Transnational corporations and ‘obligated embeddedness’: foreign direct investment in China’s automobile industry

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Abstract. With the aid of an empirical case study of the automobile industry in China, we explore how, under certain political-economic conditions, the investments of transnational corporations (TNCs) can be shaped to meet the state's objectives. We develop the concept of ‘obligated embeddedness’ to capture the dynamics of this process. We show that foreign direct investment in the automobile industry in China is a type of market-led and embedded investment which is characterised by joint ventures and the follow-up network configurations. However, to achieve such obligated embeddedness on the part of TNCs—and for the state and its citizens to gain its benefits—the state not only has to have the theoretical capacity to control access to assets located within its territory, but also the power actually to determine such access.

Introduction
The global geography of the automobile industry, always in a state of flux, has entered a new phase. A combination of massive production overcapacity, together with structural–geographical shifts in market demand, continuing technological transformation, tightening environmental regulation, and changing relationships between automobile assemblers and their components suppliers, has produced a crisis for most of the major automobile manufacturers. At the same time, national states around the world persist in their attempts to seduce the major automobile firms to locate new production capacity within their territories in the continuing belief that the automobile industries can still provide a major developmental impetus. Although Humphrey (2000) rightly poses the question as to how worthwhile an auto-centred development strategy might be in today’s circumstances, few, if any, states show signs of jumping off that particular bandwagon. Indeed, interstate (and intrastate) competition has intensified. Within this general context, our aim in this paper is to explore ‘the Chinese way’ of using foreign capital and expertise to build its modern automobile industry through specific forms of integration with automobile firms’ global production networks.

China has become the fastest growing automobile market in the world. While stagnant demand and associated overcapacity continue to bedevil the mature automobile markets of North America and most of Europe, the combination of historically low absolute levels of vehicle ownership, together with rising affluence in the major cities, has resulted in China’s emergence as the third largest automobile market in the world, after the United States and Japan (The Financial Times 17 October 2003, page 19). At the same time, the industry in China has also experienced turbulent spatial restructuring.

Underlying such rapid growth and spatial change has been the inflow of foreign direct investment (FDI). By 2003 all of the world’s leading automobile producers had established production facilities in China in various forms. To varying degrees,
therefore, China’s automobile industry is becoming integrated into the global production networks (GPNs) of transnational corporations (TNCs). But so far, as we show in this paper, this has been, to a very considerable degree, on terms dictated by the Chinese government.

The paper is organised as follows. In the next section, we address briefly some of the basic elements of the relationships between TNCs and host countries, stressing in particular issues of power and bargaining and the degree to which TNC investments may become locally embedded in the host economy. On the basis of this generalised discussion we move, in the following section, to the core of the paper: the ‘specific bargain’ that has been struck between the Chinese state and automobile TNCs anxious to gain access both to the fast-growing Chinese market and also to low-cost production sites. That discussion is organised in three parts. First, we analyse the scale and nature of TNC investment in China’s automobile industry. Second, we outline the major characteristics of what might, for convenience, be called the institutional context within China. Third, we investigate the strategies adopted by automobile TNCs in adapting to the Chinese situation. In the final section of the paper we draw some comparisons between the development of the automobile industry in China and that which has developed in emerging market economies in some other parts of the world.

Transnational corporations and host countries: power, bargaining, and degrees of embeddedness

One of the myths of the current globalisation discourse is that the power of the state is being eroded inexorably by the allegedly unstoppable power of TNCs, especially so-called ‘global’ corporations. Setting aside the empirical question of whether ‘global’ corporations actually exist (see Dicken, 2003b), the notion of the alleged general TNC-induced weakening of the state requires a more nuanced response than is often the case. In this regard, Stopford and Strange’s observations remain highly relevant. As they argue:

“governments as a group have indeed lost bargaining power to the multinationals ... [however] ... [i]ntensifying competition among states seems to have been a more important force for weakening their bargaining power than have the changes in global competition among firms. This is not to deny that governments can maintain considerable power in their dealings with any one foreign firm. The reasons lie in the nature of the competition for world market shares ... [D]oes it follow that firms as a group have increased their bargaining power ...? Here the argument becomes more complex, for the power of the individual firm may be regarded as having also fallen as competition has intensified. New entrants have altered the rules and offer governments new bargaining advantage ... [Hence] one needs to separate the power to influence general policy from the power to insist on specific bargains” (1991, pages 215 – 216, original emphasis).

Here, we firmly subscribe to the position that power is a relational effect, and not an absolute attribute of structural position (Allen, 2003). As Yeung (2004, pages 8 – 9, original emphasis) argues, power consists of

“the relational effects of the capacity to influence and the exercise of this capacity through actor-specific practice .... I see power as the emergent effects of social practice among actors who have the capacity and resources to influence .... While capacity is inscribed in heterogeneous relations in a structural sense, its causality is effectual through actor-specific practice and therefore cannot be determined a priori. The relational effects of power are multi-directional because some actors derive their capacity to influence from structural positions, whereas others experience power through relational practice.”
One element of this relationality derives from the different territorialities of TNCs and states (Dicken and Malmberg, 2001). TNCs have ‘discontinuous territoriality’: they occupy parts of the economic–political spaces of states. States, conversely, possess ‘continuous territoriality’ as enshrined in international law (empires, of course, are the exception to this). In consequence, the flexible and discontinuous territories of TNCs overlap, and interpenetrate, the relatively fixed and coterminous territories of states (both national and local). Such differential territoriality undoubtedly has an influence on the potential asymmetry in power and bargaining relationships between TNCs and states. But it does not create a universal directionality to such power relationships; we need to address the specific circumstances involved.

In this paper the ‘specific circumstances’ discussed are those of automobile TNCs seeking investment locations in which to produce and distribute their goods and services within an intensely competitive global environment, and of states seeking capital and, especially, technology through becoming inserted into firms’ global production networks. Our empirical focus is China. Both sets of actors are attempting to achieve these objectives on terms most favourable to their own aspirations. In terms of these respective aspirations, and the strategies through which they are pursued, both firms and states are locked into n-actor bargaining processes—firms with firms, firms with states, states with states (as well as with other actors, including labour and local communities)—the outcomes of which are highly contingent and in which the precise geometry of power may well change over time.

Sui generis, firms (including TNCs) and states have quite different goals. Expressed in the most general terms, the basic goal of capitalist business organisations is to maximise profits and, especially in the Anglo–US context, ‘shareholder value’, whereas the basic economic goal of the state is, or should be, to maximise the material welfare of its society. It is in this context that the different strategic motivations of TNCs on the one hand and states on the other often diverge, particularly as TNC global production networks become increasingly intricate, both organisationally and geographically (Coe et al, 2004; Dicken, 2003a; Henderson et al, 2002) and involve complex cross-border movements of materials, components, and finished products. In any specific circumstance, the relative bargaining power of the actors involved depends in large part on the extent to which each possesses assets sought by the other party and the extent to which either party can control that access. Ability to control access to specific assets is a major source of bargaining strength. Where such assets are ubiquitous in their availability—or at least available in a number of locations or organisations—then the power gradient will be shallow or even nonexistent. But where a particular sought asset is highly ‘localised’ (either geographically or organisationally) then the power gradient will be steep. The actor who controls access will have the greatest bargaining power.

For example, a state that controls access to a large, affluent, domestic market has greater relative bargaining power over a TNC pursuing a market-oriented strategy than a state whose domestic market is small. It is in such circumstances that the state’s power to impose ‘performance requirements’ on a firm seeking entry is greatest. On the other hand, if a firm’s requirement is for access to low-cost labour that is widely available in alternative locations, then the bargaining power of any one state will be limited. At the extreme, of course, both states and firms may be able to exercise the ultimate sanction over the other: a firm may choose not to invest in a particular location, or to disinvest; conversely, a state may decide to exclude a particular firm or to appropriate an existing facility. Although such extreme sanctions are rarely exercised, the threat to do so is a normal part of TNC–state bargaining processes.

In general, TNCs wish to maximise their locational flexibility to take advantage of geographical differences in the availability, quality, and cost of production inputs in

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serving their existing and new markets. Their ideal would be to pursue such goals without any hindrance from the regulatory practices of states. States, on the other hand, strive to capture as much as possible of the value created from production within their territories [for a fuller discussion of ‘value’ in this context, see Coe et al (2004) and Henderson et al (2002)]. In this sense, a primary aim of a host state is to try to embed a TNC’s activities as strongly as possible in the local/national economy. Here, we use the term ‘embed’ in a very precise way to capture the extent to which an activity becomes fixed in a particular place and, as such, contributes to local/national economic development through both direct and indirect spinoffs (including backward linkages with local suppliers). This is the type of embeddedness discussed by Dicken et al (1994). We are not concerned in this paper with the broader sociocultural processes of embeddedness, which have become the focus of a huge literature [for a recent discussion of this broader ‘embeddedness’ literature, see Hess (2004)].

One way of thinking about this specific process is to conceive of two ideal types of embeddedness: active embeddedness and obligated embeddedness. Active embeddedness reflects the situation in which a TNC seeks out localised assets and incorporates them, as a matter of choice, within its operations. Where such localised assets are widely available in different geographical locations then, as we argued above, the power of such choice rests primarily with the TNC. However, the less ubiquitous the assets (or where access to them is controlled by the state) the more likely the state is to have a greater degree of bargaining power over the terms on which the TNC can utilise them. In such circumstances, embeddedness is likely to take an obligated form: that is, the TNC is forced to comply with state criteria in order to gain access to, and use of, the desired asset. Obligated embeddedness, therefore, is likely to occur where two conditions are satisfied. First, there must be a localised asset that is highly important to a TNC (this may include a natural resource, a human resource, and/or a significant market) and to which it needs access in order to achieve its business goals. Second, access to that resource must be controlled by the state within whose territory the asset is located and the state must have the power to exert that control.

‘Striking bargains’: the state and TNCs in the Chinese automobile industry

The recent, rather spectacular, emergence of the Chinese automobile industry as a global force helps to demonstrate how specific circumstances determine the outcome of the bargaining processes between TNCs and states, as the TNCs strive to build a presence in what is seen as the most important potential market and as the state strives to capture the benefits of local production through connections with the global production networks of automobile TNCs.

FDI in the Chinese automobile industry: scale and geographical distribution

By 2002 cumulative FDI inflow into China’s automobile industry amounted to US$10 billion. Of this cumulative total, 51% was in assembly and 49% in components production. However, the balance between assembly and components production has changed over time as figure 1 shows. Before 1994, 70% of automobile FDI inflow went into assembly. Between 1994 and 1996, 83% of FDI inflow was into components manufacture. Between 1996 and 2002 the emphasis shifted back towards assembly (77% of FDI). Such changes in FDI inflow reflect the evolution of China’s automotive industry policies (Sit and Liu, 2000). In 1994–96, the Chinese central government stopped approval of new FDI projects in assembly and placed strict controls on localisation of existing assembly joint ventures, which strongly encouraged the inflow of parts-making FDI, given that the existing domestic supply industry in China was very
weak at that time. As a result, FDI inflow into parts making in these three years accounted for 63% of total cumulative FDI into parts making.

Figure 2 shows the geographical origins of automobile FDI inflow into China by 2002. Both in the assembly and in the parts-making sectors, the major sources of FDI inflow are, not surprisingly, the world’s leading automobile producers: the USA, Germany, Japan, Korea, and France. In assembly these five countries account for 71.8% of total FDI inflow and their share in parts-making FDI inflow is 69.7%. A clear feature displayed in figure 2 is that Japanese firms invest much more in parts making than in assembly, whereas, in contrast, French firms have much more investment

Figure 1. Foreign direct investment by contract in the automobile industry in China, 1983–2003 (sources: Wheelon Co Ltd, 2002; data on assembly FDI in 2002 and 2003 refer to Beijing–Hyundai and Dongfeng–Nissan, respectively, which are based on news reports on these two joint ventures in China).

Figure 2. Country of origin of foreign direct investment (FDI) into China’s auto industry by 2002: (a) assembly, (b) parts (source: Wheelon Co Ltd, 2002).
in assembly than in parts making in China. In these, and other, ways different strategies of
TNCs from different countries are apparent (Dicken, 2003b).

Geographically, automobile-related FDI inflow into China has been concentrated in
ine nine cities (figure 3) which together account for 66% of the total: Shanghai, Changchun,
Nanjing, Beijing, Chongqing, Shenyang, Wuhan, Tianjin, and Guangzhou. These cities
are the major automobile-production centres in China, producing 53% of the total
motor vehicles and 90% of the total cars built in the country in 2002. Centred on these
cities, six FDI-based regional clusters of automobile production have emerged
(figure 4). In 2002 these six regions accounted for 77% of the total FDI inflow so
far into China’s automobile industry, whereas their share in national GDP was less
than 30%.

![Figure 3. Share of major cities in the total foreign direct investment into China’s auto industry by 2002 (source: Wheelon Co Ltd, 2002).](image)

![Figure 4. Spatial concentration of cumulative auto-related foreign direct investment (FDI) by contract in China (source: Wheelon Co Ltd, 2002).](image)
Producing automobiles in China: the institutional context

A critical element of the bargaining process is the nature of the conventions, rules, and institutions which form the environment in which TNCs must operate. In the Chinese case, this institutional context (to use a short-hand term) is extremely complex, not to say mysteriously opaque, in some respects—especially for foreign investors. Here we briefly outline five key specific dimensions of the complex sociopolitical environment in China: the political structure; the historical legacy of the command economy: central–local state rivalry; government industrial policy and regulation; and social norms.

Political structure

The political system in China has been extensively discussed by political scientists and we need not go into details here. In political terms China is a communist state; the Communist Party of China (CPC) is the country’s sole political party. Despite reforms the CPC still retains effective control over governmental appointments and thus can efficiently mobilise nationwide resources to fulfil a specific target, such as economic development. Indeed, the appointments of the general managers of large state-owned corporations are controlled by the CPC, and a few general managers of the large automobile corporations in China, such as First Auto Work Group (FAW), even sit on the CPC Central Committee. In general, through a mechanism whereby the party controls government leaders and the government governs socioeconomic development, the CPC makes the Chinese state a powerful unit with strong bargaining power against other actors, such as TNCs. However, the Party now pursues both a socialist road and the development of a market economy and currently views economic development as its central task. This is ‘socialism with a Chinese face’. In the words of Deng Xiaoping, “it does not matter if a cat is black or white as long as it catches mice.”

Historical legacies of the command economy

Since the 1990s many aspects of the command system have been dismantled: for example, the long-established practice of tight central control over the supply of raw materials and distribution of final products of firms while the firms themselves were only responsible for production [see Yang (1995) for a case in the automobile sector]. Nevertheless, the Chinese central government still maintains close scrutiny of important investment projects, including those in the automobile sector. For example, before 1994 all provincial governments had rights to approve FDI-involved projects with an investment ceiling of US$30 million. In 1994 the central government took back these rights for approval of projects in car and light-vehicle assembly and in engine manufacturing.

In addition to the requirement for approval for investment projects, the import of new vehicle models (particularly cars and light vehicles) in existing joint ventures also required approval from the central authority. Under such conditions, two ways were open to firms to accelerate the renewal of their vehicle models. One was to canvass for approval from the central government, which required close ties with top leaders; the other was to operate covertly and seek approval only when the new model was put into production—which normally needed support from local authorities.

In 1998 the central authority in charge of the automobile industry (the Bureau of the Automotive Industry within the Ministry of Machinery Industry) was abolished. Some of its functions were transferred to the State Economic and Trade Commission (SETC) and other functions were removed altogether. From then onwards, the introduction (import) of new models of cars to joint ventures has been accelerated. For example, Volkswagen (VW) introduced its Passat model into Shanghai–VW (SVW) in 1998, the Polo in 2001, the Gol in 2002, and the Bora and Golf into FAW–VW in 2001 and 2003, respectively. In 2003 the SETC was reformed into the Ministry of
Commerce, which seemed to imply that the direct control of the central government over economic activities had faded away. In fact, however, the requirement for approval of large investment projects remains as it was in the past.

**Central – local state rivalry**

The specificities of China’s sociopolitical environment can also be seen in the context of the connections between central and local governments in China. Since the Opening and Reform in 1978 China has experienced significant decentralisation and local governments have been given more independent fiscal rights and decisionmaking power. This devolution has stimulated local economic initiatives but, at the same time, it has resulted in intensified local rivalry because of the legacies of the past command economy. Local protectionism is one result of interprovincial rivalry, and it is a serious issue in the automobile industry because the industry has—at least potentially—such a high employment and output multiplier. As a result, local authorities have become major stakeholders in the development of the industry. In effect, therefore, the central government, local authorities, and TNCs form a triangular relationship (Wang and Liu, 2000).

Such rivalry and protection occur in many ways. Local authorities may use regulations and policies to stimulate the purchase of motor vehicles built within their jurisdiction. For example, the Shanghai Municipal Government once required that every taxi in the city must be a Santana produced by SVW and levied a lower licence tax on Santana buyers living in its suburban area. The Hubei Provincial Government required its subordinate departments to buy the Citroen-ZX, built by the Second Auto Work – Citroen (SAW – Citroen) in Wuhan, the capital of Hubei province. Duplication of investments is another product of interprovincial rivalry, as local governments strive to develop their own automotive businesses. In the ninth Five Year Plan (1996 – 2000), no fewer than twenty-five of the thirty-one provinces in China designated the automotive industry as their pillar industrial sector.

Local protectionism has made it difficult for some TNCs to optimise their investments and to achieve economies of scale. For example, the US component firm, Delphi, established four wiring-harness ventures in China instead of one production centre; and VW established two separate engine plants in Shanghai and Changchun to satisfy its regionally distinct partners. On the other hand, local rivalry helped TNCs to enter China while the central government exerted strict control over the approval of large FDI-involved projects. In this case, TNCs would cooperate with local governments to start their businesses in China with a small investment project that could be approved by the local government (for example, projects with an investment of less than US$30 million). Alternatively, they could collaborate with the local governments eager for FDI and willing to depart from, or modify, the policies of the central government. By such ‘innovative’ methods, TNCs could start businesses in China and then seek approval from the Chinese central government when national policies became more flexible and accommodative.

**Government industrial policy in the automobile industry**

In the late 1980s China selected the automobile industry as a key strategic sector—with car production as the linchpin. This marked a shift in the emphasis of the Chinese central government, from a focus on commercial vehicles to one on family cars. In 1987 the central government produced an allocation map of car production, which came to be called the ‘three big and three small’ strategy. The ‘three big’ were FAW, SAW, and SVW; and the ‘three small’ referred to Beijing Jeep (BJC), the Tianjin Automobile Plant (TAP) and Guangzhou – Peugeot (see Sit and Liu, 2000). Under this

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(1) Guangzhou – Peugeot was closed in 1997 and Honda took over Peugeot’s position in Guangzhou.
strategy, the central government tried to support only these six car assemblers and limited other entrants into car production.

The basic bargaining strategy of the Chinese government towards automobile-related FDI has been to trade access to the domestic market, which it controls unequivocally, in return for capital and technology. The aim has been to accelerate the development of the industry whilst, at the same time, avoiding ceding full control of the industry to foreign TNCs. Until 1994, however, the central government did not have consistent and systemic industrial policies on automobile-related FDI inflow, with one exception: assembly-related FDI had to take the form of joint ventures. Other regulatory elements included localisation requirements and quotas on imported CKD/SKD (completely or semi-knocked down) parts. These policies were adopted largely in response to foreign payment pressures at the time. From the early 1990s onwards the Chinese central government started to apply differential preferential tariffs to parts imported by assembly firms involved with FDI, according to the local content they achieved.

In 1994 the Chinese government promulgated the China Automotive Industry Policy (hereafter, the policy), which provided a set of integrated regulations on the entry of automobile-related FDI. The policy set out clear requirements for the formation of joint ventures, the qualification of foreign partners, and product localisation. For example, joint ventures were required to establish an internal research and development (R&D) centre, to produce motor vehicles to international standards and, whenever possible, to achieve an internal foreign currency balance. A TNC was allowed to have up to two joint ventures or cooperative ventures producing the same kind of vehicles (for example, car, light vehicle, or truck). Moreover, in assembly and engine-manufacture joint ventures, foreign equity could not exceed 50%. Assembly joint ventures had to undertake localisation, and the level of local content achieved was one of the prerequisites for permission to produce a second vehicle model. Later, new assembly joint ventures were required to have a start-up local content of at least 40% and to raise this to 60% in three years.

Recently, in order to qualify for entry to the World Trade Organization (WTO), the Chinese government has made some concessions and loosened its control over the automobile industry. For example, tariffs on imported CBUs (completely built units) will be reduced gradually from the present 80%–100% to 25% by July 2006, and the tariff on imported parts and components will be reduced to 10%. Requirements relating to local content and internal foreign currency balances are also to be abandoned. According to the new Automotive Industry Policy of China announced in early 2004, however, other key elements of the aforementioned regulations on auto-related FDI inflow are to be retained, for example, the joint-venture requirement, and approval of large investment projects in car assembly. These recent developments have added new variables to the bargaining between the Chinese government and TNCs. However, the strong position of the Chinese government in bargaining has not been weakened markedly as it still retains the right to approve new joint ventures and to decide which Chinese firms can develop joint ventures with foreign TNCs, though such decision-making is based on bargaining between the central and local governments. Yet it will take time to understand the real influences of these new developments on the power relationship between the Chinese government and auto-producing TNCs.

Social norms
The particular kinds of social relationship characteristic of China also help to explain the specificities of China’s sociopolitical environment. First, there is the particular importance of reciprocal social relationships, or guanxi (see, for example, Yeung and Olds, 2000). Some form of guanxi exists in every society, but it has different
manifestations in different societies. In China, guanxi particularly occurs in the relationships with government officials, rather than with business peers, and it often overlaps with formal interorganisational relationships. As Oliver et al (1998) comment, if an individual in an organization changes position, then the whole set of business relationships around that role can also change” (page 48).

The second important social dimension of the Chinese situation is related to the nature and working of the bureaucracy. In the past it was a notoriously bureaucratic procedure to complete a project approval and to start a business operation in China. Foreign investors had to be familiar with the operation of the governments at different levels, and to know which government department was in charge of what and was able to solve which kinds of problem. More specifically, it was not just a matter of knowing the right office or department but, rather, of knowing the right person for the right matter. For example, when BJC faced a foreign currency crisis concerning parts imports in its early days, the foreign partner approached the then Premier Zhao Ziyang for a solution (Harwit, 1995, pages 71 – 76). Mr Posth, former Chairman and President of VW Asia – Pacific Ltd, was lauded for his ability to overcome the ‘normal China problems’; that is, he knew to whom he should speak when problems appeared (Clark, 1997).

The combined effects of guanxi and the bureaucratic system are reflected in power establishments and their close relationship with top leaders. By ‘power establishment’, we mean a large corporation or a group of firms subordinated to an industrial ministry or a local government, which has its individual interest and the power to bargain with other actors (corporations or the central government). It is not a secret that top Chinese leaders have sometimes given ‘special instructions’ to industry ministries. This is the reason why some large firms and important cities have been able to get special treatment from the central authorities. Shanghai is a case in point. The Shanghai municipality was granted special permission to levy a localisation tax on Santana buyers. By the end of 1994, when this discriminatory policy was terminated, the Shanghai Municipal Government had accumulated RMB 6 billion (more than US $1.2 billion at the prevailing exchange rate) as a localisation fund for the Santana. This special fund has benefited suppliers located in the city and other suppliers affiliated to SVW. According to Harwit (1995, pages 109 – 114), this special treatment given to SVW was tied to the then Mayor, and later State Premier, Zhu Rongji.

TNC strategies and obligated embeddedness in China’s automobile industry
By 2003 all the big names in world automobile assembly had invested in China, and all of these investments have taken the form of joint ventures (table 1), as required by the industrial policy of the Chinese government. As such, these TNCs have developed highly complicated network relationships, both with Chinese firms and also between themselves (see figure 5, over). In principle, the FDI of each of these TNCs is essentially horizontal, that is, targeted at the huge potential Chinese automobile market. In practice, however, they have different strategies towards making investments in China. These strategies depend upon their different corporate cultures and the timing of their entry into China, as well as their response to the joint-venture ‘quota’ (which allows up to two joint ventures). On the other hand, the Chinese government uses control over the rate of TNC entry into China to play off TNCs against each other which, of course, entails a learning process on the part of the Chinese government on how to bargain with TNCs. For example, the government would introduce competitors by approving new joint ventures when its position in the bargaining with a particular TNC already in China was lower. Because it is impossible, in one paper, to review the strategies of all auto-producing TNCs in China, we take VW, General Motors (GM),
and Toyota as examples to illustrate TNCs’ strategies in China’s automobile industry [see Harwit (1995) and Yang (1995) for a detailed discussion of the success and failure of the early TNC entrants].

VW was one of the earliest entrants into China’s automobile industry (in 1985) and still maintains the biggest market share, although its position has been eroded by the entry of other TNCs. For more than ten years after its initial entry, through its two joint ventures (SVW and FAW – VW) VW was virtually unchallenged in the Chinese automobile market, making its brand name very popular in China. There are many reasons for VW’s success, but one critical reason is its capacity to adapt to the regulatory framework, as demonstrated by its active efforts in helping to upgrade local supply industries and to increase its localisation level (see the next section for the process of localisation in SVW). Another early entrant, Peugeot, failed mainly because of localisation issues (Harwit, 1995). VW’s embeddedness was increased by the granting of a second joint venture (FAW – VW) in 1990. Clearly, VW had learned how to bargain with the Chinese government by mobilising its own power. Other main reasons for VW’s success may lie with its Chinese partners and model choice. Both FAW and SVW are among the ‘big three’ in the allocation of car production, and the Santana model produced by SVW did fit the road and petrol conditions in China in the 1980s and early 1990s, although it is outdated for the international market. Perhaps satisfied with the strong position of its Chinese partners, VW has not tried to extend its production sites to other locations in China (the production of Audi was originally in FAW, but was integrated into FAW – VW later). Although VW made active efforts in helping to upgrade local supply industries, it was not interested in R&D investment in China until GM was allowed to enter China and established the Pan-Asian Automotive Technical Center in Shanghai in 1997. Recently, VW established a design center in Shanghai, which has become part of its global R&D network.

TNCs may extend their networks in China via the help of their Chinese partners or via their international affiliates. GM’s development in China is one such case. At present, the GM ‘group’ has the most intensive network of automotive production

<table>
<thead>
<tr>
<th>Name</th>
<th>Investment by contract (US $ million)</th>
<th>Share of Chinese partners (%)</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beijing Jeep (Daimler – Chrysler)</td>
<td>605.21</td>
<td>50</td>
<td>Beijing</td>
</tr>
<tr>
<td>Chang’an – Suzuki</td>
<td>190.85</td>
<td>51</td>
<td>Chongqing</td>
</tr>
<tr>
<td>Dongfeng – Citroen</td>
<td>1201.8</td>
<td>70</td>
<td>Wuhan</td>
</tr>
<tr>
<td>FAW – VW</td>
<td>1857.0</td>
<td>60</td>
<td>Changchun</td>
</tr>
<tr>
<td>Guangzhou – Honda</td>
<td>139.76</td>
<td>50</td>
<td>Guangzhou</td>
</tr>
<tr>
<td>Jinbei – GM</td>
<td>230.0</td>
<td>50</td>
<td>Shenyang</td>
</tr>
<tr>
<td>Nanjing – IVECO</td>
<td>362.7</td>
<td>50</td>
<td>Nanjing</td>
</tr>
<tr>
<td>Shanghai – VW</td>
<td>335.4</td>
<td>50</td>
<td>Shanghai</td>
</tr>
<tr>
<td>Shanghai – GM</td>
<td>1521.0</td>
<td>50</td>
<td>Shanghai</td>
</tr>
<tr>
<td>Chang’an – Ford</td>
<td>98.0</td>
<td>50</td>
<td>Chongqing</td>
</tr>
<tr>
<td>Sichuan – Toyota</td>
<td>67.0</td>
<td>50</td>
<td>Chengdu</td>
</tr>
<tr>
<td>Tianjin – Toyota</td>
<td>100.0</td>
<td>50</td>
<td>Tianjin</td>
</tr>
<tr>
<td>Yueda – Kia (Hyundai)</td>
<td>60.0</td>
<td>70</td>
<td>Yancheng</td>
</tr>
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<td>Nanjing Fiat</td>
<td>362.7</td>
<td>50</td>
<td>Nanjing</td>
</tr>
<tr>
<td>Beijing – Hyundai</td>
<td>400.0</td>
<td>50</td>
<td>Beijing</td>
</tr>
<tr>
<td>Dongfeng – Nissan</td>
<td>2030.0</td>
<td>50</td>
<td>Wuhan and Guangzhou</td>
</tr>
</tbody>
</table>
Figure 5. Network relationships of auto-producing transnational corporations with Chinese firms.
in China, anchored in eight cities (Shanghai, Shenyang, Liuzhou, Yantai, Chongqing, Nanchang, Jingdezhen, and Anshun). GM itself has two joint ventures in China—Shanghai-GM and Jinbei-GM (in Shenyang)—producing cars and off-road vehicles, respectively. Because it is not allowed to have a new joint venture in passenger-vehicle production, GM persuaded its Chinese partner, the Shanghai Automotive Industry Corporation (SAIC), to take over the Liuzhou Automobile Plant—the biggest minivan producer in China. In effect, therefore, GM now has a third joint venture in China (Liuzhou-GM), although this is considered to be an extension of its partnership with SAIC—according to the regulations of the Chinese government. Liuzhou-GM is going to be GM’s minicar-assembly centre in China. Recently, Shanghai-GM, SAIC, and GM together took over a car-assembly plant in Yantai, in Shandong province, which was formerly owned by Daewoo. This, in effect, gives GM a fourth joint venture in China, and GM has moved the production of the Sail model from Shanghai to the plant in Yantai. In addition, GM’s international affiliates, Suzuki, Isuzu, and Fuji Heavy Industry, have five joint ventures in China, producing minicars, minivans, and trucks, respectively (see figure 5).

Toyota represents another case. In the 1980s Toyota refused to invest in China when Chinese firms approached it for partnership—probably because its attention was on American and European markets at that time. In 1998, Toyota established its first
assembly joint venture in China (Chengdu–Toyota), producing light buses and off-road cars (its Coast and Pado models). When it decided to have a car-making plant in China in the late 1990s, Toyota found that TAP in Tianjin was the only candidate left as all the other major Chinese car assemblers already had foreign partners. Although TAP has a technological tie with Toyota, and Toyota and its Japanese-affiliated suppliers have set up a few parts-making joint ventures in Tianjin, the assembler is not strong in China and has received only limited support from the central government. Hence, Toyota approached FAW, which was interested in having a new foreign partner. In order to gain approval from the central government, FAW took over TAP in 2002, and Toyota then had a joint venture with FAW – TAP. Later, Toyota persuaded FAW to take over the Chinese partner of Chengdu–Toyota so that it could set up another car-assembly joint venture. At a cost, Toyota allowed FAW to produce its off-road model the Land Cruiser in Changchun. In 2004, Toyota’s new joint venture in Guangzhou received approval from the Chinese government; it will produce its best-selling model, the Camry.

Thus, as a result of the Chinese government’s joint-venture requirement, auto-producing TNCs are not able to choose Chinese partners and production locations freely—particularly in car assembly. The normal case is that first the Chinese government permits a domestic assembler to seek foreign partners for a joint venture, and TNCs then compete for a chance to break into the Chinese market. Generally, the government has acted as an important player in the negotiations, as it did in the case of BJC (Jim, 1997). Brown (1997) comments that “the repressive [Chinese] government chooses the Western partner and dictates its terms on car-making contracts” (page 17). For TNCs, this is more or less like a bidding process. BJC, SVW, FAW – VW, SAW – Citroen, Shanghai – GM, and Chang’an – Ford are, by and large, such cases. Thus, the locational choices of these TNCs are embedded both in the regulatory framework of the Chinese government and in the existing geography of the automobile industry in China (see Sit and Liu, 2000, for detailed discussion of the geography of China’s automobile industry). In other words, it is a path-dependent—but obligated—form of embeddedness.

Obligated local supply linkages and follow-up of FDI for parts manufacture

The eventual localisation of production is a normal step for auto-producing TNCs in developing countries as it is a rational means of reducing production costs, particularly through exploiting cheap local labour. The willingness of TNCs to undertake localisation, however, depends on a number of factors, such as the quality of local supply industries, the market orientation of the vehicles to be assembled, tariffs and nontariff barriers on imported parts and components, and their strategy of global sourcing. If the local supply industry is below international standards in terms of product quality, auto-producing TNCs are unlikely to be willing to increase local content as this might damage the reputation of their final product. Also, if the assembled vehicle is aimed at the highly protected local market, the TNCs may not have the incentive to build a car to international quality standards.

However, host-country governments always desire high local content so as to stimulate local economic development. In China’s case each of the major assembly joint ventures, from the earliest BJC to the later Shanghai – GM and Chang’an – Ford cases, were required to achieve a high rate of localisation rapidly as a prerequisite for further business development, even though the local supply industry lagged behind international standards and lacked the capability to respond to changes in customer demand. Latecomers (in the late 1990s) have been able to take advantage of an
improved local supply industry and, more recently, the local content requirement has been removed.

Facing the dilemma of low-quality local parts together with strict local content requirements, the early TNC entrants into China either invested further in the parts industry or introduced and encouraged their affiliated suppliers to invest in China to help upgrade the local parts-making industry, that is, effectively to fulfil the obligations of localisation. For example, VW provided its Chinese partners with the necessary technical documents for parts making, and has actively promoted business links between Chinese and German suppliers, though it has not itself invested in parts production in China (Reuvid, 1994, page 613). At present, more than 100 of SVW’s 300 local suppliers are joint ventures, including at least twenty with German companies (see the web page of SVW http://www.csvw.com). For latecomers such as GM and Toyota, it has not been as difficult as it was in the early days to raise local content quickly as their affiliated suppliers have already set up, or are working towards, a local supply industry network within China. Shanghai–GM, for example, purchases from Delphi’s subsidiaries in China wiring harnesses; condensers; heating, cooling, and air-conditioning systems; engine-control modules; batteries; and radios (Gardner, 1997).

In selecting local suppliers, the TNCs tend to give priority to parts-making joint ventures in China. This is mainly because of the need for locally made parts to meet the quality-control standards of the parent TNC. Joint ventures can generally offer international-quality parts as the Chinese partners normally receive technology transfers from their foreign partners. Indeed, in the early 1990s the Chinese government recognised the low standard of the local parts-making industry, and its potentially fatal impact on the localisation of production and on its desire to produce internationally competitive cars. As a consequence, the central authority strongly encouraged inflow of FDI directed towards parts making. In 1995, the Chinese central government identified sixty key parts considered bottlenecks for raising car-production quality, and recommended 170 local producers to foreign companies as candidates for the formation of joint ventures in parts making. This measure caused a round of parts-making FDI inflow in 1994–96 (see figure 1). At present, most of the world-leading parts-making TNCs have invested in China (see table 2, over).

Localisation of production: the case of SVW

We have argued that the establishment of local supply linkages of automobile TNCs in China is mainly the outcome of obligated embeddedness. We use SVW as an example to discuss such embeddedness further, through revealing how the localisation of production has been achieved and examine its spatial impacts in the form of the establishment of relevant local supply networks.

When SVW began to assemble the Santana model from CKD parts in 1985, the CKD plant manufactured 35% (in value) of the total parts and components in-house, including body, press parts, and engines. Of the out-sourced parts and components (around 4100 units), only 2.7% came from local suppliers at the beginning, and the balance came from VW’s international supply network (see web page of SVW). Although VW offered its Chinese partner the production technology for the parts and components it made in Germany, the level of local content of the Santana model rose only very slowly in the first three years because of the low standard of the local supply industry (figure 6, over). In 1988, the Chinese government urged SVW to speed up localisation (see Harwit, 1995). To sustain its business in China, VW established a special group at its Wolfsburg headquarters in Germany to coordinate the localisation of production in SVW, to help in the import of technologies and equipment for potential Chinese suppliers, to introduce its affiliated suppliers to Chinese suppliers
as joint-venture partners, and to help Chinese suppliers to employ retired German experts to solve technological problems. These actions were rewarded by the opening of a second joint venture with FAW in Changchun.

The Shanghai Municipal Government was intensively involved in actions to stimulate localisation. In 1987, the municipal government established a Leadership Group of the Automotive Industry, chaired by the mayor, with a Coordination Office of Localisation under the group. These two organisations took a leading role in coordinating the localisation process from the Chinese side, solving problems related to institutional constraints, and introducing potential Chinese parts producers to the assembly venture. In 1988, the municipal government also established the Shanghai

### Table 2. Major parts making transnational corporations in China.

<table>
<thead>
<tr>
<th>Name of TNC</th>
<th>HQ nation</th>
<th>Major products made in China</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delphi (GM)</td>
<td>USA</td>
<td>drive shafts, environment-management system electric parts, batteries, gears, brake parts, steering parts</td>
</tr>
<tr>
<td>Ford ACG</td>
<td>USA</td>
<td>electronics, instrument panels, radiators, seats, steering wheels, auto glass</td>
</tr>
<tr>
<td>Allied Signal</td>
<td>USA</td>
<td>air conditioning compressors, superchargers</td>
</tr>
<tr>
<td>DANA</td>
<td>USA</td>
<td>filters</td>
</tr>
<tr>
<td>ITT</td>
<td>USA</td>
<td>brakes, antilock braking systems</td>
</tr>
<tr>
<td>TRW</td>
<td>USA</td>
<td>engine valves, electronics, seat belts</td>
</tr>
<tr>
<td>Lear</td>
<td>USA</td>
<td>seats, interior trim parts</td>
</tr>
<tr>
<td>Tenneco</td>
<td>USA</td>
<td>mufflers (silencers)</td>
</tr>
<tr>
<td>Lucas</td>
<td>Britain</td>
<td>brake calliper assemblies, disk brakes</td>
</tr>
<tr>
<td>T&amp;N</td>
<td>Britain</td>
<td>piston rings</td>
</tr>
<tr>
<td>GKN</td>
<td>Britain</td>
<td>universal drive devices</td>
</tr>
<tr>
<td>Bosch</td>
<td>Germany</td>
<td>environment-management systems, electronic fuel injections, diesel spark plugs, steering gear</td>
</tr>
<tr>
<td>ZF</td>
<td>Germany</td>
<td>steering gear</td>
</tr>
<tr>
<td>Valeo</td>
<td>France</td>
<td>generators, starters, wipers, washers</td>
</tr>
<tr>
<td>Nippondenso</td>
<td>Japan</td>
<td>generators, starters, micro motors, wipers, air conditioning</td>
</tr>
<tr>
<td>Aishin Seiki</td>
<td>Japan</td>
<td>engines, fans, clutches, transmissions</td>
</tr>
<tr>
<td>NHK Spring</td>
<td>Japan</td>
<td>springs</td>
</tr>
<tr>
<td>Toyota Gosei</td>
<td>Japan</td>
<td>brake hoses</td>
</tr>
<tr>
<td>Koyo Seiko</td>
<td>Japan</td>
<td>bearings, steering, steering gear</td>
</tr>
</tbody>
</table>

Figure 6. Local content of the Santana model built by Shanghai–VW.
Community of Localisation of Santana, which consisted of 140 suppliers, R&D institutes, and financial institutions (Xie and Wu, 1997). The members of the community enjoyed favourable financial treatment and received access to updated information on domestic and international parts production.

In addition, the Shanghai municipality was permitted by the central government to levy a localisation tax on buyers of the Santana. This was used to support the technological upgrading of SVW’s suppliers and to encourage their concentration in Shanghai. As a result of all these joint efforts by VW and the Shanghai Municipal Government, the local content of the Santana was raised quickly, to 85% by 1994 and 92.9% by 1997 (figure 6). During this period, the number of local suppliers to SVW increased to around 300. Nearly two thirds of the suppliers are located in Shanghai itself, which provides half of SVW’s out-sourced parts and components in terms of value (interviews with SVW managers). This high level of geographical concentration can be attributed to two main factors. First, since the 1980s SVW has partially adopted just-in-time (JIT) delivery, which has encouraged suppliers who were formerly remotely located to set up production in Shanghai (Li and Yeung, 1999). At present, fourteen suppliers have adopted full JIT delivery (interviews with SVW managers). The second factor was the protectionist stance of the Shanghai Municipal Government. Initially, the Shanghai government did not care very much where suppliers were located. However, as the local (China-produced) content rose to more than 80%, the Shanghai Municipal Government started to make efforts to raise the share of Shanghai firms in the supply network in order to increase local employment and tax revenues. In the early 1990s, 26% of SVW’s out-sourced parts came from Shanghai firms; by 2002 the share had risen to about 50%.

Conclusion

The widely held view that states are essentially powerless to influence the investment decisionmaking behaviour of TNCs is misleading. Our central argument in this paper is that, under certain specific conditions, the state can exert a material influence and can ensure that there are positive national and local benefits. To achieve such obligated embeddedness on the part of TNCs, however, the state not only has to have the theoretical capacity to control access to assets within its territory, but also the power actually to determine such access. In other words, ‘strong’ states can be highly effective in the power struggle over investment locations.

The case of the automobile industry in China provides a graphic illustration of this process. There is little doubt that the form, and the geography, of automobile TNC activity in China would have been quite different had the firms had unhindered access and freedom to structure their operations (including their supply relationships) in terms of organising their global production networks optimally. The prospect of gaining access to what is emerging as the world’s largest and fastest-growing consumer market has led to a scramble by automobile producers to enter China. But the Chinese government has exerted virtually complete control over such entry, and has adopted a policy of limiting access for foreign firms, and controlling the form that their involvement can take. Here, therefore, we have the obverse of the usual situation. Whereas, in many cases, TNCs are able to play off one country against another to achieve the best deal, in the Chinese case it is the state whose unique bargaining position has enabled it to play off one TNC against another. As a result, the FDI of automobile-producing TNCs in China shows clear features of obligated embeddedness.

Hence, insofar as China is universally seen in the automobile industry (as in many others) as a ‘must-invest situation’ (EIU, 1997, page 1), the state has been able to control the entry and operation of automobile TNCs to a much greater extent than is
the case in most other parts of the developing world. This largely reflects differences in the kinds of political transformations that have occurred, as well as the sheer magnitude of the Chinese economy and market. In the case of China, a state-controlled political economy—albeit significantly changed and changing—continues to exist and the nature of the integration of foreign capital reflects this. In contrast, in the countries of Eastern Europe there has been a much more fundamental political, as well as economic, transition towards a more neoliberal position. The transitional states of Eastern Europe have overwhelmingly adopted neoliberal market policies, which has considerably reduced their individual bargaining power. But, as Bartlett and Seleny (1998) have argued, the situation is made far more complex by these states’ increasing integration into the EU political system which, they suggest, has at least partially shifted the balance of bargaining power between automobile TNCs and states.

“Western multinationals enjoyed more favourable terms of entry in Eastern Europe than in other capital-importing regions during earlier phases of FDI. The small size, economic weakness, and geopolitical vulnerability of the East European states prompted local officials to offer foreign investors unusually generous tax holidays and profits repatriation allowances. The international economic conditions prevailing at the time of Eastern Europe’s opening further bolstered [multinational corporations] bargaining position. The global ascent of economic liberalism simultaneously lowered national barriers to FDI and intensified bidding for foreign investment among capital-importing countries, allowing Western companies to obtain local-content waivers and other concessions from post-communist governments” (Bartlett and Seleny, 1998, page 320).

However, the increasing political integration of the Eastern European states into the European Union, with its particular regulations on the concessions and incentives that can be granted to TNCs, has enabled those states to retrieve some of their bargaining power. But, as Bartlett and Seleny emphasise, this was only possible because, in effect, the European Union acted as a ‘strong state’. By themselves, the postcommunist Eastern European countries would have been relatively powerless. As it is, their degrees of bargaining freedom should not be overexaggerated. As experience throughout Europe shows, the intensity of competition between states for mobile investment, especially in industries like the automobile industry, places them in a far weaker position than China. There are far more substitute locations within Europe so that potential investors can retain considerable bargaining strength. In the Chinese case this does not apply.

Nevertheless, it seems clear that ‘size matters’. Large individual states or, as in the EU case, organised conglomerations of states, are in a potentially stronger position to bargain with TNCs over access and local performance. But, as we argue in this paper, this is a highly contingent process. The Chinese case is, in many respects, unique. We cannot be sure whether the Chinese state’s ability to shape its automobile industry so strongly can be maintained into the future: already, membership of the WTO has placed certain constraints on the state’s degrees of policy freedom. As yet, however, the balance of bargaining power remains strongly with the state. It will probably remain so for as long as the automobile producers feel impelled to have a direct presence in China and, in effect, have no alternative means of penetrating the Chinese market effectively. In these circumstances, the state holds the balance of power because it controls access to a much sought-after and scarce resource.

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