td>
<td><strong>61</strong></td>
<td><strong>69</strong></td>
</tr>
</tbody>
</table>

Greening the car industry

to which firms are bi-national rather than transnational, or regional rather
than global (Rugman, 2005; see also Dicken, 2003). It suffices to say that
even a cursory glance at the data demonstrates there is considerable vari-
ation in the extent to which these firms are global, and that the US firms,
DaimlerChrysler and Toyota are not very global at all. The implication
is that although firms should be concerned with international regulations
and global market trends, those corresponding to their home state remain
highly significant.

Firms’ transnationality, or rather their surprising lack of it, supports
earlier data presented in Table 1.1 which demonstrated that turnover,
investment and production are concentrated in Germany, the US and
Japan where almost half or more of the industry’s activity still takes place.
In each of these territories, the industry has a magnified significance due
to its concentration in them – e.g. five of the seven largest US industrial
firms produce either cars or their fuel (Hawken et al., 1999: 23). Table 1.3
presents passenger car production by manufacturer for the eight largest
manufacturers in these territories. It demonstrates that 59 per cent of
total world production is concentrated in the hands of just these eight
firms. This is a symptom of the increasing concentration of the industry
generally, from 52 independent firms in 1964 to only 12 in 2004 as a result
of takeovers and mergers between firms (Deutsche Bank, 2004: 13).
Therefore, these eight firms also represent two-thirds of the independ-
ent firms currently operating worldwide, so that the industry is not just

Table 1.3  2006 passenger car production by the largest German, US and
Japanese manufacturers

<table>
<thead>
<tr>
<th>Nationality (by ownership)</th>
<th>Car production (units)</th>
<th>Percentage of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toyota</td>
<td>Japan</td>
<td>6,800,228</td>
</tr>
<tr>
<td>Volkswagen</td>
<td>Germany</td>
<td>5,429,896</td>
</tr>
<tr>
<td>General Motors</td>
<td>US</td>
<td>5,708,038</td>
</tr>
<tr>
<td>Ford</td>
<td>US</td>
<td>3,800,633</td>
</tr>
<tr>
<td>Honda</td>
<td>Japan</td>
<td>3,549,787</td>
</tr>
<tr>
<td>Nissan</td>
<td>Japan</td>
<td>2,512,519</td>
</tr>
<tr>
<td>BMW</td>
<td>Germany</td>
<td>1,366,838</td>
</tr>
<tr>
<td>DaimlerChrysler</td>
<td>Germany</td>
<td>1,275,152</td>
</tr>
<tr>
<td>Total for firms shown here</td>
<td></td>
<td>30,443,091</td>
</tr>
<tr>
<td>World total</td>
<td></td>
<td>51,953,234</td>
</tr>
</tbody>
</table>

concentrated on a state (and regional) basis, but also by the number of firms from each of these states.\textsuperscript{29} 

Turning to ownership, while cross-ownership may characterize the industry globally, some firms own others, or have a controlling stake in them, rather than being owned themselves. Smaller firms than the eight listed here are all in the latter category, making any determination of their nationality problematic. Of the top eight German, US and Japanese firms, General Motors and Ford are wholly US-owned; Toyota and Honda are wholly Japanese-owned; and Volkswagen and BMW are wholly German-owned, with Volkswagen also being the largest European firm (Deutsche Bank, 2004). Cross-ownership is a factor for DaimlerChrysler and Nissan. Even so, and this may be a controversial point, I would argue that they may be regarded as a German and Japanese firm respectively.

DaimlerChrysler was formed through the merger of Daimler-Benz (a German firm) and Chrysler (a US firm) in 1998 in what was supposed to be partnership of equals, but was really a takeover of Chrysler by its German partner. Although this meant it was culturally somewhat of a ‘two-headed beast’, with operations and a history that was half German and half US, the nature of the takeover and the subsequent setting of corporate policy and strategic direction in Germany meant it was in fact a German firm. Despite Chrysler’s long history as a US company and its continuing operations there, the firm’s Chrysler operations reported to a ‘German-based parent’ with the whole company being a ‘German-controlled group’ (Maxton and Wormald, 2004: 249–251; see also Deutsche Bank, 2004: 117–121). The arrangement never really worked, with the two halves of the company again going their separate ways in 2007. This demonstrates that German ownership of a US company was problematic, that control was imposed on the US half, and that the national distinctiveness of large MNCs such as those composing the car industry remains a reality.

Nissan has been part-owned by Renault since 1999 when Renault acquired a 37 per cent stake in the company, now increased to 44 per cent. Rather than a merger or takeover, as in the case of DaimlerChrysler, Renault acquired a substantial minority shareholding. The result is better characterized as a strategic alliance, because both brands have retained separate identities, separate operations and undertake separate reporting. Although it is certainly true that, from a Japanese perspective, radically different management practices were imposed on Nissan as a result of the alliance, it remains the case that a Japanese culture prevailed within the company because it was not actually taken over by Renault nor merged with it. Many commentators, such as Tiberghien (2007), would disagree with this. Yet, while there is undoubtedly a sharing of ideas and the fact of Renault’s part ownership is inescapable, the cultural separation of the
firms in practice is even more evident than for Daimle-Benz’s takeover of Chrysler. In short, both firms, in different ways, retained their respective national identities.

Observations on firms’ ownership structures are important because they have implications for how strategic decisions are taken and implemented, in the sense that strategic decisions are more likely to be taken by firms that own others rather than ones that are themselves majority owned and controlled. And when the major firms that own or strategically control others are identified, it is clear that in addition to their economic activity, by the location of their headquarters and board membership the largest firms are all of European (mainly German), US or Japanese nationality. Their headquarters where strategic decisions are made remain in their home states, and the nationalities of their board members reflect their nationalities (Deutsche Bank, 2004).

In addition to the car industry’s concentration in terms of economic activity and ownership, its production hubs of the US, Japan and the EU are also where its key markets are located. Seventy-five per cent of all cars are sold in these three territories, with Germany the largest market in Europe (Burns et al., 2002). Despite growth in emerging markets such as China, it is still the case that only around 8 per cent of the world’s population are car owners, and most of these remain in the industry’s three traditional markets (Jain and Guiver, 2001). Furthermore, Table 1.4 demonstrates that firms continue to dominate their home markets where they have their headquarters. US and European brands hold a 63 per cent share of their home markets. In the case of European manufacturers, the German car industry is of critical importance because in addition to dominating their home market with a 71 per cent share, German firms hold nearly half the market for new car registrations in the EU. The only possible emerging exception to this rule is the Japanese industry whose firms’ products penetrate markets outside Japan more than their EU or US counterparts, especially in the case of the US where they have taken a 28 per cent market share. Even so, they dominate their home market more than German and US firms do theirs with a 94 per cent share of registrations. The implication is that although firms should be concerned with global market trends and regulations, those corresponding to their own nationalities should be of critical importance because these are the markets they dominate and where they make most of their sales.

In summary, the car industry possesses both global and national attributes. It is an industry with globally networked operations in investment, production and distribution, but national strategic bases. These observations in respect of the car industry specifically, are reflected in more general observations by authors such as Wade (1996: 61) who stresses the
Introduction

enduring importance of national differences in the world economy which remains ‘more international than global. In the bigger economies, more than 80 per cent of production is for domestic consumption and more than 80 per cent of investment by domestic investors. Companies are rooted in national home bases with national regulatory regimes’.32 Wade’s comments have implications for states’ differing institutional frameworks, a point made by authors such as Boyer (1996: 51) who notes that ‘firms and sectors are clearly integrated within the international economy and, nevertheless, display very different institutional forms to cope with the same challenge of structural competitiveness. Even if the economic performances are quite similar, there is no one best way’. Therefore, a national comparative analysis on the basis of firms’ home states is appropriate for a book focusing on the car industry’s actions in respect of the environment, with potential implications beyond this to other industries. Hence the relevance of the VOC approach.

The Institutional Importance of Firms’ Home States: the Varieties of Capitalism Approach

Dicken (1998: 196) observes that MNCs are ‘produced through an intricate process of embedding in which the cognitive, cultural, social, political and economic characteristics of the national home base play a dominant part’. The evidence on the material importance of car firms’ home states,

<table>
<thead>
<tr>
<th></th>
<th>Share of EU registrations (%)</th>
<th>Share of US registrations (%)</th>
<th>Share of Japanese registrations (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>US brands</td>
<td>21</td>
<td>63</td>
<td>0.6</td>
</tr>
<tr>
<td>Asian brands</td>
<td>14</td>
<td>33</td>
<td>0.3</td>
</tr>
<tr>
<td>Specifically Japanese brands</td>
<td>11</td>
<td>28</td>
<td>94</td>
</tr>
<tr>
<td>European brands</td>
<td>63</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>Specifically German brands</td>
<td>46*</td>
<td>6</td>
<td>4</td>
</tr>
</tbody>
</table>

(71 per cent share of German registrations)

Note: * German brands are the market leaders in Europe.

Sources: VDA (2003: 24, 33 and 45); JAMA (2003: 6-7); CCFA (2003: 13).
despite their global operations, suggests that this perspective is especially relevant to them. Rather than placeless entities, they are likely to be institutionally embedded in their home states.

Although it would be an over-simplification to say that all MNCs from one home state are the same, firms from the same home state should share certain national characteristics. In this light, the VOC approach is a comparative institutional approach which holds that different capitalist states have different histories, cultures and structures that inform the nature of their capitalist relations, and that far from convergence on a liberal economic model globally, national differences persist. That is to say, the persistence of different institutional potentials gives rise to the persistence of different capitalisms.33

Given their different institutional potentials, the VOC approach sees capitalist states as either liberal market economies (LMEs) or coordinated market economies (CMEs). This is often presented in dichotomous terms, and those who do so are attacked by authors such as Crouch (2005a: 453) who say it amounts to designating mineral water as still or sparkling without bothering to consider a detailed chemical analysis of what is in the bottle. However, I prefer to think of the categorization more in terms of a continuum on one end of which are LME states such as the US, while at the other are CME states such as Germany and Japan. More problematic are states in between such as Spain, Portugal and Greece which occupy ‘more ambiguous positions’ (Hall and Soskice, 2001a: 21). But I agree with Pontusson (2005: 17) that ‘we should not think of typologies as being right or wrong. Rather, we should think of them as heuristic devices – ways of organizing information – that may be more or less useful’. Without splitting hairs, the central point is this: while these are all capitalist countries, their institutions establish different ‘rules of the game’. This has implications for how environmental problems are addressed, and indeed the success or otherwise of strategies for addressing them, because ‘in any national economy, firms will gravitate towards the mode of coordination for which there is institutional support’ (Hall and Soskice, 2001a: 8–9).34

Broadly speaking, firms in LMEs coordinate their activities via markets. In preferring market coordination of economic activity, they make their decisions based on market signals that define shorter-term profit levels. In regulatory terms, they therefore prefer deregulation over heavier state guidance and intervention. When they are subject to regulation, firms in LMEs will react more efficiently to clearly specified regulations, especially those aimed at altering market price signals.

Firms in CMEs are characterized by more non-market cooperative relationships to coordinate economic activity. It is not primarily the market and its price signals that determine their behavior, but relationships based
on cooperative networks. Firms in CMEs tend more towards consensus decision-making between a greater range of stakeholders internal and external to the firm based on long-established networks. They will react more efficiently to regulations based on negotiated and agreed rules and standards.

Obviously, the division between firms favoring cooperative coordination in CMEs versus deregulated market competition in LMEs is very broad. Underlying this divide are a myriad of aspects. The ones most applicable to the analysis in this book are explained in detail in Chapter 2. The point at this stage is that, as the WBCSD (2004) notes, institutions determine how environmental issues are addressed in different states, the extent to which corporations take the lead in encouraging change and the type of action they take.

SO WHAT’S NEW HERE?

Cutler et al. (1999b: 4) say that ‘in an era when the authority of the state appears to be challenged in so many ways, the existence of alternative sources of authority takes on great significance, especially when that authority is wielded internationally by profit-seeking entities’. If it is true that firms, as profit-seeking entities, increasingly exercise their power to affect social and environmental outcomes previously seen as the responsibility of states, then we should be looking at how they can take responsibility for their actions.35 I am therefore sympathetic with Hall and Soskice’s (2001a: 4, 6) desire ‘to bring firms back into the centre of the analysis of comparative capitalism’, in recognition that firms are ‘the crucial actors in a capitalist economy’,36 rather than seeing actors surrounding them such as social movements and the state as the primary actors in addressing environmental degradation.

However, this does not mean that the state is irrelevant. After all, employing the insights of the VOC approach as the theoretical basis for analysis demonstrably leaves the state ‘in’ the analysis. This is because ‘the basic institutional structures of MNCs may be influenced or even determined by the characteristics of states’ through the laws they make, but also how they frame markets and relations of production with them (Pauly and Reich, 1997: 5; see also Crouch, 2005a: 450). The key point to stress is that the analysis here represents an attempt to move away from the traditional liberal economic model where the state and its intervention is the focus of analysis, to one which sees a relational approach, underpinned by national institutional variations in capitalist relations of production, as having greater explanatory power.37
Focusing on the car industry, with its track record of producing products that are a major cause of global environmental damage, the point is then that if such an industry can improve the environmental impact of its operations, any industry can. Its linkages with firms in other industries that supply components and parts also suggests the potential for a strong multiplier effect from any behavioral change it initiates.\textsuperscript{38} Furthermore, given its visibility and the magnitude of its responsibility for environmental damage, any progress made in this industry is likely to have a strong demonstration effect in terms of bringing about cultural change in other less directly-related industries. In short, the centrality of the international car industry to the business/environment debate marks it out as a ‘crucial case’ and a ‘least likely’ case for environmental sustainability (Eckstein, 1975: 113–123; King et al., 1994: 208–212).

The VOC approach is one of ‘talking about social embeddedness, path dependency and comparative institutional advantage’ (Coates, 2005a: 4). Therefore, the analysis presented here represents an attempt to add to the institutionalist literature from an international perspective, rather than a global one. The insights of the VOC approach are used to support the empirical analysis conducted in respect of the car industry and the environment, but the converse is also true: the empirical analysis is used to support and extend the insights of the VOC approach. This is the case because in all the VOC literature, it is striking that there is little in-depth analysis of particular industry sectors or, as Hay (2005) notes, the relatively recent arrival on the scene of the VOC approach has not yet produced secondary literature that evaluates its core theoretical and substantive contributions. There is certainly no analysis that I am aware of from an environmental perspective. Related issue areas such as education and industrial relations feature, but not the environment.

Finally, given the two contrasting approaches to environmental externalities – one based on a rationalist material framework (the liberal economic model) and the other on a normative institutional one (the VOC approach) – the aim of this book is to assess whether the liberal economic model is universally applicable, and therefore sufficient to explain the behavior of firms, or whether it is a special case contingent on certain institutional foundations that may vary from state to state. The latter is shown to be the case. In taking a view that the nationality of firms matters, this book contributes to the VOC literature that promotes the perspective that rather than global isomorphism in the institutional foundations for economic affairs, national institutional differences persist. The new insights provided in this light are that the VOC of firms’ home states impact on whether they are more or less disposed to take environmental initiatives, and the form these initiatives are likely to take. Thus, it will be shown that
car firms’ environmental initiatives are a product of the institutions of their home states’ VOC.

CONCLUSION

The perspectives and issues outlined above give rise to three overarching, related questions. The first, and central question, is: what institutional factors are likely to motivate firms in the car industry to see environmental issues as central to their business interests? This is a more precise rendering of the question posed at the outset. The second question, related to the first one, is: are the motivators for firms embracing environmental improvements universal, or specific to firms based on their nationality or, possibly, individual cultures? Depending on the answers to the first two questions, the third is: why should the car industry be concerned about the environment, particularly given its global economic significance and resulting political power?

There is a dichotomy in how the questions are approached. On the one hand, the liberal economic perspective says that if environmental externalities are being internalized, this must be because firms are rationally responding to material exogenous factors: market forces and state regulation. On the other hand, the institutional perspective of the VOC approach says that institutional factors at the state level (i.e. the persistence of different Varieties of Capitalism) are relevant for how material factors are interpreted and their significance. The latter is preferred simply because it is not unreasonable to say that there is usually more than just ‘rational’ profit maximization going on because ‘the world does not fit the Panglossian belief that firms always make optimal choices’ (Porter and van der Linde, 1995a: 99). Indeed, both rational profit maximizing motivations and behavior based on institutionalized norms will be shown to explain the car industry’s actions. Although the two are often presented in a way that makes them appear mutually exclusive, this need not necessarily be the case. To lean too much one way or another is to lean towards ‘false extremes’ (Hall, 1993: 43).

The working hypothesis adopted in this book may therefore be expressed as the following statement made by Haufler (1999: 201): ‘corporate management obviously responds to market signals, as in the neoclassical model, but the character of that response is not equally obvious [because] corporate preferences are driven in part by norms about the appropriate approaches to business’. I similarly agree with the observation of Levy and Rothenberg (2002: 173) on the car industry in respect of climate change, that ‘the formulation of strategy is generally treated as a rational process
of matching corporate capabilities to market demands. But this does not always account well for the heterogeneity observed in corporate strategies towards complex environmental issues. The point is this: while both material and institutional factors matter, the former is always predicated on the latter. To quote Levy and Rothenberg 2002: 173) again, ‘market trends are themselves subject to institutional construction’. By employing the insights of the VOC approach, it will be shown that state-specific institutional variations in capitalist relations of production are crucial for understanding how firms of different nationalities approach the question of making environmental commitments given the material factors they face.

In Chapter 2, the insights of the VOC approach are outlined in greater detail as well as how the research will be operationalized by focusing on the environmental issue of climate change, and the car industry’s contribution to it via the CO₂ emissions of passenger cars. Chapter 3 outlines the actual environmental product development initiatives being undertaken by the car industry in respect of the CO₂ emissions of passenger cars, and highlights the different emphasis placed on these initiatives by firms depending on their ‘nationality’. This sets up the analysis to be conducted in the four empirical analysis chapters, Chapters 4 to 7. Chapters 4 and 5 examine the key material factors of state regulations and market forces. What is found is that the institutional insights of the VOC approach provide greater explanatory power than the rationalist perspective of the liberal economic model, and that the latter is sufficient only in the case of the US car industry because its LME attributes are themselves institutionally determined. The analysis then focuses on individual car firms in Chapters 6 and 7 by qualitatively examining their environmental reports and the results of interviews with key personnel. The analysis in these chapters encompasses institutional factors at the state level, but endogenous institutional factors emanating from within firms are also brought to bear. As such, not only do Chapters 6 and 7 present an analysis of firms’ first-hand perspectives, they also serve to uncover the role played by such factors in greater detail that are not revealed by analysing exogenous state regulations or market forces alone. Chapter 8 presents the conclusions.

NOTES

1. The classic opinion piece that popularized this view is that of Friedman (1970). In it, he said ‘there is one and only one social responsibility of business – to use its resources and engage in activities designed to increase its profits so long as it stays within the rules of the game’.
2. Perhaps the best overview of the VOC approach is provided by the contributions in Hall and Soskice (2001b).

3. Dicken (2003: 375–736) notes that all three major US producers have collaborative or cross-ownership links with Japanese and Korean firms, and the major European firms have joint research programs. A similar point is made by Koshiha et al. (2001). A comprehensive list of firms and their cross-ownership structures is provided by Deutsche Bank (2004: 13). For example, in 2004 General Motors owned 12 per cent of Isuzu, 20 per cent of Suzuki, 42 per cent of Daewoo, 20 per cent of Fuji Heavy Industries, 100 per cent of Saab and 100 per cent of Opel/Vauxhall.

4. This is calculated as follows. Paterson (2000) says that up to 85 per cent of transport-related CO₂ emissions are caused by passenger cars, and that transport in total accounts for 23 per cent of emissions in OECD countries. Therefore, this means that 19.55 per cent of OECD countries’ CO₂ emissions are car-related (i.e. 85 per cent × 23 per cent). He goes on to say that these emissions are only around 60 per cent of emissions throughout the life of a car, the rest coming from other related activities. When one inflates the 19.55 per cent of OECD emissions to take account of this, the total is 32.6 per cent (i.e. 100/60 × 19.55 per cent). This corresponds reasonably closely with the figure of 30 per cent for the transport sector quoted in Deutsche Bank (2004: 58).

5. This is based on Germany and Japan’s commitments to reduce their emissions by 7.4 and 8.5 per cent respectively. The US had made commitments to reduce its emissions by 7 per cent, but subsequently decided not to ratify the Kyoto Protocol.

6. Freund and Martin (1993: 17–19) point out that cars consume 35 per cent of the oil used in Japan and 63 per cent of the oil used in the US simply in their application (i.e. exclusive of related activities such as road building which also uses oil). In the US, car production consumes 13 per cent of all steel, 16 per cent of the aluminum, 69 per cent of the lead, 36 per cent of the platinum and 58 per cent of the rubber.

7. This is based on a conversion from 7 billion pounds.

8. For example, in his speech to the Fifth Annual Greenpeace Business Conference in 2000, Bill Ford, said his company had resigned its membership of the GCC because it ‘felt that membership in that organization was an impediment to [its] ability to move forward credibly with [its] agenda on environmental responsibility’ (Ford Motor Company, 2000; see also Source Watch, no date; Beder, 2002: 238–239).

9. In fact, light trucks such as SUVs accounted for around 75 per cent of DaimlerChrysler’s US production over the period considered in this book. See also The Economist, 2002b, 2003.


11. Australia, Kazakhstan, Croatia, Monaco and the US were the only non-ratifiers. With its change of government in 2007, Australia has now joined the rest of the world in signing up to the treaty.

12. See also Karliner (1997: 30) who discusses how corporate environmental departments and policies emerged within major corporations, along with senior executives coming to be in charge of environmental issues.

13. A similar viewpoint on the car industry is evident in Hawken et al. (1999).

14. This is an observation based on perusing firms’ reporting since the late 1980s to the early 1990s. Many started with environmental reports, or environmental statements and guidelines, that have subsequently been incorporated in broader corporate citizenship or corporate social responsibility reports.

15. Ford and General Motors’ first environmental reports were produced in 1989 and 1994 respectively.

16. This is based on a review of the environmental reports available from the major firms’ websites, and/or discussion of them there. In addition, pdf files on firms’ environmental initiatives downloaded from the website of the UNEP’s Division of Technology, Industry and Economics were used to confirm firms’ first year of publication of environmental reports (UNEP, no date).
There is a wide and well understood body of literature on environmental externalities and market failure. The classic articles are Hardin (1968) and Coase (1960). A basic explanation of many of the concepts may be found in almost any economics textbook, such as Boadway and Wildasin (1984: 55–62). For a more social and political perspective see Ostrom (1990, especially Chapter 1). For a discussion of the application of the concepts see Bürgenmeier (1997). In an international relations context see Greene (2005).

In the discipline of economics, the technical name given to the mainstream liberal economic perspective is, of course, neoclassical economics.

For an excellent description of classical liberalism see Crane and Amawi (1997). For a further introductory elaboration of the liberal economic perspective in a more contemporary sense see Dunne (2005) and Lamy (2005). For an analysis of economic liberalism from a critical perspective see Helleiner (2003). For an analysis, and criticism, of rationalism as a way of conceiving the actions of actors generally, see the now classic Green and Shapiro (1994).

This is also the view held by the WTO and UNEP. See UNEP and International Institute for Sustainable Development (2000), and Nordstrom and Vaughan (1999).

I accept that it might be mischievous to cast Goldstein and Keohane as staunch advocates of the institutional approach, but the importance of the approach is explicitly acknowledged and addressed by them.


For example, Karliner (1997: 2) sees the role of states and business in the environment debate as constrained by the rise of neoliberalism which opposes the notion of states intervening for the ‘social good’.

Strange (1996) sees global capital’s ability to transcend borders as resulting in states becoming powerless, with power having transferred to markets. Ohmae (1990) similarly sees the world as becoming ‘borderless’, with corporate strategies now characterized predominantly by a global perspective. In Friedman’s (1999) view, states must adopt the ‘golden straightjacket’ approach to intervening in their economies, in the sense that any activist-style policies run the risk of capital flight. By way of contrast, though not necessarily contradiction, a more critical perspective is provided by Helleiner (2003). He identifies Margaret Thatcher’s ‘TINA Principle’ (‘There Is No Alternative’ to neoliberal policies of minimum state intervention in markets due to the global interconnectedness of production and trade) as a choice taken by powerful industrialized states.

There are smaller firms such as Mitsubishi in Japan, but it is not a major producer in the sense that its car production is 26 per cent less than that of the smallest firm here, BMW. The disparity is, if anything, exacerbated if one considers that BMW is a niche prestige producer, whereas Mitsubishi is a volume producer (OICA, 2007). The TNI is used by the United Nations Conference on Trade and Environment (UNCTAD) and is a simple composite average of foreign assets, sales and employment to total assets, sales and employment.

For a general overview of the arguments, see also Hay (2006c).

This view coincides with that of Hirst and Thompson (1997: 346), who note that there are few truly transnational corporations and that ‘most major manufacturing multinationals account for two thirds of their sales within their home region; moreover, there seems to be no tendency for this ratio to diminish’. More broadly, it agrees with authors such as Rugman (2005) who see the strategic impact of globalization as overstated because firms’ nationalities, home markets and the regions in which they are located remain of crucial importance.

They are: Volkswagen, BMW, DaimlerChrysler, Porsche, PSA Peugeot Citroen, General Motors, Ford, Renault, Toyota, Honda, Hyundai and Rover.

Although, of course, this two-thirds only reflects the actual number of firms rather than their size and economic importance. For example, of the other four independent firms,
two are quite small: Rover has since gone into bankruptcy and Porsche is a niche producer of expensive high performance sports cars.

30. Maxton and Wormald (2004: 116 and 221–222) refer to Chrysler as having been ‘bought by Daimler’, but Nissan as having been ‘subsumed (but nicely this time) into Renault’. There is therefore a qualitative difference in the associations of the companies involved in each case. Indeed, The Economist notes the following: ‘Although Renault and Nissan have cross-shareholdings and a deep alliance, their relationship deliberately stops well short of outright merger. Perhaps that is why it has been so successful, avoiding the integration pain that has marred, for instance, Daimler-Benz’s takeover of Chrysler.

In his book, Shift: Inside Nissan’s Historic Revival, published in English last month, Mr Ghosn (former President and CEO of Nissan) says that the strength of the alliance “can be found, on the one hand, in its respect for the identities of the two companies, and on the other, in the necessity for developing synergies”’ (The Economist, 2005 with emphasis added). For a colorful description of the takeover of Chrysler by Daimler-Benz see Vlasic and Stertz (2001). For Renault’s share in Nissan and the nature of the relationship between the two companies from Renault’s perspective, see Renault (2001: 12–15). See also Deutsche Bank (2002 and 2004) for the cross-ownership percentages.

31. Data on German car sales were presented in Table 1.1 by value. For data on sales volume (i.e. units sold) which show that Germany is the largest market in Europe on this basis as well, see ACEA (no date a). For a historical time series showing this to be true for the time period covered in this book, see ACEA (no date b).

32. He also points out that the observations made here on national ownership and geographical location of operations are generalizable to MNCs more generally. Similar observations are made by Weiss (1998).

33. The literature in this vein continues to burgeon. In addition to Hall and Soskice (2001b), it includes contributions in other edited works such as Coates (2005b); Kitschelt et al. (1999b), Crouch and Streeck (1997); Hollingsworth and Boyer (1997); Berger and Dore (1996); and Clegg and Redding (1990). Contributions from these are cited in the following chapter.

34. The following is a brief summary of the points they make at pp. 21–33.

35. There are many authors who assert this, and it is a major part of the thinking that underpins the CSR literature. For example, Korten (quoted in Lawrence et al., 2005: 47) sees it as avoidable that business, as the ‘most powerful institution on the planet’ and therefore the ‘dominant institution in society’ must take the place of the state and ‘take responsibility’ for its actions in the face of receding state regulation.

36. A similar desire is expressed in Hall (1999: 147).

37. It is worth noting that such an approach is not at odds with that advocated by the OECD (2001a, b). Seiichi Kondo, former Deputy Secretary General of the OECD, is quoted as having said that ‘international order and prosperity is no longer achieved through a traditional balance of power among states, nor through the hegemony of a superpower. In this new age of globalization, cooperation among four key actors – states, international organizations, civil society and markets – has become more essential than ever’ (OECD, 2001b: 80).

38. It is estimated that one qualified job in the automotive industry indirectly creates up to ten qualified jobs in related industry sectors (UNEP, 2002: 24). Dicken (1998: 326) actually describes the car industry as an ‘assembly industry’ requiring hundreds of thousands of components mostly sourced from suppliers worldwide.