1. Introduction

The multinationals are firms that operate direct business activities and own assets in at least two countries. The words enterprise, company or corporation are often used instead of firm. The multi- or cross- countries nature of their activities is indicated by the adjective ‘multinational’ or international’ or ‘transnational’. I usually prefer to use the latter adjective because it highlights the fact that these companies strategically plan, organize and control business operations across several countries rather than just operate independently in each of them. Transnational corporations (TNCs) is the term used by the United Nations Conference on Trade and Development (UNCTAD), the official international institution dealing with data, research and a range of publications on these firms.

Transborder direct business activities date back a long time. The Medici bank in Renaissance Florence can be seen as conducting direct financial activities across frontiers well before the birth of the nation-states. Similarly, the British and Dutch chartered trading companies of the seventeenth and eighteen centuries were conducting direct business activities abroad.

However, the real forerunners of the TNC can be traced to the nineteenth century joint stock companies particularly those dealing with the development of railways which involved the organization of resources and control of operations at a distance. The issue of control has been seen as essential for operations spread across territories as first noted in the seminal work by Stephen Hymer (1960) which will be discussed in section five.

The chapter proceeds as follows. The next section deals with the issue of control and its relevance for the TNC. Sections three and four consider the activities and characteristics of TNCs, respectively. Section five presents a summary of the main theoretical approaches to the explanation of TNCs and their activities. Section six addresses the question of why we need a special study of the TNCs. Section seven considers the main key issues in the study of TNCs and the last section summarises.

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1 Nonetheless the various terms will be used interchangeably in this chapter partly to reflect the terminology of the authors under discussion.
2 Regular publications include the annual World Investment Report and the quarterly research journal Transnational Corporations.
2. TNCs and control

Within large companies we can identify two types of control.

- **Ownership control** denotes the percentage of equity stake necessary for controlling an affiliate of a major company. This equity control is a necessary condition for the exercise of general control by the headquarters of the company. The percentage of equity stake necessary for the exercise of control varies from company to company and from sector to sector. In companies where the ownership is concentrated in few owners a higher stake is needed than in companies where ownership is very dispersed. Nonetheless a base line is needed for statistical and classificatory purposes underpinning international, sectoral and micro comparisons. The International Monetary Fund (1977) gives as 10 percent the minimum equity ownership necessary for the foreign affiliate to be considered as part of the controlling interests of the parent company.

- **Organizational control.** This refers to the ability to organize and manage business activities at a distance and is closely connected to the development of the transportation and communication systems. Only fairly developed systems allow a suitable organization and control of activities at a distance and this is why the forerunners of the modern TNCs are traced to the nineteenth century.

The early trading companies were set up under full equity control but could not be organizationally controlled and managed at a distance due to poor communication and transportation systems. The owners had to rely fully on trusted appointed local managers. These early forms of direct business in foreign countries have been classified not as TNCs but as free-standing companies by the historian Mira Wilkins (1988).

It is interesting to note how the internal organizational structure of companies evolved alongside the developments in the activities and geographical scope of companies as well as alongside developments in the technologies and costs of communication and transportation. Following Chandler (1962), Hymer (1970) sees the early single function, single sector company growing and changing organizational structure along several departments distinguished by function (the unitary U-form). This suited companies which were growing larger though still involved in uni-product business. The twentieth century saw the evolution into multi-products firms and a new structure was needed. The multi-divisional form (M-form) emerged with divisions established along product lines. This laid the foundations for the organization of companies that were growing along geographical lines – or over and above – products diversification lines. The TNC could be organized along geographical divisional lines. Products and geography lines could be taken into account simultaneously in the matrix structure developed later.

The last two decades have seen firms outsourcing and developing business activities with a variety of external partners ranging from sub-contractors to suppliers to partners in research, development or production activities. New structures have been developed to take account of
these external networks as well as of networks of affiliates internal to the company. Both
types of networks can be within the same country or can extend to several. The network
company has been more recently analysed particularly in relation to transnational direct
activities (Ghoshal and Bartlett 1990; Forsgren et al. 2005; Forsgren 2008).

3. TNCs’ activities

Business activities across frontiers go a long way back into history: millennia rather than
centuries. However, this does not mean that we can trace back the object of our study in this
chapter as far back as that. For a start the adjective referring to nations and national – be it
international or multinational or transnational – is inappropriate before the existence of nation
states. Moreover, and most important, the nature of operations that defines our companies is
specific. The very early type of business activities across frontiers, the one that goes back
millennia, is trade i.e. import and export. But this type of activity is not what makes a firm a
TNC.

The defining characteristic of the transnational company is direct business activities via
ownership of assets abroad. So a firm must own assets abroad, those assets must be destined
to business activities and the assets must be controlled by the parent company. The
controlling element comes in again in terms of the classification of foreign investment.
Foreign Direct Investment (FDI) in which the company owns at least 10 percent of the
foreign business is seen as part and parcel of TNCs activities and assets. Foreign investment
involving a lower percentage is classified as portfolio investment because it does not give a
controlling interest in the business whose shares have been acquired. Portfolio investment can
also take the form of acquisition of government and non-government bonds. TNCs are often
involved in portfolio investment as well as in FDI which is their defining type of investment.

Worldwide the largest transactions are due to international trade. Imports and exports of
goods and services can be initiated by both uni- and multi-national firms. However, in reality
the vast majority of the world trade is the responsibility of TNCs. Moreover, about one third
of world trade takes place on an intra-firm basis. This means that trade across frontiers takes
place between units belonging to the same company; it can be trade between two affiliates or
between an affiliate and the parent company. So we are talking of trade that is external to
countries but internal to firms. The TNCs are also responsible for much intra-industry trade.
This is the importation and exportation of products belonging to the same industrial
categories by the same country\(^3\). One of the reasons for the large and increasing volume of
intra-industry and intra-firm trade is due to the strategy of international vertical integration
across countries practised by many TNCs. As they located segments of their production
process in many countries they have to move the components from country to country. This
gives rise to international trade that is both intra-firm and intra-industry because the
components belong to the same industrial category.

\(^3\) A full discussion of theories and empirical works is in Grimwade (2000). The concept and measurements were
originally developed in Grubel and Lloyd (1975).
There is another structural feature of international trade for which the TNCs are responsible: the geographical structure. The fact that they are responsible for most world trade and for all intra-firm and most intra-industry trade makes them also responsible for the geographical structure of trade: for which country trades with whom and for what amount. For example the FDI by many western TNCs into China leads to considerable imports and exports by China from/into many countries including the ones which are home to the investing TNCs. Much of this trade is intra-firm and intra-industry. Countries not directly involved in the FDI transaction may also see their trade affected by TNCs’ strategies. For example, following the establishment of the Single European Market many non European companies – specially from the US and Japan – invested in Britain with a view to exporting from Britain to other European countries. The latter were open to trade from Britain but subject to tariffs from outside the US, Japan or other countries.

Other business activities across frontiers include collaborative partnerships such as alliances and joint ventures (Hagedoorn 1996 and 2002) between partners located in different countries. They take also the form of franchising, licensing or subcontracting with companies located abroad. All these forms of *inter-firm partnerships* have been increasing in the last few decades. Most of these take place across national frontiers under the strategic direction of TNCs.

4. The characteristics of transnational companies

In the popular view TNCs are huge, all powerful companies in charge of the world’s destiny. Most TNCs are indeed very large and most large companies operate directly in several countries. However, the last 30 years have seen an increase in the number of smaller TNCs. Their emergence and growth is the effect of improvements in the systems of transportation and communication and of learning and imitation effects. Smaller companies learn from bigger ones. Often they start working with or for the bigger TNCs and learn from them; they then branch out on their own into the international arena.

Worldwide there are currently some 82053 companies classified as TNCs and together they have 807362 affiliates in foreign countries. Most TNCs originate from developed countries (72 percent) though the percentage originating from developing countries has been increasing and is currently 26. The pattern of location of affiliates differs from the pattern of location of headquarters. Some 53 percent of affiliates are located in developing countries with China hosting 35 percent of the total worldwide foreign affiliates.

This pattern is reflected to some extent in the location of foreign direct investment. The largest percentage stock of FDI originates from developed countries and forms their outward FDI (84 percent). Most of this FDI is directed towards other developed countries whose inward FDI stood at 68.5 percent of the total in 2008 against 28.7 in developing countries (table 1). The fact that developing countries host a large percentage of affiliates and a

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4 The data on this section come from UNCTAD (2009) and usually refer to the year 2008 or the latest available at the time.
smaller percentage of inward FDI is an indication that many of the foreign affiliates in developing countries have low capital assets.

Though the developing countries absorb a smaller percentage of inward FDI than the developed countries, the impact on their domestic economies may be bigger. The ratio of stock of inward FDI to GDP stands at 24.5 in 2008 for the developed countries and at 24.8 for the developing ones.

The historical pattern of inward FDI is of interest for its connection to the sectoral pattern of involvement by TNCs. Table 1 gives the evolution in the percentage of stock of inward FDI between developed, developing and Central and Eastern European (CEE) countries for selected years in the last 95 years. The years before the Second World War saw the developing countries absorbing the highest percentage of FDI: over 60 percent. This was due to the fact that most FDI at the time was by companies seeking raw materials resources abroad, in developing countries. After WWII we saw a big increase in TNCs operating in manufacturing and this led to increase in the share of FDI in developed countries.

The last few decades have seen growth in the share of inward FDI into developing countries as more manufacturing and services production is located into these regions. These decades have also seen a transformation in the strategies of TNCs leading to closer integration of the economies of developed and developing countries via the TNCs’ strategies of international vertically integrated production. The development of the ICTs have made it possible to design production processes split in segments according to the type of labour and other resources necessary to produce the relevant component. The production of the different components is then located in different countries according to the local availability of skills and the local cost of labour: those requiring skilled labour are located in developed countries and those requiring unskilled cheap labour and/or specific raw materials are located in developing countries. These cost minimization strategies have led to closer integration between countries as well as to some disintegration of the production process. They also have consequences for the structure of world trade and in particular for the growth of intra-firm and intra-industry trade as discussed in section three.

So far we have analysed FDI as if it automatically leads to capital formation in the host country. In reality things are a little more complicated. A TNC can invest in a foreign country – be it developed or developing – in two ways: (a) by setting up a new factory and business where none existed before (greenfield investment)\(^5\); or (b) by acquiring an existing business/factory (investment via mergers and acquisitions – M&As\(^6\)). Both modalities of FDI result in the generation of new productive capacity for the company. However, only the first one – greenfield – leads to the creation of new productive capacity for the host country. This has considerable impact on the employment effects in the host country. Greenfield

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\(^5\) The term brownfield investment is used to refer to investment on a site where old/disused capacity existed.

\(^6\) More on M&As in Part six of this volume.
investment leads to positive employment effects while M&As do not. In fact, following restructuring of the acquired business some jobs may well be lost in the short to medium term. Productivity may increase due to cut in jobs and also due to new organizational methods introduced by the TNC. In the longer term the TNC may increase capacity in the acquired business or it may reduce it depending on its strategies worldwide.

The TNCs are employing 77 million people worldwide. The number of people directly employed by TNCs has been decreasing not because of a diminished relevance of TNCs whose number worldwide has been increasing. The decrease in employment is likely to be due to the fact that in the last 30 years companies and TNCs worldwide have been following outsourcing strategies: they are contracting out segments of the production process. This is likely to lead to a reduction of employment for which they are directly responsible. However, the suppliers of components are usually under the strategic control of the larger companies/TNCs. In fact, one of the possible reasons for outsourcing is shedding responsibility and fixed costs for sections of labour force while retaining control of production (Ietto-Gillies 2005: ch.15).

5. The economics of the transnational company

The years after WWII saw major developments in the TNC and in FDI. There was a big increase in foreign direct investment originating mainly from the US and directed towards Europe – particularly the UK - Canada and South America. This went hand-in-hand with a sectoral change in FDI which moved from the primary to the secondary sector as we saw in the previous section.

These developments brought in interest on the part of a few economists. Prior to WWII there was no theory of foreign direct investment, indeed the term had not yet been introduced. Studies of investment activities abroad were made under the broad category of foreign investment with no distinction between those investments made for portfolio/speculative reasons and those made to gain control over production activities. The explanation for foreign investment did not touch on the theory of the firm and was along purely neo-classical lines in which differentials in interest rates played the major role in the explanation of movements of funds from country to country.

It fell to two economists from countries at the receiving end of US FDI to try to understand what was going on by analysing the firms rather than the movements of funds. John Dunning in the UK was puzzled by the differentials in productivity between British firms and affiliates of US firms operating in Britain in the same sectors.

But it was a young Canadian economist working on his doctoral thesis at the Massachussets Institute of Technology (MIT) who started the ambitious project of developing a full theory – the first ever – of the international firm. His thesis was completed in 1960 but not published till 1976 after his premature death in a car accident. Stephen Hymer’s work was path

7 All the theories sketched in this section as well as others are discussed and analysed in Ietto-Gillies (2005: Parts II and III). For a summary of theoretical approaches see also Cantwell (2000).
breaking in a variety of dimensions. It introduced the distinction between portfolio and direct investment leading to the analysis of the two types of control we discussed in section two. Moreover, it gave the first theory of why firms invest abroad and become ‘international firms’. His approach was based mainly on looking at the industry’s structural imperfections and at the firm’s desire to use its existing advantages over rivals to increase its market power by investing abroad.

Hymer’s work was seminal and gave life to a variety of interpretations and refinements of his own theory as well as to the possibility of new theories. The following two breakthroughs led to the realization that new theoretical approaches were needed: (1) the distinction between the two different types of foreign investment; and (2) the realization that the standard theory of the firm could not explain international production activities of firms.

From then on several theories were developed. The first in historical terms was published by Raymond Vernon (1966) not long after Hymer completed his thesis. Vernon was working at the Harvard Business School just up the road from where Hymer had been a student. His ‘International Product Life Cycle’ theory concentrated on the product rather than the firm as a whole. Product innovation is taken as a starting point for a theory that is highly dynamic since it involves changes through time in: (a) the geographical structure of trade and production; (b) the competitive position of the company and the product; and (c) the comparative position of countries. Both developed and developing countries become involved as the product moves from one group of countries to the other in terms of production location and/or trade. This has been a highly successful theory but it has also been much criticized. A very perceptive critique is by Vernon himself (1979) and a more recent one by Cantwell (1995).

After that two major contributions were made on the European side of the Atlantic. A group of economists were working on the multinational firm at Reading University in the UK. Peter Buckley and Mark Casson developed a theory of the multinational enterprise by focusing on the organization of activities internally or externally to the firm: the internalization theory of the multinational enterprise. They built on previous developments in the theory of the firm specifically Coase (1937) influential paper on why firms exist at all and why are not their activities taken over completely by market transactions. His explanation emphasised the role of transaction costs of operating in the market. This explanation was to prove seminal in a variety of applications to the theory of the firm, organization and markets (see Part II of this book). The first major contribution came from Oliver Williamson (1975 and 1981). Applications to the multinational enterprise were being made around the same time by McManus (1972), Buckley and Casson (1976) and Dunning (1977 and 1980).

Dunning broadened the scope of the internalization theory by adding to the organizational issues – and thus to transactional imperfections - others related to firm’s specific advantages – and therefore to market imperfections as considered by Hymer – and others specific to the locality where investment is to take place. Both the internalization and Dunning’s theories

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As far as I know Vernon was not aware of Hymer’s work which had not yet been published.
have been hugely successful and the next two chapters in this volume are fully devoted to them. These are also the theories taken as the basis for more recent developments in more main stream literature. Several economists at both sides of the Atlantic have developed a theory of the MNC in the context of general equilibrium analysis taking as starting points the existence of transaction costs and internalization advantages as well as firms’ ownership advantages. Their theory is known as ‘New Trade Theory of the MNC’ (Helpman 1984 and 1985; Helpman and Krugman 1985; Markusen, 1984, 1995 and 1998).\(^9\) because it uses assumptions and maximization techniques based on increasing returns as in ‘New Trade Theory’, (Krugman 1985; 1991a, 1991b and 1998).

Other interesting and successful theories are the following. First, an approach developed by the Scandinavian School which focuses on the stages in the internationalization process (Johanson and Wiedersheim-Paul 1975; Johanson and Vahlne 1977 and 1990\(^{10}\)). The authors see an ‘establishment chain’ in internationalization. It starts with exports by agents and then moves on to the setting up of sales subsidiaries and finally to local production subsidiaries. This is a very dynamic approach which analyses time sequences and developments of the firm and its internationalization strategies over time.

Another dynamic approach builds on developments in the theory of the firm (Penrose, 1959) and specifically on the evolutionary theory of the firm in Nelson and Winter (1982)\(^{11}\). The emphasis is on the firm as locus of social knowledge (Kogut and Zander 1993) and of technological innovation (Cantwell 1989). There is interaction between knowledge and innovation developments, firm’s advantages, location advantages and internationalization strategies.

One of the latest approaches developed is based on recent developments in the organization of production and the firm. In section three I mentioned briefly the trend towards outsourcing of some of the firms’ activities. The outsourcing is often done in such a way as to allow the principal firm – usually the large TNC – to retain strategic control over the product and production process. Cowling and Sugden (1998: 67) view of the scope of the firm as ‘not primarily about a set of transactions’…but ‘primarily about strategic decision-making’. The outsourcing strategies involve the firm into a series of networks with suppliers and distributors. Other networks are developed with customers. There are also the very important networks of affiliates which are internal to the firm and – in the case of foreign affiliates – are external to the home country. Thus several contributors see the major development in the TNC in the last two decades as being the so-called network firm. Theories about its motivations and effects have been developed by several authors largely, but not entirely working on management and organization (Forsgren 2008).

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\(^{10}\) Some of these papers have been reprinted in Buckley and Ghauri (1999).

\(^{11}\) See Part 4 of this volume.
6. Why a special study of the TNCs?12

The previous section gives a flavour of the main approaches developed to explain the TNC, its activities and organization. Prior to WWII economists did not see the need to have a special theory for firms operating across frontiers. This was mainly due to the fact that the number and activities of such firms were not very large. After WWII the number and activities increased and with this came developments of specific theories designed to explain direct business activities across frontiers.

It is now time to pause and ask ourselves why direct activities across national borders need special explanations. After all direct business activities across regions of the same nation-state are not the subject of special theories even when the country is very large and has many regions/states like the US. We do not see the need to develop theories of why a firm located in England invests in Northern Ireland or Scotland or why a firm located in Texas invests in Michigan or one located in Piemonte invests in Sicily. In seeking explanations for such patterns we work within theories of the firm and or investment in general coupled with location theory. But we do see the need for special theories when firms operate across national frontiers. Why? What is special about national frontiers? Is it a matter of geographical distance? Or of cultural distance? Not quite. Distance tends to be higher between locations of different nation-states but this is not always the case. Cities near national borders may be closer in distance and indeed in culture to location in a nearby nation state than to location within the same nation-state. Milan is closer in geographical distance and probably culture to Geneva than it is to Bari or Palermo.

National borders delimit nation-states as geographical territories and also as loci of regulatory regimes in relation to a variety of elements. Specifically relevant to business are the regulatory regimes related to: (a) currency regimes; (b) fiscal regimes; and (c) labour and social security regimes. They encompass all the laws, customs and regulations related to these three areas. The regulatory regimes for these three areas tend to be more uniform – though not completely uniform – between regions of the same state than between different nation states.

The divergence between regulatory regimes across nation-states allows TNCs to develop location strategies that maximize their returns. It is the differentials in fiscal regimes that allows TNCs to develop strategies of location and movements of components leading to manipulation of transfer prices which minimizes the overall tax liabilities for the company as a whole.

A company that locates the production of segments of the value chain in various countries will have to move the components from country to country for further processing and eventually for placement into the final market. These movements take place across national frontiers but are internal to the firm giving rise to intra-firm trade as discussed in section

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12 The issues in this section are further developed in Ietto-Gillies (2005: ch.15).
three. The movements internal to the company could be material goods or services; for example, the services of managers exchanged between affiliates or headquarters and affiliates. The unit of the firm who supplies the component or service will invoice the unit of destination located in a different country. If the two countries have different tax rates it will be in the interest of the company as a whole for the invoice to be priced in such a way that most profits are declared in the country with the lowest tax rate. Thus location strategies, intra-firm trade strategies and pricing strategies can be coordinated to minimize the fiscal liabilities of companies that operate across national frontiers. Similar strategies could be applied between regions of the same nation state if the tax regimes differ. However, in this case, the tax regimes are more likely to be uniform; moreover the company is more likely to be found out. The practice of manipulation of transfer prices is, in fact, illegal but known to be widely practiced. It is difficult for governments’ revenue departments to monitor the processes and query the set prices for internal transfers because many components and services do not have clear equivalents on the market.

Another area in which differentials in regulatory regimes is of benefit to companies working across frontiers and thus across loci of different regulatory regimes, is labour and social security regimes. Companies can devise strategies to benefit from using different labour and its skills in various countries according to the cost of labour. Moreover, labour force working for the same company but located in different countries is spatially and socially fragmented. It therefore finds it more difficult to organise and bargain together with management. This is in contrast with the TNCs that can plan, organize and control across national frontiers. Thus the TNCs have advantages towards their fragmented labour force and they can exploit them strategically for their own benefit.

It is interesting to note that the Confederation of British Industry has always opposed uniformity of fiscal and labour regimes within the European Union though they have welcomed the enlargement of markets and the abolition of obstacles to the movements of goods and services. Successive British governments have obliged.

The discussions in this section point to the relevance of strategic behaviour for TNCs. This means that the explanations of TNCs motivation, activities and location patterns have to take account of strategic and not just efficiency elements. Strategies towards rival firms have often been incorporated into theories of the TNC starting with Hymer and – to some extent Dunning – as well as others not considered above\textsuperscript{13}. However, strategic behaviour can be applied by companies also to labour and to governments. And this is where the TNCs have an advantage over companies that operate within national-frontiers only. It is the existence of different regulatory regimes across different nation-states that allows them to develop strategies designed to maximize their returns from operating in different countries\textsuperscript{14}. It is thus the existence of different nation-states with their specific regulatory regimes that makes it necessary to develop specific theories of the TNCs.

\textsuperscript{13} See in particular Knickerbocker (1973) and Cowling and Sugden (1987)
\textsuperscript{14} A theory of international production that emphasizes strategic behaviour towards labour and governments is developed in Ietto-Gillies (2005: ch. 15).
7. **Key issues in the study of TNCs.**

The activities of transnational corporations raise many issues for society, the economy and for economists. Many such issues have been touched here and there in the previous sections either when discussing developments, activities and characteristics or when introducing some of the theories. I shall here mention some of the issues raised at the level of companies, industries and macro economies. The theoretical approaches – including those considered in section five – touch on some of the following issues.

At the company level the major issues are concerned with strategies in relation to the following.

- Diversification by product and/or geography
- Internationalization versus externalization of activities and related issue of local production versus production at home with servicing of foreign markets via exports.
- Collaborations with external firms as suppliers, distributors, licencees, franchisees, or partners in research, and/or product development.
- Strategies of international vertical integration across countries
- Competitive strategies
- Strategies towards labour and governments in various countries.
- Greenfield versus Mergers and Acquisitions type of investment: their comparative impact on the company’s profitability and competitiveness.

At the level of sectors the following seem relevant.

- Impact of the activities of large TNCs on market structure and on smaller firms
- Impact on the market structure of investment via greenfield or via M&As.
- Is the market characterized by follow-the-leader strategies regarding pricing, product innovation and location of FDI\(^{15}\)?

At the macro level there are many effects and issues including the following.

- Effects of TNCs activities and strategies on: trade, balance of payments, employment, labour relations, government revenue (Barba Navaretti and Venables 2004; Ietto-Gillies 2005: Part IV).

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\(^{15}\) On the latter see Knickerbocker (1973) and Graham (1978 and 1990)
• Effects on the spreading of knowledge and innovation across countries and industries (Cantwell 1989; Castellani and Zanfei 2002 and 2006; Frenz and Ietto-Gillies 2007 and 2009).

• Effects on cross countries integration particularly across developed and developing countries.

• Role of TNCs in the globalization process (Ietto-Gillies, 2002: ch 9 and 2010)

• TNCs and political power.

These issues involve both theoretical and empirical elements and on both fronts much research is still needed.

8. **Summary**

This chapter started by introducing the multinational company in its historical development. The issue of control is then discussed. Sections three and four are devoted to discussions on the range of activities of TNCs and on their evolving characteristics. The chapter then gives a summary of most of the theories developed in the last 50 years since the completion of the work by Stephen Hymer in which he developed the first theory of ‘international operations of national firms’. The theories are discussed in historical sequence and they are very briefly commented on.

The chapter goes on to tackle the question as to why we need special theories of the transnational companies. The search for an answer in section six links the need for theories to the strategic behaviour of TNCs and the opportunities for strategic behaviour offered by the existence of different regulatory regimes in different nation-states. Finally the work presents a list of issues - at the micro, meso and macro levels - in which empirical and theoretical studies are still very much needed.

**References**


