Placing places in GPNs

Our focus so far has been on the *patterns* and *processes* of global shift: on the *forms* being produced by the globalizing of economic activities and on the *forces* producing those forms. These transformations of the geoeconomy are the outcome of extraordinarily complex processes, involving major changes in the nature of production, distribution and consumption. My central argument in this book is that the reshaping of the global economic map has been driven increasingly by the emergence of extremely complex organizational and geographical networks of
production, distribution and consumption: what we have called global production networks (GPNs). The precise form of such networks – how they are controlled and coordinated, as well as the shape and extent of their specific geographies – varies enormously, as the case studies of Part Three revealed. As we have seen, TNCs operate through a complex mix of intra-organizational and inter-organizational networks: the internalized networks of TNCs themselves, varying from centrally controlled hierarchies to flatter ‘heterarchies’; and the externalized captive, relational and modular networks created through strategic alliances and various kinds of subcontracting and supplier relationships within GPNs.

These complex production networks are grounded in specific places: organizational networks connect into geographical networks. GPNs, therefore, not only integrate firms (and parts of firms) into structures which blur traditional organizational boundaries (for example, through the development of diverse forms of equity and non-equity relationships) but also integrate places (national and local economies) in ways that have enormous implications for their economic development. It is this place dimension that provides the focus of this chapter. The questions posed are those relating to the ways in which a place’s insertion (or non-insertion) into GPNs affects its developmental prospects.

We can think of places, at whatever geographical scale, as having an organizational ecology (Figure 14.1): a mix of firms and parts of firms, large and small, old and new, foreign and domestically owned, connected together through geographically extensive production circuits and networks. The branches and affiliates of TNCs are obviously part of a specific corporate structure and are constrained in their autonomy by parent company policy. The extent to which they are functionally connected into the local economy is enormously variable. But even the ‘independent’ firms in a local economy may, in fact, be rather less independent than they appear at first sight. Many are integrated into the supply networks of larger firms, whose decision-making functions are very distant. Other local firms may be linked together through strategic alliances or they may be a part of the flexible business networks coordinated by key ‘broker’ firms.

Figure 14.1 A place’s ‘organizational ecology’
In this context, four highly interconnected sets of relationships are especially important:

- **intra-firm relationships**: between different parts of a corporate network, as each part strives to maintain or to enhance its position *vis-à-vis* other parts of the organization
- **inter-firm relationships**: between firms belonging to separate, but overlapping, networks as part of customer–supplier transactions and other inter-firm interactions
- **firm–place relationships**: as firms attempt to extract the maximum benefits from the communities in which they are embedded and as communities attempt to derive the maximum benefits from the firms’ local operations
- **place–place relationships**: between places, as each community attempts to capture and retain the investments (and especially the jobs) of the component parts of GPNs.

Each of these sets of relationships is embedded within and across *national/state* political and regulatory systems that help to determine the parameters within which firms and places interact.

The key issue addressed in this chapter, therefore, is the extent to which a place’s involvement in GPNs creates net benefits (or net costs) for its inhabitants. There is a good deal of disagreement about this, as there is about the more specific issue of the impact of TNCs on local and national economies. In that respect, virtually every aspect of TNC operations – economic, political and cultural – has been judged in diametrically opposed ways, depending upon the ideological viewpoint adopted. Thus, TNCs are seen to

- either expand national and local economies or exploit them
- either act as a dynamic force in economic development or have a distorting influence
- either create jobs or destroy them
- either spread new technology or pre-empt its wider use.

Similar polarization of opinion applies to the impact of GPNs. From the viewpoint of particular places, then, are GPNs a ‘good’ thing or a ‘bad’ thing?

[Global production networks] can be seen as opportunity structures for organizational learning on the part of developing countries. Not only can local firms access international markets via such [networks], but the implication is that firms can actively seek to *change* the way that they are linked to global [networks] in order to increase the benefits they derive from participating in them – a process of repositioning that is called upgrading ... [On the other hand] particular strategies to increase the competitiveness of suppliers in global [networks] may look like upgrading from the vantage point of the firm but in fact constitute a form of downgrading for the workers involved.1
Creating, enhancing and capturing value in GPNs

Each stage in a production circuit (Figure 3.3), each node in a global production network, creates value through the combined application of labour skills, process and product technologies, and the organizational expertise involved in coordinating complex production and logistical processes and in marketing and distribution. In this sense, value is a surplus over and above the costs involved in performing the transformations and transactions at that particular stage or node. In the economists’ terminology, it would be called economic rent. By definition, the process is dynamic: the aim is continuously to enhance value – to increase profits and/or to reduce competition – through a whole variety of means: product and process innovation, improved labour productivity, more efficient logistical systems, and so on.

When we turn to value capture the situation is far more complicated. A detailed analysis of the value chain for the production of the Apple iPod shows just how complicated the capture of value can be and also the extent to which the highest-value capture tends to be at the high end of the value chain (design, brand ownership and control) whilst assembly is far less significant in the total value added. Geographically in the case of the iPod, this means that the US captures most of the value even though all iPods are actually manufactured in China (in Taiwanese-controlled factories) and the hard disk drive (the most expensive component) is manufactured by the Japanese firm Toshiba but mostly in factories located in China and the Philippines.

So, the key questions addressed in this chapter are: Who captures the value created within production networks? Who benefits from value creation and enhancement? This raises issues way beyond the narrow confines of firm competitiveness and profitability to encompass all the different stakeholders involved in global production networks in different geographical locations. The key issue is the configuration of power within GPNs which, as we have seen already, tends to be highly asymmetrical and subject to complex bargaining processes. One dimension of this is the relationship between capital and labour. In general over the past few decades, there has been a pronounced shift in which capital has gained massively at the expense of labour, not least because of the increased financialization of all parts of the economy (see Chapter 3). This is shown, for example, in the increased unevenness in the distribution of incomes in many developed economies (Chapter 16). Another dimension is the relationship between lead firms and their multilayered tiers of suppliers: the extent to which lead firms are able to squeeze their first-tier suppliers who, in turn, try to squeeze their suppliers and so on through the entire production network. This is apparent in several of the cases discussed in Part Three.

In this chapter, however, we are concerned with how value within GPNs is created, enhanced and captured in the places – the national and local economies – in
which the component parts are located. In other words, the focus is developmental at the ‘community’ level. To what extent is the value created within GPNs captured for the benefit of the places in which the activities occur? To what extent does participation in global production networks offer the potential to upgrade a place’s economic well-being?

### Upgrading (or downgrading) of local economies within GPNs

The potential effects of GPNs on local economies involve a whole range of complex direct and indirect interactions, as Figures 14.2 and 14.3 show. They are contingent upon the relationships between the nature of the GPN operations themselves and the nature and characteristics of the local economy. In the following sections we focus on four especially important dimensions of a place’s involvement in a GPN: capital injection, local firm stimulus, knowledge diffusion, and local employment creation.

### Injecting capital?

The inflow of capital is the most obvious impact of foreign investment, especially for those countries suffering from capital shortage. TNCs have certainly been responsible for injecting capital into host economies, both developed and developing. But not all new overseas ventures undertaken by TNCs involve the actual transfer of capital into the host economy. One estimate for the 1990s was that around 50 per cent of US foreign direct ‘investment’ was actually raised on host-country capital markets and not imported. Thus, local firms may be bought with local money. Local firms may even be squeezed out of local capital markets by the perceived greater attractiveness of TNCs as an outlet for local savings.

Even where capital inflow does occur there will, eventually, be a reverse flow as the local operation remits earnings and profits back to its parent company. This outflow may, in time, exceed the inflow. A recent analysis of the impact of FDI on the Mexican economy concluded that

> when profit remittances are deducted from gross FDI flows, the economic impact of the resulting ‘net’ FDI capital per worker variable is reduced in magnitude and statistical significance.

Any net financial gain to the host country also depends on the trading practices of the TNC. A host economy’s balance of payments will be improved to the extent that the local plant exports its output and reduced by its propensity to import. A vital issue, therefore, is the extent to which financial ‘leakage’ occurs from host
Figure 14.2 Major dimensions of potential GPN impact on local economies

Nature of the GPN operation
- Mode of entry
  - Establishment of new unit
  - Acquisition of existing firm
  - Joint venture with local firm
  - Use of local firm as supplier
- Function
  - To utilize local resources (including knowledge and skills)
  - To serve host country market (import substitution)
  - To serve export markets (export platform)
- Attributes
  - Industry type
  - Technology
  - Scale of operations
  - Extent of integration within the GPN

Nature of the local economy
- Level of economic development
- Size of the economy
- Resource endowment
- Knowledge and skill base
- Composition of local labour supply
- Social, political, cultural characteristics etc.

Major areas of potential GPN impact
- Capital injection
  - Initial inflow of capital
  - Capital raised locally
  - Cost to local economy of obtaining investment
  - Profits retained locally
  - Profits remitted to parent company
  - Transfer pricing
  - Export/import balance
- Local firm stimulation
  - Integration of local firms into supply network
  - Enhanced roles
  - Spin-off effects
- Knowledge diffusion
  - Extent of knowledge transfer
  - Appropriateness of technology
  - Cost to local economy
- Employment creation
  - Volume of employment
  - Type of employment (skills, gender)
  - Wage levels and recruitment
  - Labour relations
  - Stability

Potential for upgrading within GPNs
- Types of upgrading
  - Process upgrading
  - Product upgrading
  - Functional upgrading
- Obstacles to upgrading
  - Entry barriers
  - Transactional dependencies
  - Distance from lead firms
- Differential effects of upgrading
  - Unequal distribution of gains
  - No necessary increase in wages
  - Displacement of workers
  - Repressive labour regulation

Inter-relationships

Industry type
- Technology
- Scale of operations
- Extent of integration within the GPN
Local labour market effects

Indirect employment

Transfer pricing

Purchase of local site-related services

Payment of local taxes, rates, etc.

Multiplier effects on local economy

Indirect employment

Transfer pricing

Learning effects on local firms
- production technology
- organizational practices
- labour organization

Survival of existing firms

Formation of new firms

Competitive effects on local firms

Direct employment

Size of labour force

Types of labour employed:
- skills, gender
- wage levels
- working conditions
- training
- labour relations
- recruitment policies

Sources of inputs

GEOGRAPHICAL

Overseas:
- Imports

Home:
- Non-local
- Local

ORGANIZATIONAL

Independent company

Parent company

Nature of local operation

Extent of integration within GPN and degree of local autonomy

Function of plant

Technology

Scale of operations

Industry type

Mode of entry

Destinations of outputs

GEOGRAPHICAL

Home:
- Local
- Non-local

Overseas:
- Exports

ORGANIZATIONAL

Parent company

Independent company

Sources of capital

Home:
- Local borrowing
- Capital subsidy, tax concessions from host government

Export to area

Nature of local operation

Reinvested locally

Profits created

Remitted to parent

Multiplier effects on local economy

Figure 14.3 Tracing the direct and indirect connections of a GPN in a local economy
economies through the channel of the TNC. This raises the question of the ability of host-country governments to obtain a ‘fair’ tax yield from foreign-controlled operations whose parent companies are capable of manipulating the terms of their intra-corporate transactions through transfer pricing and tax avoidance (see Chapter 7).

**Stimulating local firms?**

The extent to which local firms may be stimulated by involvement in a GPN depends upon the roles such firms perform and upon whether or not the direct affiliates of TNCs create positive linkages within the local economy. Which level in the supply network do local firms occupy? Are they first-, second- or lower-tier suppliers? What kinds of operations do they perform? What is the skill and technology level involved? If the local operation is a subsidiary of a TNC, what kinds of subsidiary responsibilities does it have?

Inter-firm linkages are the most important channels through which technological change is transmitted. When TNCs place orders with local suppliers for materials or components that must meet stringent specifications, technical expertise is raised. The experience gained in new technologies by local firms enables them to compete more effectively in broader markets, provided, of course, that they are not tied exclusively to a specific customer. The sourcing of materials locally may lead to the emergence of new domestic firms to meet the demand created, thus increasing the pool of local entrepreneurs. The expanded activities of supplying firms, and of ancillary firms involved in such activities as transportation and distribution, will result in the creation of additional employment. But such beneficial spin-off effects will occur only if the foreign affiliates of TNCs do become linked to local firms. Where TNCs do not create such linkages they remain essentially foreign enclaves within a host economy, contributing little other than some direct employment.

As far as local linkages are concerned, the most significant are *backward* or *supply* linkages (Figure 14.3). Here, the crucial issue is the extent to which TNCs either import materials and components or procure them from local suppliers. The actual incidence of local linkage formation by foreign-controlled plants depends upon three major influences:

- *The particular strategy followed by the TNC and the role played by the local operation in that strategy.* TNCs that are strongly vertically integrated at a global scale are less likely to develop local supply linkages than firms with a lower degree of corporate integration. But even where vertical integration is low, the existence of strong links with independent suppliers in the TNC’s home country or elsewhere in the firm’s GPN may inhibit the development of local linkages in the host economy. Familiarity with existing supply relationships may well discourage
the development of new ones, particularly where the latter are perceived to be potentially less reliable or of lower quality. Foreign plants that serve the host market are more likely to develop local supply linkages than export platform plants.

- **The characteristics of the local economy.** In general, we would expect to find denser and more extensive networks of linkages between TNCs and domestic enterprises in developed, compared with developing, economies. Within developing countries such linkages are likely to be greatest in the larger and more industrialized countries than in others. In many developing countries, the existing supplier base is simply not sufficiently developed to meet TNC criteria, that is, the *absorptive capacity* is too low. However, host-country governments may well play a very important role in stimulating local linkages, both by implementing policies to upgrade local suppliers and through local content policies. But much depends on the relative strength of the host country’s bargaining power *vis-à-vis* the TNC. Again, it tends to be in the larger and the more industrialized developing countries that such local content policies have the greatest impact, and also in those TNC activities serving the local market. Indeed, it could be that the export-oriented industrialization strategies of developing countries actually inhibit the development of local supply linkages.

- **Time.** Local supply capabilities do not develop overnight. Particularly in view of the closer relationships between firms and their suppliers (see Chapter 5) it should not be expected that a foreign plant, newly established in a particular host economy, would immediately develop local supplier linkages. Not only do appropriate suppliers have to be identified but also it takes time for supplier firms to ‘tune in’ to a new customer’s needs.

The linkage question is not only a quantitative one. More important than the number of local linkages is their *quality* and the degree to which they involve a beneficial transfer of technology (either production or organizational) to supplier firms. A common criticism is that many TNCs tend to procure only ‘low-level’ inputs from local sources, for example cleaning and maintenance services and the like. This may be because of deliberate company policy to keep to established suppliers of higher-level inputs or because such inputs are simply not available locally (or are perceived not to be so). Where development of higher-level supply linkages occurs there does seem to be a positive effect on supplier firms. Figure 14.4 summarizes the differences between ‘dependent’ and ‘developmental’ linkages. Clearly, from a local economy’s perspective, the aim must be to achieve a linkage structure that is developmental. In this respect, much will depend upon its bargaining power (see Chapter 7).

Empirical evidence of local linkage formation by TNCs presents a very uneven picture. Studies within smaller developing countries, particularly those with a short history of industrial development, tell a fairly uniform story of shallow and
poorly developed supply linkages between local firms and foreign-controlled plants. A common observation is that foreign plants located in export processing zones (EPZs) are particularly unlikely to develop supplier linkages with the wider economy. In the case of the Mexican maquiladora plants, for example, less than 5 per cent of the inputs used are sourced from within Mexico. Additionally, most of those inputs are low-value and low-technology products whose production does little to upgrade the local technological and skill base. In some cases, there may be a considerable amount of local sourcing but with relatively little involvement of genuinely local firms. For example, although the new foreign manufacturing plants established in the Johor region of southern Malaysia ‘are sourcing a large part of their inputs in Johor ... the regional effect is confined to foreign, mainly Japanese and Singaporean, suppliers. As a result, the linkages of the new manufacturing plants are only in part beneficial to the local economy.’ Overall, Japanese firms in the Malaysian electronics industry tend ‘to rely more heavily on relocated suppliers from their home country, supporting the general belief about the effect of Japanese business ties’.

In the electronics industry, sourcing patterns appear to differ significantly by host country. For example, in 2001, foreign affiliates in the colour TV industry in Tijuana, Mexico, sourced about 28 per cent of their inputs locally, of which only a very small proportion (3 per cent) was supplied by Mexican-owned firms ... in Malaysia, locally-procured components by foreign affiliates in the electronics and electrical industries comprised 62 per cent of exports in 1994; the corresponding figure for Thailand was 40 per cent. However, in both countries, the most strategic parts and components were supplied mainly by foreign-owned companies rather than domestic ones.
This latter point is confirmed by a study of 227 Japanese electronics companies operating in 24 countries,\(^{10}\) which found that although local procurement was widespread, such increase in local content did not necessarily involve local suppliers.

Nevertheless, involvement in a GPN may well create opportunities for the enhancement of local businesses. Existing firms may receive a boost to their fortunes or new firms may be created in response to the stimulus of demand for materials or components. The formation of new enterprises may be stimulated through the ‘spin-off’ of managerial staff setting up their own businesses on the basis of experience and skills gained in participation in a GPN.

**Diffusing knowledge?**

GPNs in their operations … disseminate important knowledge to local suppliers in low-cost locations, which could catalyze local capability formation.\(^{11}\)

Simply by locating some of its operations outside its home country, a TNC engages in the geographical transfer of knowledge. In so far as a foreign affiliate employs local labour there will be a degree of knowledge transfer to elements of the local population through training in specific skills and techniques. But the mere existence of a particular technology within a foreign-controlled operation does not guarantee that its benefits will be widely diffused through a host economy. The critical factor here is the extent to which the technology is made available to potential users outside the firm either directly, through linkages with indigenous firms, or indirectly via ‘demonstration effects’.

In fact, the very nature of the TNC inhibits the spread of its proprietary technologies beyond its own organizational boundaries. Such technologies are not lightly handed over to other firms. Control over their use is jealously guarded: the terms under which technologies are transferred are dictated primarily by the TNC itself in the light of its own overall interests. They tend to transfer the results of innovation but not the innovative capabilities – the ‘know-how’ rather than the ‘know-why’. A major tendency, as we saw in Chapter 5, is for TNCs to locate most of their technology-creating activities either in their home country or in the more advanced industrialized, and some of the more advanced newly industrializing, countries. So far, relatively little R&D, other than lower-level support laboratories, has been relocated to developing countries. In some cases this is a direct result of host government pressure on TNCs to establish R&D facilities in return for entry. Such leverage is greatest where the TNC wishes to establish a branch plant to serve the host-country market itself.

The evidence for TNCs transferring technologies beyond a fairly basic level to developing countries is very mixed. A study of the electronics industry in Malaysia, the Philippines and Thailand was fairly positive:
Their [TNCs’] participation has at least produced latent technological capabilities for absorption by local firms ... foreign firms’ participation and the high levels of ... [human resource and process technology] capabilities generated have at least transformed the local environment to facilitate export manufacturing in these countries involving a high-tech industry.\textsuperscript{12}

On the other hand, the conclusions of a study of two Caribbean countries (Trinidad and Tobago and Costa Rica) were more pessimistic:

Despite the attractiveness of both countries to foreign investors, foreign investment has made only a minimal contribution to strengthening local innovation systems in these countries.\textsuperscript{13}

A critical issue, however, is the ability of local firms to actually absorb new knowledge and technologies.

Knowledge transfer ... is not automatic. It requires a significant level of absorptive capacity on the part of local suppliers and a complex process to internalize disseminated knowledge ... Of course, knowledge transfer is not a sufficient condition for effective knowledge diffusion. Diffusion is completed only when transferred knowledge is internalized and translated into the capability of the local suppliers. Much depends on the types of knowledge involved and the mechanisms that [lead firms] use to disseminate different types of knowledge.\textsuperscript{14}

In Chapter 4 we distinguished between two types of knowledge: \textit{codified} (or \textit{explicit}) knowledge, the kinds of knowledge that can be expressed formally in documents, blueprints, software, hardware etc.; and \textit{tacit knowledge}, the deeply personalized knowledge possessed by individuals that is virtually impossible to make explicit and to communicate to others. Codified knowledge can be transmitted relatively easily across distance. Tacit knowledge, on the other hand, has a very steep ‘distance-decay’ curve. It is much more ‘sticky’. Both types of knowledge are essential ingredients in the knowledge diffusion process within GPNs, whether that occurs within the organizational boundaries of a TNC’s internal network or across organizational boundaries to other firms within the GPN. However,

local suppliers can only effectively absorb knowledge disseminated by global network flagships if they have developed their own capabilities. Knowledge internalization and capability building require individual and organizational learning.\textsuperscript{15}

\textbf{Creating good jobs?}

For most ordinary people, as well as for many governments, the most important issue is the effect of GPNs on local jobs:

- Do they create new jobs?
- What kinds of jobs are they?
- Do local firms embedded within GPNs pay higher or lower wages than other, non-GPN firms?
- Do GPN firms operate an acceptable system of labour relations?

In other words, do GPNs create a 'high-road' job scenario, in which the emphasis is on quality, skill and good labour conditions, or a 'low-road' scenario, characterized by low wages, low skills, job insecurity and poor labour conditions?\textsuperscript{16}

**Number of jobs**

The number of jobs created (or displaced) by a GPN operation in a local economy consists of both those created in the operation itself and those created/displaced elsewhere in the local economy (Figure 14.3).

The number of *direct jobs* created in a particular operation depends upon two factors:

- the *scale* of its activities
- the *technological* nature of the operation, particularly on whether it is capital intensive or labour intensive.

The number of *indirect* jobs created also depends upon two major factors:

- the extent of *local linkages* forged with local firms
- the *amount of income generated* by the TNC and *retained* within the local economy. In particular, the wages and salaries of employees and of those in linked firms will, if spent on locally produced goods and services, increase employment elsewhere in the domestic economy (Figure 14.3).

Against the number of local jobs *created* in GPNs we need to set the number of jobs *displaced* by any possible adverse effects on other local enterprises. Hence, the overall employment effect depends upon the balance between job-creating and job-displacing forces. The *net* employment contribution of a GPN to a local economy, or the net jobs (NJ), can therefore be expressed as:

\[
NJ = DJ + IJ - JD
\]

where DJ is the number of direct jobs created locally in the GPN, IJ is the number of indirect local jobs in firms linked to the GPN, and JD is the number of jobs displaced in other local firms.

**Quality of jobs**

The number of jobs created by GPNs in local economies is only part of the story. What kind of jobs are they? Do they provide employment opportunities that are appropriate for the skills and needs of the local labour force? The answer to these questions depends very much on the attributes of the GPN operation (see Figure 14.3).
In particular, where the operation ‘fits’ into the GPN’s overall structure and how much decision-making autonomy it has are key factors. In general, the fact that TNCs tend to concentrate their higher-order decision-making functions and their R&D facilities in the developed economies produces a major geographical bias in the pattern of types of employment at the global scale.

In developing countries, the overwhelming majority of jobs in GPN plants are production jobs. In export processing zones, of course, low-level production jobs, especially for young females, are the rule, although this partly reflects the types of industry that dominate in EPZs. Overall, the proportion of higher-skilled workers employed within GPNs in developing countries has tended to increase over time, as has the proportion of local professional and managerial staff. Such changes have progressed furthest in the more advanced industrializing countries of Asia. For example, the shift of IT activities to India involves more than low-level call centre jobs:

> Anyone who assumes J. P. Morgan will simply be doing low-level ‘back office’ tasks in the country – a bit of data entry and paper-shuffling – would be flat wrong. One task for the new recruits is to settle complex structured-finance and derivative deals, what one insider calls ‘some of the most sophisticated transactions in the world’.

Even so, the GPN labour force in developing countries remains concentrated in low-skill production and assembly occupations. The experience of individual developing countries varies in the extent of TNC-induced labour upgrading, as a study of the TV industry in East Asia shows. In each case, the extent of human capital formation in the industry was very limited prior to the mid 1990s:

- In Malaysia, specialized staff were still foreign but there was significant training by leading firms and for their partners in their regional production networks. There was evidence of rising skill levels and increasing numbers of specialized technical and managerial staff.
- In Mexico, the first signs of upgrading were apparent as a result of significant training efforts and linking with local education institutions, rising labour skill levels, and increasing numbers of specialized technical and managerial staff.
- In Thailand, the skill levels of the labour force were low but rising with increased emphasis on labour training. But there was not much evidence of an increasing involvement of more highly educated specialist staff.

**Wages and salaries**

In so far as TNCs take advantage of geographical differences in prevailing wage rates between countries they do, in fact, ‘exploit’ certain groups of workers. The exploitation of cheap labour in developing countries at the expense of workers in developed countries is one of the major charges levelled at the TNC by labour
unions in Western countries. The general response of TNCs to such allegations is that they do not have complete control over what goes on in independent factories although, in the face of these criticisms, many TNCs are now implementing codes of practice to which their suppliers must conform (see Chapter 17).

However, as far as their directly owned affiliates are concerned, the general consensus seems to be that TNCs generally pay either at or above the ‘going rate’ in the host economy. Figure 14.5 shows two aspects of the wage comparison. First, the relative height of the columns shows that TNCs pay very much more to workers in high-income countries than to those in middle- and low-income countries. This differential reflects a number of factors, including the composition of economic activity, educational and skill levels, cost of living, and so on. Second, although TNCs certainly pay higher wages overall than domestic firms in the same country group (a ratio of 1.5), the pattern varies between country groups: 1.4 in high-income countries, 1.8 in middle-income countries and 2.0 in low-income countries.

TNCs that do pay above the local rate may well ‘cream off’ workers from local firms and possibly threaten their survival. This point relates to the kinds of recruitment policies used by TNCs, which may well mean that employees for a newly established local plant are drawn from existing firms, rather than from the ranks of the unemployed. Another aspect of recruitment, at least in some industries, is the extent to which TNCs recruit particular types of workers to keep labour costs
low. In the textiles, garments and electronics industries, for example, there is a very strong tendency to prefer females to males in assembly processes and, in some cases, to employ members of minority groups as a means of holding down wage costs and for ease of dismissal. But such practices appear to be specific to particular industries and should not necessarily be regarded as universally applicable to all TNCs in all industries.

**Labour relations**

In many developing countries, either labour is weakly organized or labour unions are strictly controlled (or even banned) by the state. Even in developed economies some major TNCs simply do not recognize labour unions in their operations while deregulation of labour markets has become widespread. But most TNCs, however reluctantly, do accept labour unions where national or local circumstances make this difficult to avoid. Whether labour unions are involved or not, the question of the nature of labour relations within TNCs focuses on whether they are ‘good’ or ‘bad’, that is, harmonious or discordant. Some studies suggest that TNCs tend to have better labour relations in their plants than domestic firms; others point to a higher incidence of strikes and internal disputes in TNCs. But it is often difficult to separate out the ‘transnational’ element. In the case of strikes, for example, it may be plant or firm size that is the most important influence rather than nationality of ownership.

One of the most acute concerns of organized labour is that decision-making within TNCs is too remote: that decisions affecting work practices and work conditions, pay and other labour issues are made in some far-distant corporate headquarters which has little understanding or even awareness of local circumstances. Some labour relations decisions are far more centralized than others, either being made at corporate headquarters or requiring its approval. These areas tend to relate to the parent company’s concern to control financial and labour costs. However, there is considerable variation between TNCs in their degree of headquarters’ involvement in labour relations.

The dispersed nature of TNC operations and the tendency towards remoteness in decision-making have made it very difficult for labour unions to organize effectively to counter such issues as plant closure or retrenchment. Two developments, although relatively limited so far, are significant. One is the initiation by global union federations (such the International Confederation of Free Trade Unions – ICFTU) of networks of workers within specific TNCs in an attempt to move industrial relations issues to the global level. The second development has occurred within the European Union:

As part of the social protocol of the 1993 Maastricht Treaty, at least 15 million employees in some 1500 TNCs operating in Europe now have rights to information and consultation on all matters that affect more than one member state … Each company that employs more than 1000 people, of whom at least
Despite such developments, labour unions remain primarily contained within national state boundaries while TNCs are not. This structural difference creates inevitable tensions.

A key issue is the kind of employment contract involved. It is common for firms to differentiate between core workers (employed on secure contracts and with good conditions of employment) and non-core workers (with less secure contracts and fewer fringe benefits and who can be more easily dismissed if the firm wishes to scale down its labour force). Labour force flexibility is a key element in GPNs. Non-core workers are frequently hired through employment and temporary staffing agencies. This kind of problem was graphically illustrated in early 2009 when the German auto company BMW terminated the contracts of 850 agency workers at its UK plant. The workers were given just one week’s notice and no redundancy payments. In contrast, permanent staff would be entitled to receive redundancy payments.

**The other side of the coin: exporting jobs from ‘headquarters countries’**

As TNCs have increasingly established global production networks they have, inevitably, engaged in significant reconfiguration of their home/overseas balance. What are the implications? Does overseas investment adversely affect the home country’s economic welfare by, for example, drawing away investment capital, displacing exports or destroying jobs? Does it represent a ‘hollowing out’ of a local or national economy? Is it an inevitable feature of today’s highly competitive global economy that forces firms to expand overseas in order to remain competitive?

- **Proponents** of overseas investment argue that the overall effects on the domestic economy will be positive, raising the level of exports and of domestic activity to a level above that which would prevail if overseas investment did not occur. Profits from overseas operations will flow back to the home economy, enhancing the firm’s competitive position and making funds available for investment in appropriate activities in the home economy, as well as overseas.
- **Opponents** of overseas investment argue that the major effect will be to divert capital that could have been invested at home and to displace domestic exports. Profits earned overseas will be reinvested in other overseas ventures, rather than in creating new job opportunities at home.
A critical issue is the extent to which domestic investment could realistically be substituted for overseas investment. This raises a whole series of questions:

- What would have happened if the investment had not been made abroad?
- Would that investment have been made at home?
- Would the resources that went into the foreign investment have been used in higher levels of consumption and/or public services?
- What would have been the effect of foreign investment on domestic exports?
- Would the foreign sales of the product of the investment have been filled by exports from the home economy in the absence of the investment?
- Or would they have been taken over by foreign competitors?

It is impossible to say, with any certainty, that overseas investment could equally as well have been made in the firm’s home country. We can make various assumptions about what might have happened, but that is all. Ultimately, the key lies with the motivations that underlie specific investment decisions. As we have seen, firms invest abroad for a whole variety of reasons, for example:

- to gain access to new markets
- to defend positions in existing markets
- to circumvent trade barriers
- to diversify the firm’s production base
- to reduce production costs
- to gain access to specific assets and resources.

It might be argued that foreign investment undertaken for defensive reasons – to protect a firm’s existing markets, for example – is less open to criticism than aggressive overseas investment. The argument in the case of defensive investment would be that, in its absence, the firm would lose its markets and that domestic jobs would be lost anyway. Such investment might be made necessary by the erection of trade barriers by national governments, by their insistence on local production, or by the appearance of competitors in the firm’s international markets. But, presumably, defensive investment might also include the relocation of production to low-wage countries in order to remain competitive. Here, the alternative might be the introduction of automated technology in the domestic plant that would lead to a loss of jobs anyway without any outward investment. Although there may well be some clear-cut cases – particularly where access to markets is obviously threatened or where proximity to a localized material is mandatory – there will inevitably be many instances where there is substantial disagreement over the need to locate overseas rather than at home.

The possible direct employment effects of such overseas investment fall into four categories:
• **Export stimulus effect (XE)**: employment gains from the production of goods for export created by the foreign investment which would not have occurred in the absence of such investment.

• **Home office effect (HE)**: employment gains in non-production categories at the company’s headquarters made necessary by the expansion of overseas activities.

• **Supporting firm effect (SE)**: employment gains in other domestic firms supplying goods and services to the investing firm in connection with its overseas activities.

• **Production displacement effect (DE)**: employment losses arising from the diversion of production to overseas locations and the serving of foreign markets by these overseas plants rather than by home-country plants, that is, the displacement of exports.

Thus, the net employment effect (NE) of overseas investment on the home economy is:

\[
NE = XE + HE + SE – DE
\]

Unfortunately, the data needed to disaggregate employment change into these components are rarely available so that, once again, large assumptions have to be made. That is why the estimates of the numbers of jobs either created or destroyed vary so widely – often by hundreds of thousands.

<table>
<thead>
<tr>
<th>Area of impact</th>
<th>DIRECT</th>
<th>INDIRECT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Positive</td>
<td>Negative</td>
</tr>
<tr>
<td>Quantity</td>
<td>Creates or preserves jobs in home location, e.g. those serving the needs of affiliates abroad.</td>
<td>Relocation or ‘job export’ if foreign affiliates substitute for production at home.</td>
</tr>
<tr>
<td>Quality</td>
<td>Skills are upgraded with higher-value production as industry structures.</td>
<td>‘Give backs’ or lower wages to keep jobs at home.</td>
</tr>
<tr>
<td>Location</td>
<td>Some jobs may depart from the community, but may be replaced by higher-skilled positions, upgrading local labour market conditions.</td>
<td>The ‘export’ of jobs can aggravate regional/local labour market conditions.</td>
</tr>
</tbody>
</table>

**Figure 14.6 The potential effects of outward investment on home country employment**

*Source:* based on UNCTAD *World Investment Report*, 1994: Table IV

Figure 14.6 summarizes the potential positive and negative aspects of both direct and indirect employment effects of outward investment in terms of three attributes: quantity of jobs, quality of jobs and location of jobs. We need to bear in mind that the precise effects of outward investment on home-country employment
are highly contingent on the specific circumstances involved. But even though we cannot put precise numbers on jobs gained or lost through FDI, one thing is clear: the winners and the losers are rarely the same. At one time, it could be said with some accuracy that the dominant losers were production workers while the major gainers were white-collar managerial workers. But such a simple distinction no longer holds, as the recent rapid increase in the outsourcing/offshoring of white-collar jobs has shown. Also, given the complex geography of TNC networks (Chapter 5), it is almost inevitable that jobs created in the home country through outward investment effects (XE, HE, SE in the above formula) will be in different places from those where jobs are lost.

The importance of being there

One main challenge is to use globalization as a lever for local development, by helping local firms and workers take advantage of the opportunities opened up by the global economy. This derives from an awareness that the development of transnational networks of economic activities generates unprecedented possibilities for accessing new markets and resources, acquiring new skills and capabilities and developing international competitive advantage.24

Indeed, the fact that GPNs have become the predominant mode within which production is organized means that it is very difficult indeed for local firms/economies to prosper outside them. Being there – as an insider – is virtually a prerequisite for development. Whether or not a local firm is able to gain entry into a particular GPN depends on the extent to which a GPN is actually accessible.

The openness of a production network can be defined as the ease of entry for both new firms and new locations ... The degree of network openness varies according to industry-specific characteristics and the features of the business systems within which network firms are embedded. Buyer-driven networks in garments and footwear tend to be more open than producer-driven networks in, say, automobiles, mainly as a result of lower entry barriers in the low-skilled, labour-intensive production activities ... [In addition] lead firms in the same industry might exhibit different networking behaviours depending on the idiosyncrasies of their national environments. For example, Japanese electronics companies have been slower than their American counterparts to diversify their supply base and extend the geographical scope of their production networks in East Asia ... Japanese networks also tend to be more socially embedded and less market-oriented than American networks ... The most successful production networks, however, are neither closed nor open but ‘permeable’ ... They are characterized by an evolving tiered structure in which a first-tier of selected, stable partners is surrounded by a more mobile row of second-tier suppliers.25
Gaining access to a GPN may be a necessary step in the short run but in the long run it is not enough. For sustainable developmental benefits to occur it is necessary for a local firm to *upgrade* its performance – to achieve a ‘better’ position within its GPN. Economic upgrading can take a number of forms (Figure 14.2):

- **Process upgrading**: the more efficient transformation of inputs into outputs through improved technology and/or better organization of the production process.
- **Product upgrading**: diversification into more sophisticated, higher-value product lines. This might also involve movement into new sectors using knowledge acquired in one sector (for example, from TV manufacture to computer monitors and related equipment).
- **Functional upgrading**: taking on new functions, that is, moving up the skill ladder.
- **Inter-sectoral upgrading**: ‘using the knowledge gained in particular chain functions to move into different sectors’.27

To these economic forms of upgrading we need to add a fifth:

- **Social upgrading**: which ‘promotes employment based on decent work and respect for labour standards … whilst economic upgrading can enhance international trade performance, it does not automatically lead to social upgrading’.28

One example of an ideal–typical sequence of upgrading has already been mentioned in the case of East Asian clothing firms (see Chapter 10). This involved moving progressively from the simple assembly of imported inputs, through increased local production and sourcing, to the design of products sold under a buyer firm’s label and, finally, to own–brand production.29 However, such a progression is by no means inevitable (Figure 14.2). There are a number of *obstacles* to local industrial upgrading within GPNs:

- ‘Local firms are likely to face substantial entry barriers into the most profitable parts of value chains, nowadays increasingly associated with strategic services such as marketing and R&D. As global networks evolve towards greater functional integration, entry barriers also rise in network positions that previously provided a port of entry into more profitable activities, such as first-tier supplying.’
- ‘Local supply firms face the difficulty of overcoming transactional dependency *vis-à-vis* lead firms … the learning process by which suppliers can evolve towards more complex and remunerative activities involves a phase of high concentration in which lead firms might account for as much as 80 per cent
of suppliers’ revenues. Serving one major customer facilitates the development of trust and the acquisition of specific competences … but also increases suppliers’ vulnerability. The next step for suppliers is thus to diversify their clientele, a phase that requires some degree of standardization of products and production.’

- ‘The advantages provided by geographical proximity in strengthening network relations might impede industrial upgrading in distant locations … Global transactions might thus remain limited to standard arm’s-length exchanges involving few interdependencies between lead firms and their remote suppliers … [however] remoteness from lead firms’ core locations is not an insurmountable obstacle to local industrial upgrading.’

Even if upgrading does occur, there are likely to be differential effects:\textsuperscript{31}

- ‘The gains derived from industrial upgrading may be unequally spread among different groups of workers. Vulnerable groups include “guest workers” imported in response to local labour shortages, as well as workers employed by smaller suppliers and subcontractors that perform lower value-added activities within global networks … Accordingly, upgrading \textit{per se} does not correct the inequalities in employment conditions that are inherent to outsourcing practices. On the contrary, such practices might contribute towards explaining the rising wage inequalities observed in developed and developing countries over the last decades.’

- ‘The value created through industrial upgrading does not seem to be shared with workers under the form of higher wages … higher wage levels appear to depend more on tight local labour market conditions and/or demanding collective agreements and labour laws, than on individual firms’ upgrading strategies. These results underline the role of local institutions in improving employment conditions, in the face of global downward pressures on workers’ wages.’

- ‘Industrial upgrading typically involves some forms of workers’ displacement, either directly, through declining numbers of production workers, or indirectly, through the emergence of new job profiles that make workers’ skills obsolete or less valuable in the local labour market.’

- ‘In a number of countries such as the Republic of Korea, Singapore and Malaysia, the “high road” has been combined with elements of a “low road” including union repression and/or restrictive labour laws.’

In other words, what ‘may look like upgrading from the vantage point of the firm … [may] in fact constitute a form of downgrading for the workers involved.’\textsuperscript{32}

Both the ability of local firms to participate in GPNs and the ability of a local economy to capture value created in those parts of a GPN located there depend, therefore, on far more than just what happens in a firm. The \textit{local context} itself
matters enormously. Figure 14.7 summarizes the kinds of relationships involved in what has been called a ‘strategic coupling’ process.\textsuperscript{33} In effect, this means that to participate in a GPN successfully a local economy needs to develop institutions and practices (including training and education, support for local entrepreneurial activities, development of high-quality physical infrastructure etc.) which meet the needs of GPNs.

Of course, this will not guarantee success in capturing GPN value. As we have seen, TNCs have enormous potential flexibility in deciding where to locate their operations or source their inputs. The relative bargaining power of firms versus local economies is critical (see Chapter 7). This poses a huge dilemma for local economic development in a GPN-dominated world. Not to try to create the ‘right’ conditions to attract GPN activities will, undoubtedly, close off a major avenue for economic development. On the other hand, to try to couple local assets too closely to specific GPNs also has its dangers, not least that of being left stranded if the local operation is relocated elsewhere, or of becoming too tightly locked in.

**The dangers of external dominance**

Whereas the involvement of some foreign activities in a local/national economy will generally have beneficial effects – not only in creating employment but also in introducing new technologies and business practices – overall dominance by foreign firms is almost certainly undesirable. There are real dangers in acquiring the status of a branch plant economy or of being totally at the mercy of shifting
configurations within GPNs. But precisely what constitutes an undesirable level of foreign penetration is open to debate. A high level of dependence on foreign enterprises potentially reduces the host economy’s sovereignty and autonomy – its ability to make its own decisions and to implement them. At the heart of this issue are the different – often conflictual – goals pursued by nation-states on the one hand and TNCs on the other (see Chapter 7). Each is concerned to maximize its own ‘welfare’ (in the broadest sense). Where much of a host country’s economic activity is effectively controlled by foreign firms, non-domestic goals may well become dominant. It may be extremely difficult for the host government to pursue a particular economic policy if it has insufficient leverage over the dominant firms.

The tighter the degree of control exercised by TNCs within their own production networks, and the lower the degree of autonomy of individual plants, the greater this loss of host-country sovereignty is likely to be. In the individual case this may not matter greatly, but where such firms collectively dominate a host economy or a key economic sector it most certainly does matter. The most significant aspect of dependence upon a high level of foreign direct investment is technological: the inability to generate the knowledge, inventions and innovations necessary to generate self-sustaining growth. As we have seen, TNCs have a strong propensity to keep their higher-level R&D, design and decision-making functions close to home. When a domestic firm is taken over by a foreign firm there is, almost inevitably, a loss or downgrading of such functions in the acquired firm. However, this is not to argue that foreign investment should be avoided completely. On the contrary. What should be avoided by host economies is an excessive degree of foreign domination. In other words, ownership still matters. This is an especially vital message for those economies – like the UK – which take a totally laid-back view of the indiscriminate acquisition of domestic firms by foreign firms. Seller beware!

NOTES

1 Bair (2009: 29, 30).
3 Dedrick et al. (2009).
7 Van Grunsven et al. (1995: 3).
8 Linden (2000: 210).
10 Belderbos and Capannelli (2001).
13 Mytelka and Barclay (2004: 553).
14 Ernst and Kim (2002: 2, 6).
15 Ernst and Kim (2002: 8).
17 The Economist (17 December 2005).
18 UNCTAD (2001).
21 See, for example, Coe et al. (2008b).
22 Financial Times (17 February 2009).
23 Hawkins (1972).
26 Humphrey and Schmitz (2002).
27 Neilson and Pritchard (2009: Chapter 8).
28 Barrientos and Gereffi (2009).
32 Bair (2009: 30).
33 Coe et al. (2004).