14 Economic transition

14.1 National development

Employment structure and its role in economic development

In HICs and an increasing number of MICs and LICs, people do hundreds of different jobs. All of these jobs can be placed into four broad employment sectors:

- The **primary sector** produces raw materials from the land and the sea. Farming, fishing, forestry, mining, quarrying and fishing make up most of the jobs in this sector. Some primary products are sold directly to the consumer but most go to secondary industries for processing.
- The **secondary sector** manufactures primary materials into finished products (Figure 14.1). Activities in this sector include the production of processed food, furniture and motor vehicles. Secondary products are classed either as **consumer goods** (produced for sale to the public) or **capital goods** (produced for sale to other industries).
- The **tertiary sector** provides services to businesses and to people. Retail employees, drivers, architects, teachers and nurses are examples of jobs in this sector.
- The **quaternary sector** uses high technology to provide information and expertise. Research and development is an important part of this sector. Jobs in this sector include aerospace engineers, research scientists, computer scientists and biotechnology workers. Quaternary industries have only been recognised as a separate group since the late 1960s. Before then, jobs now classed as quaternary were placed in either the secondary or tertiary sectors depending on whether a tangible product was produced or not. However, even today much of the available information on employment does not consider the quaternary sector.

Figure 14.1 Large footwear factory in Vietnam – the secondary sector of employment

The **product chain**, which considers the full sequence of activities needed to turn raw materials into a finished product, can be used to illustrate the four sectors of employment. The food industry provides a good example (Figure 14.2). Some companies are involved in all four stages of the food product chain. Research and development (the quaternary sector) can improve the performance of all the other three sectors.

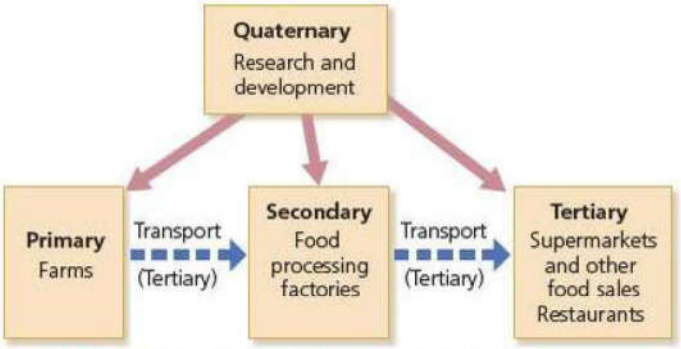
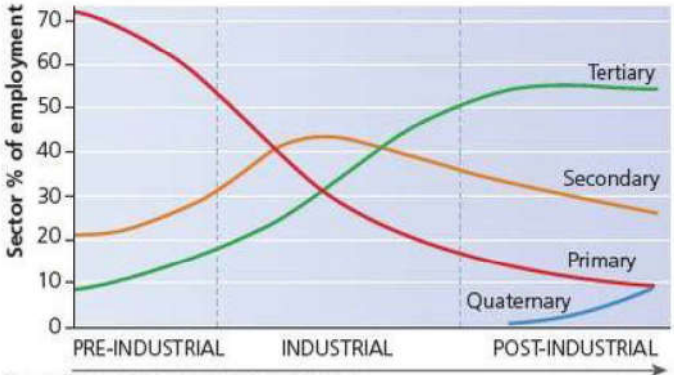


Figure 14.2 The food industry's product chain

How employment structures have changed over time

As an economy advances, the proportion of people employed in each sector changes (Figure 14.3). Countries such as the UK and the USA are 'post-industrial societies', where most people work in the tertiary sector. Yet in 1900, as much as 40per cent of employment in the USA was in the primary sector. However, the mechanisation of farming, mining, forestry and fishing drastically reduced the demand for labour in these industries. As these jobs disappeared, people moved to urban areas where jobs in the secondary and tertiary sectors were expanding. Less than 4per cent of employment in the USA is now in the primary sector.



Source: *Advanced Geography: Concepts & Cases* by P. Guinness & G. Nagle (Hodder Education, 1999), p.142

Figure 14.3 The sector model

Human labour has been replaced in manufacturing too. In more and more factories, robots and other advanced machinery handle assembly-line jobs that once employed large numbers of people. Also, many manufacturing jobs once done in America are now done in NICs. In 1950, the same number of Americans were employed in the secondary and tertiary sectors. By 1980, two-thirds were working in services. Today, 78per cent of Americans work in the tertiary sector.

The tertiary sector is also changing. In banking, insurance and many other types of business, computer networks have reduced the number of people required. But elsewhere, service employment is rising, such as in health, education and tourism.

How employment structures vary between LICs, MICs and HICs

Low-income countries

People in the poorest countries of the world (LICs) are heavily dependent on the primary sector for employment. This is especially so in the least developed countries (LDCs). Most of these people work in agriculture and many are **subsistence farmers**. In some densely populated areas where the amount of land is very limited, there will not be enough work available for everyone to work a full week. The work available is often shared and people are said to be **underemployed**.

In some regions of LICs, mining, quarrying, forestry or fishing may dominate the economy. Work in mining in LICs is often better paid than jobs elsewhere in the primary sector, but the working conditions are often very harsh. In poor countries, higher-paid jobs in the secondary, tertiary and quaternary sectors are usually very few in number. The tertiary jobs that are available are often in the public sector. Public-sector jobs such as teaching, nursing and refuse collection are paid by the government. However, wages in these jobs are usually low as the funds available to the governments of LICs are very limited. In some poor countries, salaries may not be paid on time due to a lack of government funds.

Many of the world's poorest countries are primary-product dependent, meaning that they rely on one or a small number of primary products for most of their export earnings. This makes them very vulnerable to changes in world markets. For example, if a country relies on coffee for most of its export earnings and the price of coffee falls substantially, that country will have far less money to pay for the imports it needs and less to invest in health, education and other important aspects affecting the quality of life of its people. Examples of primary-product dependency include:

- Primary products comprised 79 per cent of exports of the Pacific Island states in 2010.
- 80per cent of Chad's total employment is in agriculture.
- Oil accounts for 97per cent of the value of Angola's exports.

Middle-income countries

In MICs, employment in manufacturing has increased rapidly in recent decades. MICs have reached the stage of development where they attract **foreign direct investment (FDI)** from transnational corporations (TNCs) in both the manufacturing and service sectors. For most MICs, manufacturing industry has been the bedrock for exports and development, but there has been another way. In India, for example, the service sector has done much to lead economic development. The business environment in MICs is such that they also develop their own domestic companies. Such companies usually start in a small way, but some go on to reach a considerable size. Both processes create employment in manufacturing and services.

The increasing wealth of MICs allows for greater investment in agriculture. This includes mechanisation, which results in a falling demand for labour on the land. So, as employment in the secondary and tertiary sectors rises, employment in the primary sector falls. Eventually, MICs may become so advanced that the quaternary sector begins to develop. Examples of MICs where this has happened are South Korea, Singapore and Taiwan.

High-income countries

Developed countries (HICs) are often referred to as **post-industrial societies** because far fewer people are now employed in manufacturing industries than in the past. Most people work in the tertiary sector, with an increasing number in the quaternary sector. Jobs in manufacturing industries have fallen for two reasons:

- Many manufacturing industries have moved to take advantage of lower costs in MICs and LICs. Cheaper labour is often the main attraction, but many other costs are also lower.
- Investment in robotics and other advanced technology has replaced much human labour in many manufacturing industries that remain in HICs.

Table 14.1 compares the employment structure of a HIC, a MIC and a LIC.

A graphical method often used to compare the employment structure of a large number of countries is the triangular graph (Figure 14.4). One side (axis) of the triangle is used to show the data for each of the primary, secondary and tertiary sectors. Each axis is scaled from 0 to 100 per cent. The indicators on the graph show how the data for the UK can be read.

Table 14.1 Employment structure of a HIC, a MIC and a LIC

Country	% primary	% secondary	% tertiary
UK (HIC)	1	17	82
China (MIC)	43	25	32
Bangladesh (LIC)	63	11	26

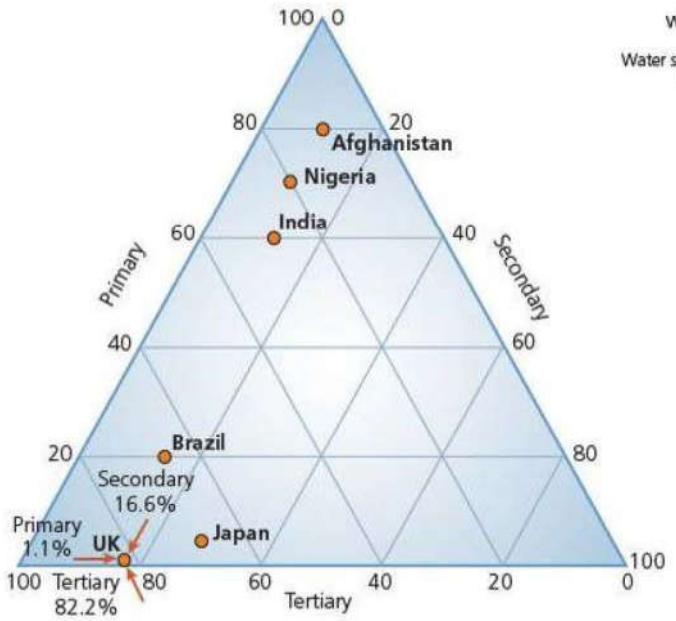
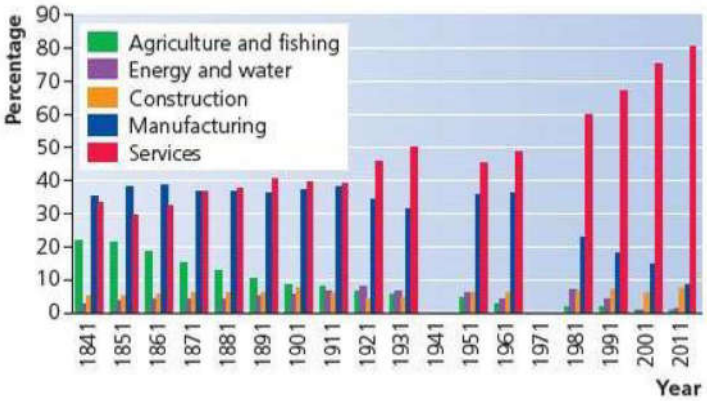


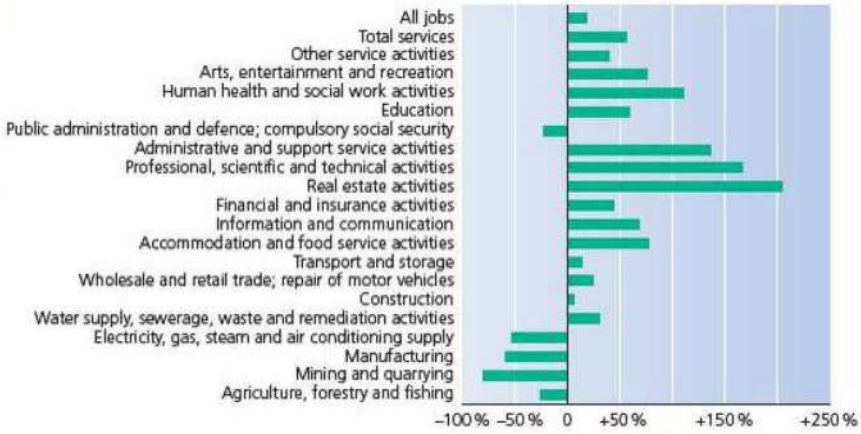
Figure 14.4 Triangular graph showing the employment structure of six countries

Figure 14.5 illustrates changes in the composition of employment in the UK between 1841 and 2011. Today, the service sector dominates total employment, with very few workers now employed in the primary sector. Most HICs have followed a broadly similar path. Figure 14.6 focuses on changes between 1978 and 2013. The decline in the primary and secondary sectors is clear to see. Employment in the service sector in general increased by about 60 per cent, although the rate of increase varies considerably within the service sector itself!



Source: Office for National Statistics

Figure 14.5 Changing employment structure in the UK, 1841–2011



Source: Office for National Statistics

Figure 14.6 The UK – change in jobs by industry, 1978–2013

Outsourcing

A major change in employment has been the increase in **outsourcing**. Companies do this to save money. Work can be outsourced to companies in the same country or it can go abroad where labour and other costs are much lower. For example, many British and American companies have outsourced their call centres to India. It has been the revolution in information and communications technology that has enabled outsourcing to develop so rapidly into a major global industry. As higher-level ICT has spread down the global economic hierarchy from core to periphery, more and more countries have been competing for this valuable business.

Employment structure: the future

The nature of work in HICs has changed markedly over the last 50 years. It will continue to change in the future as the process of globalisation continues. The key questions are:

- Will even fewer people work in the primary sector and which tasks will be performed by those who remain?
- How much further will manufacturing employment fall and which products will HICs still produce?
- Which service sector jobs will decline and which will increase in importance?
- Which totally new services will begin to provide employment in the future?
- How many people will be unemployed at various stages in the future and what status and standard of living will they have?
- What changes will occur in **a** the working week, **b** paid holidays, **c** retirement age, **d** pensions, **e** the school leaving age, **f** working conditions and **g** the location of employment?
- What control will national governments have over these issues?

Employment is one of the most important factors in most people's lives. It is the income from employment that influences so many aspects of an individual's quality of life. The world of 2025 is likely to be very different from its present state.

With further advances in ICT, there will be a greater opportunity for more people to work from home. This is often referred to as teleworking. ICT will allow many people to perform the same tasks from home that they now do in their office. However, a decade ago it was thought that higher technology home working would be more important now than it has actually turned out to be. It seems that the physical clustering of people in organisations has proved more difficult to break down than many commentators thought.

It seems likely that international commuting and employment migration (geographical mobility) will increase as economic and psychological barriers to movement recede. The degree of occupational mobility should also increase as the pace of change quickens.

Section 14.1 Activities

1. Explain the product chain illustrated by Figure 14.2.
2. Why does the primary sector dominate employment in the poorest countries of the world?
3. On a copy of Figure 14.4, plot the positions of China and Bangladesh using the data in Table 14.1.
4. Explain the changes shown in Figure 14.3.
5. Why does outsourcing occur on such a large scale?
6. Discuss the changes that are likely to occur in employment in the future, in the country in which you live.

Global inequalities in social and economic well-being

Development and its traditional income measures

Development, or improvement in the quality of life, is a wide-ranging concept. It includes wealth, but it includes other important aspects of our lives too. For example, many people would consider good health to be more important than wealth. People who live in countries that are not democracies, where freedom of speech cannot be taken for granted, often envy those who do live in democratic countries. Development occurs when there are improvements to individual factors making up the quality of life. Figure 14.7 shows one view of the factors that comprise the quality of life (Figure 14.8). For example, development occurs in a LIC when:

- the local food supply improves due to investment in machinery and fertilisers
- the electricity grid extends outwards from the main urban areas to rural areas
- a new road or railway improves the accessibility of a remote province
- levels of literacy improve throughout the country.

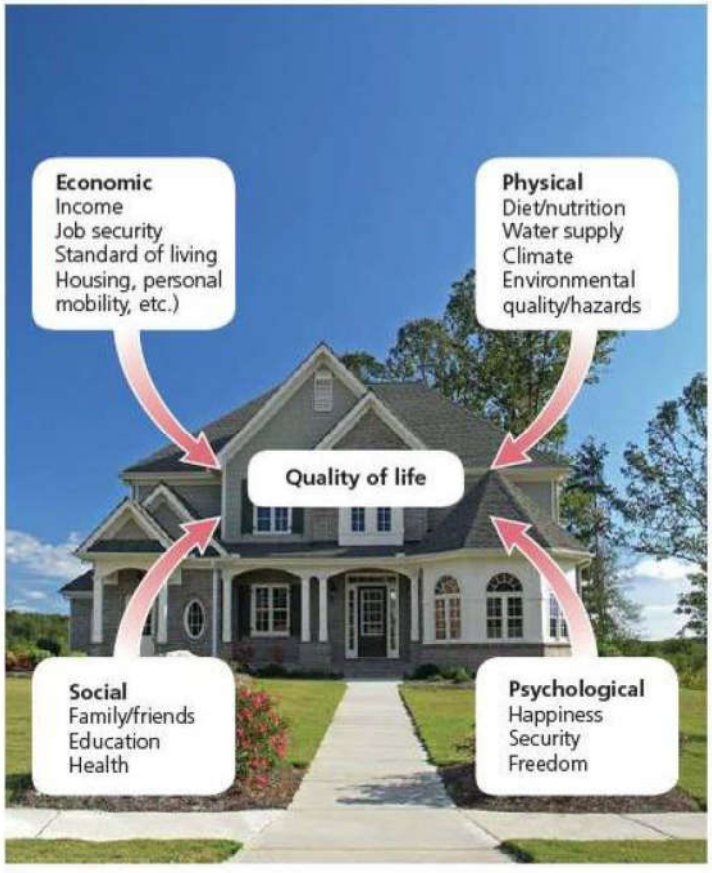


Figure 14.7 Factors comprising the quality of life

Figure 14.8 An open-pit toilet: sanitation is lacking in some LICs, reducing people's quality of life

The traditional indicator of a country's wealth has been the **gross domestic product (GDP)**. The GDP is the total value of goods and services produced by a country in a year. A more recent measure, gross national income, has to some extent taken over from GDP as a preferred measure of national wealth. **Gross national income (GNI)** comprises the total value of goods and services produced within a country; that is, its gross domestic product, together with its income received from other countries (notably interest and dividends), less similar payments made to other countries.

To take account of the different populations of countries, the **gross national income per person** is often used. Here, the total GNI of a country is divided by the total population. Per person figures allow for more valid comparisons between countries when their total populations are very different. However, 'raw' or 'nominal' GNI data does not take into account the way in which the cost of living can vary between countries. For example, a dollar buys much more in China than it does in the USA. To account for this, the GNI at 'purchasing power parity' (PPP) is calculated. Figure 14.9 shows how **GNI at purchasing power parity per person** varied globally in 2013. The lowest GNI figures are concentrated in Africa and parts of Asia. The highest figures are in North America, the EU, Japan, Australia and New Zealand.

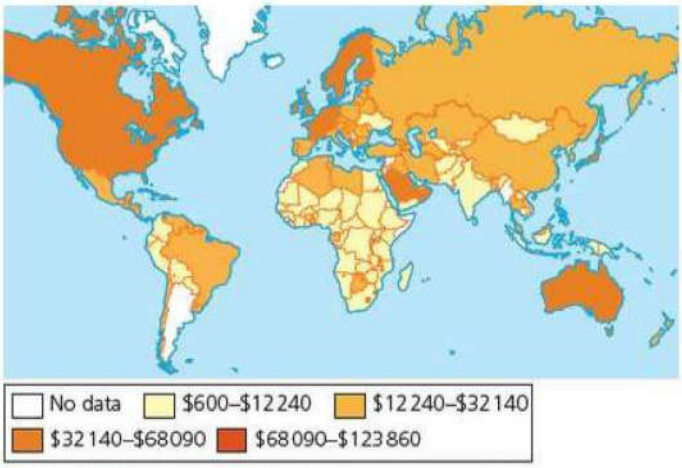


Figure 14.9 Worldwide GNI PPP per person, 2013

Table 14.2 shows the top 20 and bottom 20 countries in GNI PPP per person for 2013. The **development gap** between the world's wealthiest and poorest countries is huge. All bottom 20 countries are in Africa! However, a major limitation of GNI and other national data is that these are 'average' figures for a country, which tell us nothing about:

- the way in which wealth is distributed within a country – in some countries, the gap between rich and poor is much greater than in others
- how government invests the money at its disposal – for example, Cuba has a low GNI per person but high standards of health and education because these have been government priorities for a long time.

Table 14.2 Top 20 and bottom 20 countries in GNI (PPP) per person in 2013

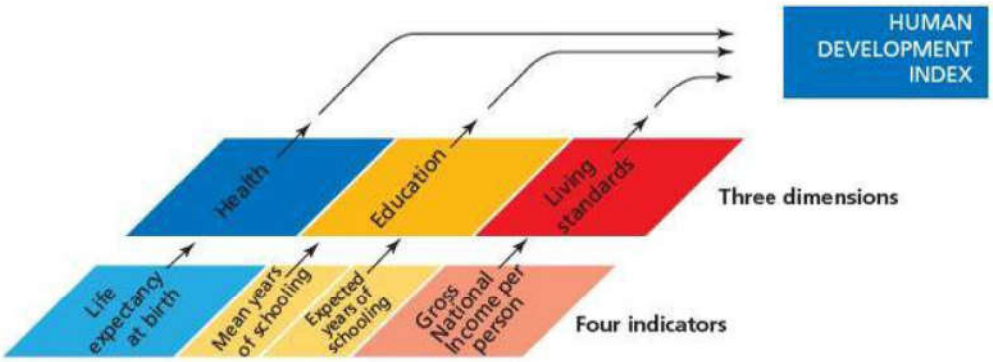
Top 20 countries (US$)		Bottom 20 countries (US$)	
Qatar	123 860	Gambia	1620
Macao, SAR	112 180	Burkina Faso	1560
Kuwait	88 170	Comoros	1560
Singapore	76 850	Zimbabwe	1560
Brunei	68 090	Mali	1540
Norway	66 520	Rwanda	1430
Luxembourg	59 750	Uganda	1370
UAE	58 090	Madagascar	1350
Hong Kong, SAR	54 260	Ethiopia	1350
USA	53 960	Guinea-Bissau	1240
Switzerland	53 920	Togo	1180
Saudi Arabia	53 780	Eritrea	1180
Oman	52 170	Guinea	1160
Sweden	44 660	Mozambique	1040
Germany	44 540	Niger	910
Denmark	44 440	Burundi	820
Austria	43 810	Liberia	790
Netherlands	43 210	Malawi	760
Canada	42 590	Congo D.R.	680
Australia	42 540	Central African Republic	600

Source: 2014 World Population Data Sheet, Population Reference Bureau

Development not only varies between countries, it can also vary significantly within countries. Most of the measures that can be used to examine the contrasts between countries can also be used to look at regional variations within countries.

Broader measures of development: the Human Development Index

The way that the quality of life has been measured has changed over time. In the 1980s, the Physical Quality of Life Index (PQLI) was devised. The PQLI was the average of three development factors: literacy, life expectancy and infant mortality. However, in 1990 the **Human Development Index (HDI)** was devised by the UN as a better measure to show the disparities between countries. The HDI is a composite index that has changed slightly in character in recent years. The current index contains four indicators of development (Figure 14.10):



Source: *IGCSE Geography* 2nd edition, P. Guinness & G. Nagle (Hodder Education, 2014) p.164

Figure 14.10 The components of the HDI

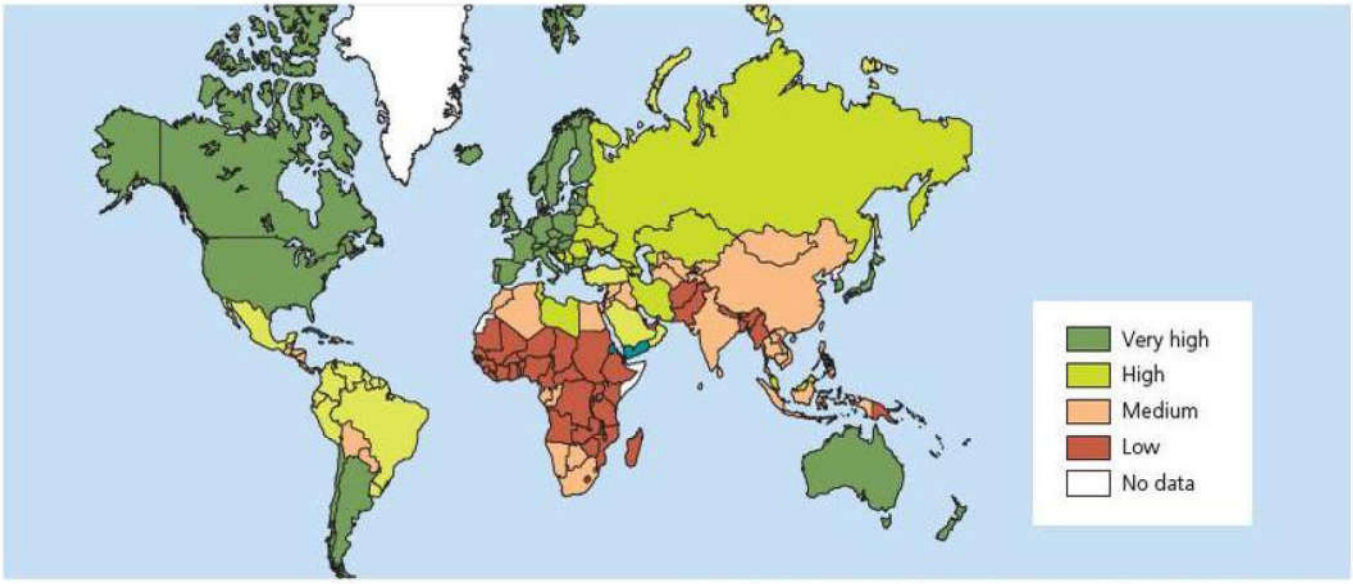
- life expectancy at birth
- mean years of schooling for adults aged 25 years
- expected years of schooling for children of school entering age
- GNI per person (PPP).

The actual figures for each of these four measures are converted into an index (Figure 14.10), each of which has a maximum value of 1.0. The index values are then combined and averaged to give an overall HDI value. This also has a maximum value of 1.0. Every year, the UN publishes the *Human Development Report*, which uses the HDI to rank all the countries of the world in their level of development. The countries of the world are divided into four groups:

- Very high human development (Figure 14.11)
- High human development
- Medium human development
- Low human development.

Figure 14.12 shows the global distribution of these four groups in 2011.

Figure 14.11 The Waterfront, Vancouver – Canada has a very high level of human development



Source: *IGCSE Geography* 2nd edition, P. Guinness & G. Nagle (Hodder Education, 2014) p.165

Figure 14.12 Map of the HDI, 2011

Every measure of development has merits and limitations. No single measure can provide a complete picture of the differences in development between countries. This is why the UN combines different aspects of the quality of life to arrive at a figure of human development for each country. Although the development gap can be measured in a variety of ways, it is generally taken to be increasing (Figure 14.13). Many people are concerned about this situation, either because they see it as very unfair or because it can create political instability.

Overall, inequality has been getting worse, though trends in inequality are complicated. Basically:

If you compare *individuals* – average incomes per head of the world's richest and poorest people – the gap has narrowed, largely because China and India made immense reductions in poverty.

If you compare *countries* – the average income of one country and another – the gap has widened: more countries are lagging behind the rich nations than are catching up.

If you compare incomes *within countries* – between the richest people and the poorest – then again the gap is widening: from within China to the USA, the rich are pulling away from the poor.

One review of the literature looked at inequality from a variety of angles. It concluded that people round the centre of income distribution worldwide have been drawing together to some extent, yet the extremes have been flying apart.

The gap between the richest and the poorest has been widening, but income difference for those in the middle has slightly narrowed. 'There is no sign at all that either the extreme impoverishment at the bottom or the extreme enrichment at the top of the world distribution are coming to an end.'

Source: The Tomorrow Project

Figure 14.13 Globalisation – will the gap between the rich and poor narrow?

The Human Development Report

The HDI is published annually. It is a key part of the *Human Development Report* (*HDR*). According to a recent edition of the *HDR*, 'Human development is about putting people at the centre of development. It is about people realising their potential, increasing their choices and enjoying the freedom to lead lives they value. Since 1990, annual *Human Development Reports* have explored challenges including poverty, gender, democracy, human rights, cultural liberty, globalisation, water scarcity and climate change.'

In assessing the progress made in reducing global poverty, the *HDR* has noted that:

- in the last 60 years, poverty has fallen more than in the previous 500 years
- poverty has been reduced in some respects in almost all countries
- child death rates in developing countries have been cut by more than half since 1960
- malnutrition rates have declined by almost a third since 1960
- the proportion of children not in primary education has fallen from more than half to less than a quarter since 1960
- the share of rural families without access to safe water has been cut from nine-tenths to about a quarter since 1960.

These are just some of the achievements made during what the *HDR* calls the 'second Great Ascent from poverty', which started in the 1950s in the developing world, Eastern Europe and the former Soviet Union. The first Great Ascent from poverty began in Europe and North America in the late nineteenth century in the wake of the Industrial Revolution.

However, although the global poverty situation is improving, approximately one person in six worldwide struggles on a daily basis in terms of:

- adequate nutrition
- uncontaminated drinking water
- safe shelter
- adequate sanitation
- access to basic healthcare.

These people have to survive on $1.25 a day or less and are largely denied access to public services for health, education and infrastructure.

Figure 14.14 Rural Mongolia – a part of the world where many people still live in poverty

Individual measures of development

There are many individual measures of socio-economic development, some of which have already been mentioned. Indicators not mentioned above include:

- the number of people per doctor
- energy use per person
- number of motor vehicles per 1000 people
- per person food intake in calories
- televisions/refrigerators per 1000 population
- per person export and import volumes
- environmental protection expenditure as a percentage of GDP.

Some of the most important indicators of development are considered in more detail below.

Infant mortality rate

The infant mortality rate is regarded as one of the most sensitive indicators of socio-economic progress. It is an important measure of health equity both between and within countries.

There are huge differences in the infant mortality rate around the world, despite the wide availability of public health knowledge. Differences in material resources certainly provide a large part of the explanation for how international populations can share the same knowledge but achieve disparate mortality rates. Differences in the efficiency of social institutions and health systems can also enable countries with similar resource levels to register disparate mortality levels. Infant mortality generally aligns well with other indicators of development. However, many countries have significant intranational disparities in infant mortality, where populations share similar resource levels and health technology but achieve different health outcomes in various regions of the same country. Data on infant mortality rates can be found in Topic 4, Section 4.1.

Education

Education is undoubtedly the key to socio-economic development. It can be defined as the process of acquiring knowledge, understanding and skills. Education has always been regarded as a very important individual indicator of development and it has figured prominently in aggregate measures. Quality education generally, and female literacy in particular, are central to development (Figure 14.15). The World Bank has concluded that improving female literacy is one of the most fundamental achievements for a developing nation to attain, because so many aspects of development depend upon it. For example, there is a very strong relationship between the extent of female literacy and infant and child mortality rates. People who are literate are able to access medical and other information that will help them towards a higher quality of life compared with those who are illiterate.

Figure 14.15 A secondary school in Morocco

The UN sees education for sustainable development as being absolutely vital for the future of the planet. Sustainable development seeks to meet the needs of the present without compromising those of future generations. The year 2005 was the beginning of the United Nations Decade for Sustainable Development, which ran until 2014.

Nutrition

Undernourishment is concentrated in the least developed countries, particularly in Sub-Saharan Africa and South Asia. The remaining problem areas are found in former Soviet Union countries. However, transitory areas of undernourishment can be caused by natural or human-made disasters.

Hunger may be defined as a condition resulting from chronic under-consumption of food and/or nutritious food products. It can be a short-term or long-term condition. If long-term, it is usually described as chronic hunger. Malnutrition is the condition that develops when the body does not get the right amount of the vitamins, minerals and other nutrients it needs to maintain healthy tissues and organ function. Malnutrition occurs in people who are undernourished. Undernutrition is a consequence of consuming too few essential nutrients or using or excreting them more rapidly than they can be replaced. The leading cause of death in children in LICs is protein-energy malnutrition. This type of malnutrition is the result of inadequate intake of calories from proteins, vitamins and minerals. Malnutrition is not confined to LICs – it can also be a condition of the very poor in more affluent nations.

The global recession of 2008–09 increased malnutrition for many of the most vulnerable people in LICs. A paper published by the United Nations Standing Committee on Nutrition found that:

- in many countries, the hours of work needed to feed a household of five increased by 10–20per cent during 2008
- the nutritional consequences of food price increases were likely to be considerable
- currently, some 50million, or 40per cent, of pregnant women in LICs are anaemic – this number is likely to rise because of the current economic situation; nutritional problems very early in pregnancy will influence later foetal and infant growth.

Increased and diversified agricultural production is one of the most reliable, sustainable interventions to improve nutrition and reduce infant and child malnutrition and mortality (Figure 14.16).

Figure 14.16 Food market in Agadir, Morocco

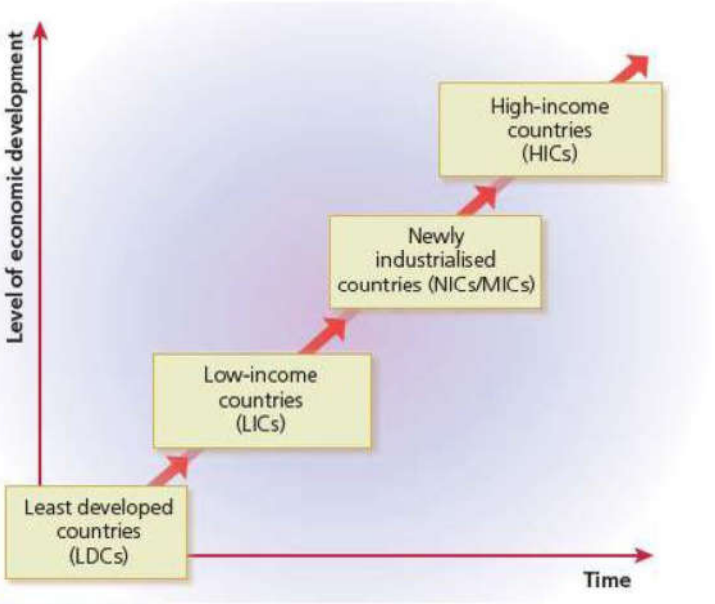


Figure 14.17 Stages of development

Section 14.1 Activities

1 Look at Figure 14.7. Select what you think are the four most important aspects of the quality of life. Justify your selections.
2 Define **a** *GNI per person*, **b** *GNI at purchasing power parity* and **c** the *development gap*.
3 Describe the global distribution of GNI PPP per person shown in Figure 14.9.
4 Why are organisations such as the UN increasingly using GNI data at purchasing power parity?
5 **a** Define the *infant mortality rate*.
b Why is it judged to be a prime indicator of socio-economic development?
6 Why is the level of education considered to be such an important measure of a country's development?
7 Discuss the importance of nutrition as a measure of development.

Different stages of development

Although the global development picture is complex, a general distinction can be made between the developed 'North' and the developing 'South'. These terms were first used in *North–South: A Programme for Survival*, published in 1980. This publication is generally known as the 'Brandt Report' after its chairperson Willy Brandt.

Other terms used to distinguish between the richer and poorer nations are:

- developed and developing
- more economically developed countries (MEDCs) and less economically developed countries (LEDCs)
- high-income countries (HICs), medium-income countries (MICs) and low-income countries (LICs).

Over the years, there have been a number of descriptions and explanations of how countries moved from one level of development to another. A reasonable division of the world in terms of stages of economic development is shown in Figure 14.17.

The concept of **least developed countries (LDCs)** was first identified in 1968 by the United Nations Conference on Trade and Development (UNCTAD). These are the poorest of the developing countries. They have major economic, institutional and human-resource problems. These are often made worse by geographical handicaps and natural and human-made disasters. *The Least Developed Countries Report 2009* identified 49 countries as LDCs. With 10.5 per cent of the world's population, these countries generate only one-tenth of 1 per cent of global income (0.1 per cent). The list of LDCs is reviewed every three years by the UN. When countries develop beyond a certain point, they are no longer considered to be LDCs.

Many of the LDCs are in Sub-Saharan Africa. Others are concentrated in the poverty belt of Asia (including Nepal and Afghanistan) or are small island nations in the South Pacific. As the gap between the richest and poorest countries in the world widens, LDCs are being increasingly **marginalised** in the world economy. Their share of world trade is declining and in many LDCs national debt now equals or exceeds GDP. Such a situation puts a stranglehold on all attempts to halt socio-economic decline.

LDCs are usually dependent on one or a small number of exports for their survival. Figure 14.18 shows a classification of LDCs according to their export specialisation.

Oil exporters	Agricultural exporters	Mineral exporters	Manufactures exporters	Services exporters	Mixed exporters
Angola	Afghanistan	Burundi	Bangladesh	Cape Verde	Lao People's Dem. Republic
Chad	Benin	Central African Republic	Bhutan	Comoros	Madagascar
Equatorial Guinea	Burkina Faso	Dem. Republic of the Congo	Cambodia	Djibouti	Myanmar
Sudan	Guinea-Bissau	Guinea	Haiti	Eritrea	Senegal
Timor-Leste	Kiribati	Mali	Lesotho	Ethiopia	Togo
Yemen	Liberia	Mauritania	Nepal	Gambia	
	Malawi	Mozambique		Maldives	
	Solomon Islands	Niger		Rwanda	
	Somalia	Sierra Leone		Samoa	
	Tuvalu	Zambia		São Tomé and Principe	
	Uganda			United Republic of Tanzania	
				Vanuatu	

Source: *The Least Developed Countries Report 2008*; UNCTAD

Figure 14.18 Classification of LDCs

The first countries to become **newly industrialised countries (NICs)** were South Korea, Singapore, Taiwan and Hong Kong. The media referred to them as the four 'Asian tigers'. A 'tiger economy' is one that grows very rapidly. This group is now often referred to as the first generation of NICs. The reasons for the success of these countries were:

- a good initial level of infrastructure
- a skilled but relatively low-cost workforce
- cultural traditions that revere education and achievement
- governments welcoming FDI from TNCs
- all four countries having distinct advantages in terms of geographical location
- the ready availability of bank loans, which were often extended at government behest and at attractive interest rates.

The success of these four countries provided a model for others to follow, such as Malaysia, Brazil, China and India. In the last 15 years, the growth of China has been particularly impressive. South Korea and Singapore have developed so much that many people now consider them to be developed countries.

Explaining the development gap

There has been much debate about the causes of the development gap. Detailed studies have shown that variations between countries are due to a variety of factors (Figure 14.19).

Physical geography

- Landlocked countries have generally developed more slowly than coastal ones.
- Small island countries face considerable disadvantages in development.
- Tropical countries have grown more slowly than those in temperate latitudes, reflecting the poor health and unproductive farming in the tropical regions. However, richer non-agricultural tropical countries such as Singapore do not suffer a geographical deficit of this kind.
- A generous allocation of natural resources has spurred economic growth in a number of countries.

Economic policies

- Open economies that welcomed and encouraged foreign investment have developed faster than closed economies.
- Fast-growing countries tend to have high rates of saving and low spending relative to GDP.
- Institutional quality in terms of good government, law and order and lack of corruption generally result in a high rate of growth.

Demography

- Progress through demographic transition is a significant factor, with the highest rates of growth experienced by those nations where the birth rate has fallen the most.

Figure 14.19 Factors affecting rates of development

Figure 14.20 shows how such factors have combined in MICs/LICs to produce higher and lower levels of development. In diagram **a**, the area where the three factors coincide gives the highest level of development. In contrast, in diagram **b** the area where the three factors combine gives the lowest level of development.

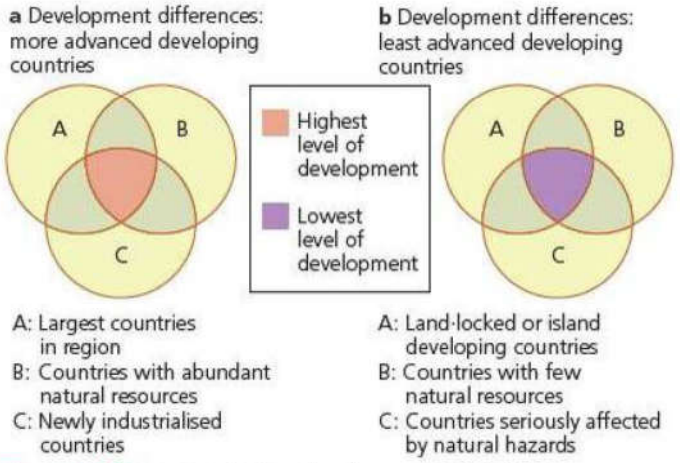


Figure 14.20 Fast and slow development MICs/LICs

Consequences of the development gap

The development gap has significant consequences for people in the most disadvantaged countries. The consequences of poverty can be economic, social, environmental and political (Figure 14.21). Development may not bring improvements in all four areas at first, but over time all four categories should witness advances.

Economic	Global integration is spatially selective: some countries benefit, others it seems do not. One in five of the world's people lives on less than $1 a day, almost half on less than $2 a day. Poor countries frequently lack the ability to pay for food, agricultural innovation, and investment in rural development.
Social	More than 850 million people in poor countries cannot read or write. Nearly a billion people do not have access to clean water and 2.4 billion do not have even basic sanitation. Eleven million children under 5 die from preventable diseases each year. People in these countries do not have the ability to combat the effects of HIV/AIDS.
Environmental	Poor countries have increased vulnerability to natural disasters. They lack the capacity to adapt to climate change or deal with consequent droughts. Poor farming practices lead to environmental degradation. Often, raw materials are exploited with very limited economic benefit to poor countries and little concern for the environment. Landscapes can be devastated by mining, vast areas of rainforest felled for logging and clearance for agriculture, and rivers and land polluted by oil exploitation.
Political	Poor countries that are low on the development scale often have a non-democratic government or they are democracies that function poorly. There is usually a reasonably strong link between development and improvement in the quality of government. In general, the poorer the country the worse the plight of minority groups.

Figure 14.21 Consequences of poverty

Section 14.1 Activities

1. Suggest three countries for each stage of development shown in Figure 14.17.
2. With reference to Figure 14.20, suggest why some poorer countries have been able to develop into MICs/NICs while many have not.
3. Review the physical, economic and demographic factors responsible for the development gap.

14.2 The globalisation of economic activity

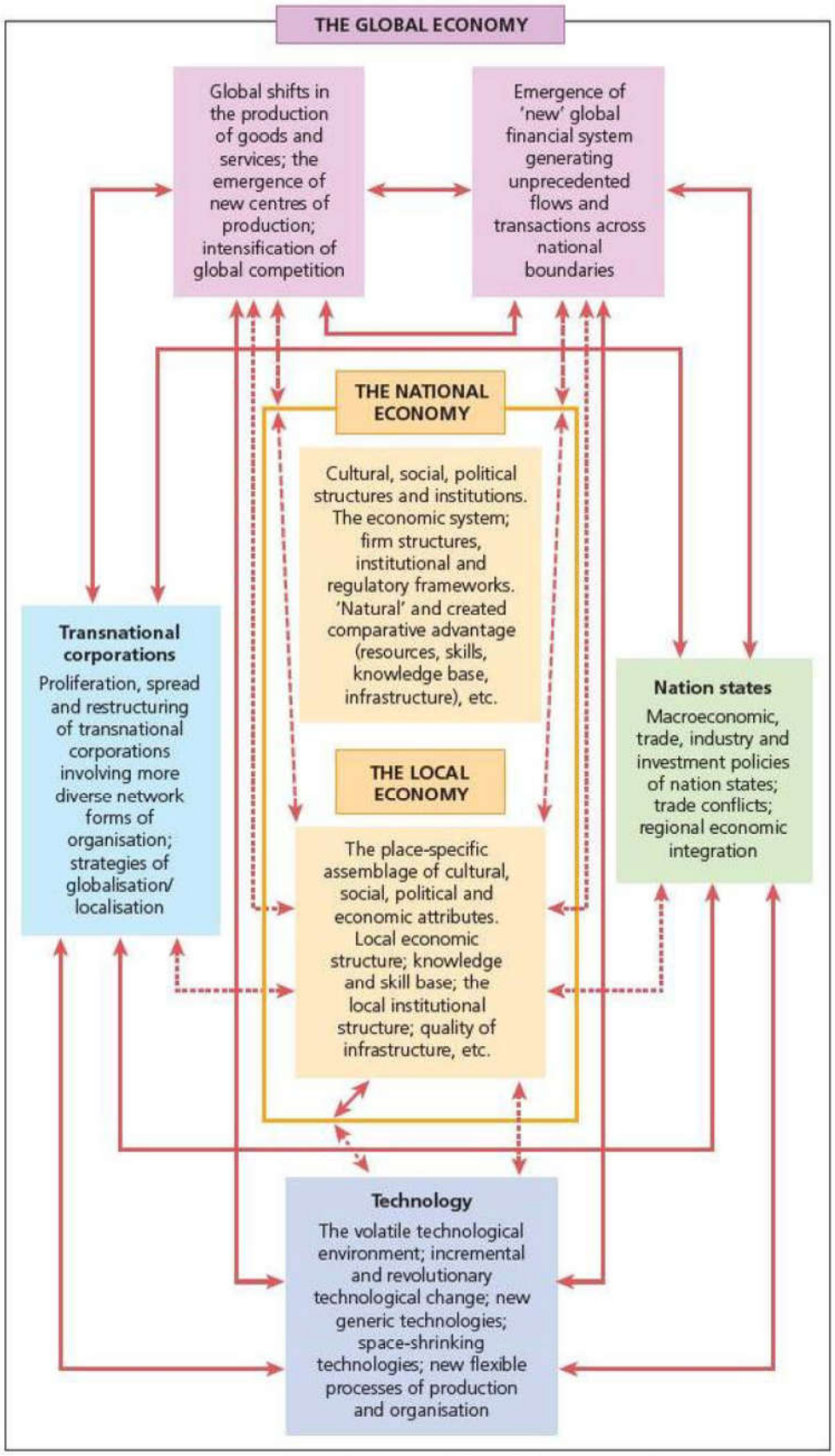
☐ Global patterns of resources, production and markets

Globalisation is the increasing interconnectedness and interdependence of the world economically, culturally and politically. There are many aspects of globalisation, which are summarised in Figure 14.22. The word 'globalisation' did not come into common usage until about 1960. In 1961, Webster became the first major dictionary to give a definition of globalisation. However, the word was not recognised as academically significant until the early to mid-1980s. Since then, its use has increased dramatically.

Dimension	Characteristics
Economic	Under the auspices of first GATT and latterly the WTO, world trade has expanded rapidly. Transnational corporations have been the major force in the process of increasing economic interdependence, and the emergence of different generations of NICs has been the main evidence of success in the global economy. However, the frequency of 'anti-capitalist' demonstrations in recent years shows that many people have grave concerns about the direction the global economy is taking. Many LEDCs and a significant number of regions within MEDCs feel excluded from the benefits of globalisation.
Urban	A hierarchy of global cities has emerged to act as the command centres of the global economy. New York, London and Tokyo are at the highest level of this hierarchy. Competition within and between the different levels of the global urban hierarchy is intensifying.
Social/cultural	Western culture has diffused to all parts of the world to a considerable degree through TV, cinema, the internet, newspapers and magazines. The international interest in brand-name clothes and shoes, fast food and branded soft drinks and beers, pop music and major sports stars has never been greater. However, cultural transmission is not a one-way process. The popularity of Islam has increased considerably in many Western countries, as has Asian, Latin American and African cuisine.
Linguistic	English has clearly emerged as the working language of the 'global village'. Of the 1.9 billion English speakers, some 1.5 billion people around the world speak English as a second language. In a number of countries there is great concern about the future of the native language.
Political	The power of nation states has been diminished in many parts of the world as more and more countries organise themselves into trade blocs. The European Union is the most advanced model for this process of integration, taking on many of the powers that were once the sole preserve of its member nation states. The United Nations has intervened militarily in an increasing number of countries in recent times, leading some writers to talk about the gradual movement to 'world government'. On the other side of the coin is the growth of global terrorism.
Demographic	The movement of people across international borders and the desire to move across such borders has increased considerably in recent decades. More and more communities are becoming multicultural in nature.
Environmental	Increasingly, economic activity in one country has had an impact on the environment in other nations. The long-range transportation of airborne pollutants is the most obvious evidence of this process. The global environmental conferences in Rio de Janeiro (1992) and Johannesburg (2002) is evidence that most countries see the scale of the problems as so large that only coordinated international action can bring realistic solutions.

Figure 14.22 The dimensions of globalisation

Figure 14.23 shows Peter Dicken's view of the global economy. TNCs and nation states are the two major decision-makers. Nation states individually and collectively set the rules for the global economy but



Source: *Access to Geography: Globalisation* by P. Guinness (Hodder Education, 2003), p.4

Figure 14.23 The global economy

the bulk of investment is through TNCs, which are the main drivers of **global shift**. This is the movement of economic activity, particularly in manufacturing, from HICs to NICs and LICs. It is this process that has resulted in the emergence of an increasing number of NICs since the 1960s.

The development of globalisation

Globalisation is a relatively recent phenomenon (post-1960), which is very different from anything the world had previously experienced. It developed out of **internationalisation**. A key period in the process of internationalisation occurred between 1870 and 1914, when:

- transport and communications networks expanded rapidly
- world trade grew significantly, with a considerable increase in the level of interdependence between rich and poor nations
- there were very large flows of capital from European companies to other parts of the world.

International trade tripled between 1870 and 1913. At this time, the world trading system was dominated and organised by four nations: Britain, France, Germany and the USA. However, the global shocks of the First World War and the Great Depression (1929 to late 1930s) put a stop to this period of phenomenal economic growth. It was not until the 1950s that international interdependence was back on track. Since then, world trade has grown consistently faster than world GDP. However, even by 1990 the level was unremarkable compared with that of the late nineteenth and early twentieth centuries. It is not surprising, therefore, that some writers argue that the level of integration before 1914 was similar to that of today.

However, today's globalisation is very different from the global relationships of 50 or 100 years ago. Peter Dicken makes the distinction between the 'shallow integration' of the pre-1914 period and the 'deep integration' of the present period. The global economy is more extensive and complicated than it has ever been before.

Economic globalisation

Figure 14.24 shows the main influences on the globalisation of economic activity. This is not a definitive list and you may be able to think of others. The factors responsible for economic globalisation can be stated as follows:

- Until the post-1950 period, the production process itself was mainly organised within national economies. This has changed rapidly in the last 50 years or so with the emergence of a **new international division of labour (NIDL)** reflecting a change in the geographical pattern of specialisation, with the fragmentation of many production processes across national boundaries. The widespread use of terms such as 'outsourcing' and 'offshoring' signify the importance of this process. (For more information on outsourcing, refer back to page 452.)
- International trade flows have become increasingly complex as this process has developed.
- There have been major advances in trade liberalisation under the World Trade Organization.
- There was an emergence of fundamentalist free-market governments in the USA (Ronald Reagan) and the UK (Margaret Thatcher) around 1980. The economic policies developed by these governments influenced policy-making in many other countries.
- An increasing number of NICs emerged.
- The old Soviet Union and its Eastern European communist satellites merged into the capitalist system (Figure 14.25). Now, no significant group of countries stands outside the free-market global system.
- Other economies opened up, notably those of China and India.
- The world financial markets were deregulated.
- The 'transport and communications revolution' has made possible the management of the complicated networks of production and trade that exist today.

Figure 14.24 Globalisation trends

Figure 14.25 The fall of the Berlin Wall signalled the beginning of the integration of Eastern Europe into the free-market system

a A part of the wall that still exists
b A plaque showing where the wall used to be

The advantages for economic activity in working at the global scale

Large companies in particular recognise many advantages in working at the global scale as opposed to at national or continental scales:

- Sourcing of raw materials and components on a global basis reduces costs.
- TNCs can seek out the lowest-cost locations for labour and other factors.
- High-volume production at low cost in countries such as China helps to reduce the rate of inflation in other countries and helps living standards to rise.
- Collaborative arrangements with international partners can increase the efficiency of operations considerably.
- Selling goods and services to a global market allows TNCs to achieve very significant economies of scale.
- Global marketing helps to establish brands with huge appeal all around the world.

Which are the most globalised countries?

Figure 14.26 shows the most globalised countries in the world according to the 2007 A.T. Kearney/Foreign Affairs Index of Globalization. The 2007 index ranked 72 countries according to their degree of globalisation. These countries accounted for 97 per cent of the world's GDP and 88 per cent of the global population. The A.T. Kearney Index of Globalization comprised four key elements of global integration:

- economic integration
- personal contact
- technological connectivity
- political engagement.

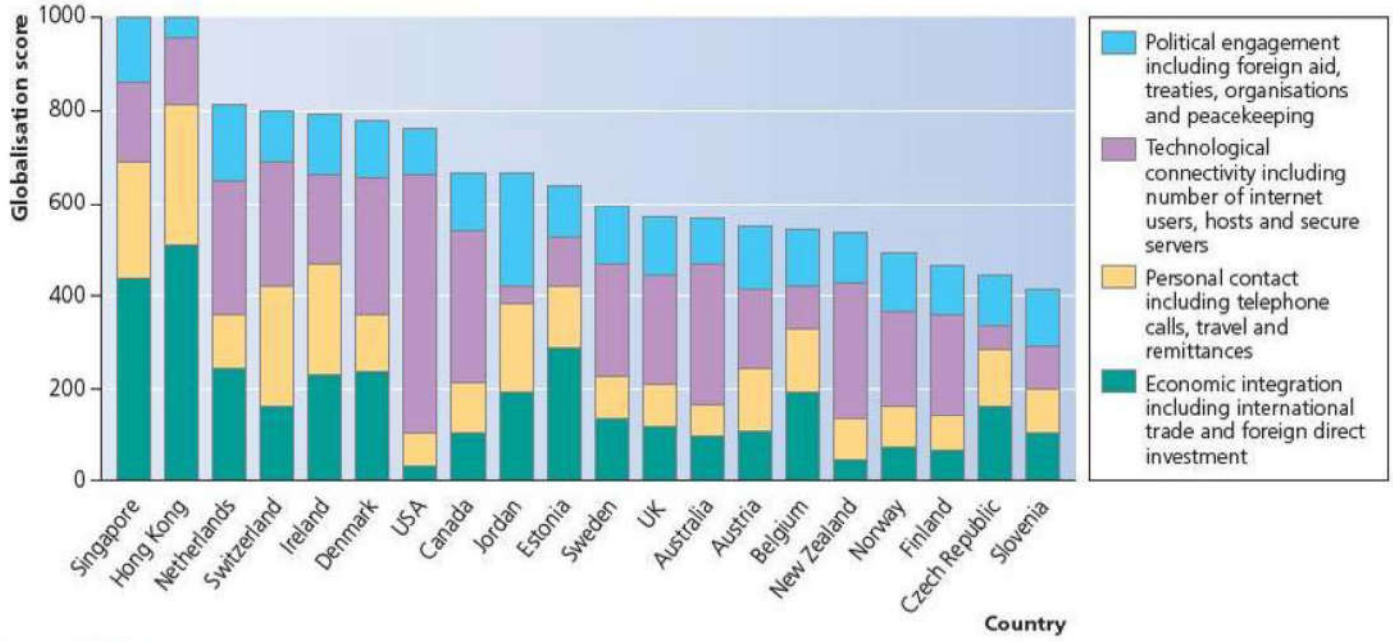


Figure 14.26 A.T. Kearney Globalization Index 2007

Figure 14.27 Post Office – Tiananmen Square, Beijing

Economic integration brings together data on trade and FDI. The latter includes both inflows and outflows. International travel and tourism is also included in this category. Personal contact encompasses international telephone calls and cross-border remittances. As countries become more globalised, personal contacts increase accordingly. The average community today will have far more former members living abroad than was the case 30 years ago. International telephone calls are a good way of comparing countries at one point in time and also recording changes over time. Remittances have become an increasingly important source of money flowing between countries because of the growing number of migrant workers (Figure 14.27).

Technological connectivity concerns the number of internet users and internet hosts. The internet has arguably been the single most important advance in the globalisation process.

Political engagement considers a country's membership of a variety of international organisations. International contacts are vital to virtually all aspects of the development process.

Figure 14.26 shows that the most globalised countries in rank order are Singapore, Hong Kong, the Netherlands, Switzerland, Ireland, Denmark and the USA. However, the composition of their total globalisation scores is markedly different in some cases. Economic integration is the most important factor for Singapore and Hong Kong. It is much less important for the other five most globalised countries, and its contribution is particularly low for the USA. It can be argued that large economies like the USA are able to satisfy far more of their economic needs from within their own borders than small countries with limited land areas and resources in general.

For the USA, technological connectivity is by far the most dominant of the four elements of globalisation. This reflects the high level of affluence in the USA and the eagerness to embrace new technology at the business and individual levels.

Section 14.2 Activities

1 Define **a** *globalisation* and **b** *global shift*.
2 Discuss two of the dimensions of globalisation covered in Figure 14.22.
3 Explain the *new international division of labour*.
4 Briefly discuss the factors responsible for economic globalisation.
5 Explain the advantages for economic activity in working at the global scale.
6 Discuss the factors used by the A.T. Kearney Index to measure globalisation.

Transnational corporations and foreign direct investment

Major transnational corporations and foreign direct investment flows

Investment involves expenditure on a project in the expectation of financial (or social) returns. Transnational corporations (TNCs) are the main source of foreign direct investment (FDI). TNCs invest to make profits and are the driving force behind economic globalisation. They are capitalist enterprises that organise the production of goods and services in more than one country. As the rules regulating the movement of goods and investment have been relaxed in recent decades, TNCs have extended their global reach. As the growth of FDI has expanded, the sources and destinations of that investment have become more and more diverse. FDI is not dominated by flows from core to periphery in the same way that it was even 20 years ago. Investment flows from NICs such as South Korea, Taiwan, China, India and Brazil have increased markedly. The investment flow network is more complex today than it has ever been.

There are now few parts of the world where the direct or indirect influence of TNCs is not important. In some countries and regions, their influence on the economy is huge. Apart from their direct ownership of productive activities, many TNCs are involved in a web of collaborative relationships with other companies across the globe. Such relationships have become more and more important as competition has become increasingly global in its extent.

TNCs have a substantial influence on the global economy in general, and in the countries in which they choose to locate in particular. They play a major role in world trade in terms of what and where they buy and sell. A not inconsiderable proportion of world trade is intra-firm; that is, taking place within TNCs. The organisation of the car giants exemplifies intra-firm trade, with engines, gearboxes and other key components produced in one country and exported for assembly elsewhere. Table 14.3

shows the world's ten largest TNCs by revenue and profits, according to Global 500 published by *Fortune* magazine. The list is led by Royal Dutch Shell, Wal-Mart Stores and Exxon Mobil. The top five companies all recorded revenue in excess of $400 billion. Exxon Mobil recorded the largest profit of any company in the world at almost $45 billion. However, it should be noted that sometimes large corporations make a loss.

According to the *World Investment Report 2013*, there are over 100 000 TNCs worldwide. The 100 largest TNCs represent a significant proportion of total global production.

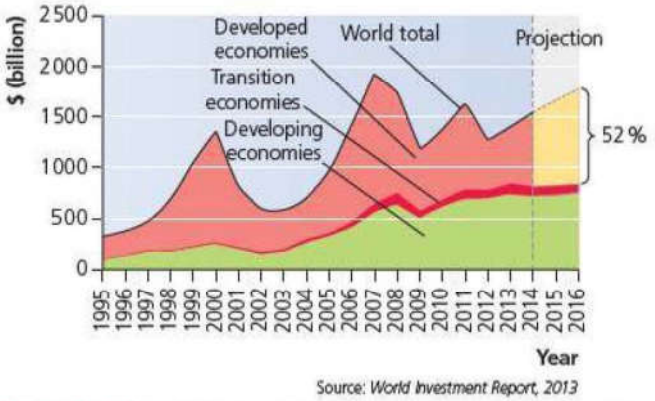
Global FDI inflows amounted to $1.45 trillion in 2013 (Figure 14.29). This comprised:

- $566 billion into developed countries (39 per cent)
- $778 billion into developing economies (54 per cent)
- $108 billion to transition economies (7 per cent).

Table 14.3 The world's 10 largest corporations, 2013

Rank	Company	Revenue ($ billion)	Profits ($ billion)	HQ country
1	Royal Dutch Shell	481.7	26.6	Netherlands
2	Wal-Mart Stores	469.2	17.0	USA
3	Exxon Mobil	449.9	44.9	USA
4	Sinopec Group	428.2	8.2	China
5	China National Petroleum	408.6	18.2	China
6	BP	388.3	11.6	UK
7	State Grid	298.4	12.3	China
8	Toyota Motor	265.7	11.6	Japan
9	Volkswagen	247.6	27.9	Germany
10	Total	234.3	13.7	France

Figure 14.28 The financial district, Chicago



Source: *World Investment Report, 2013*

Figure 14.29 FDI inflows, global and by groups of economies, 1995–2016

The share of developing and 'transition economies' in global FDI inflows has risen significantly in recent decades. The transition economies are those in South East Europe and the Commonwealth of Independent States (CIS). They have been given the term 'transition economies' by the World Investment Report to recognise that they are still in the process of change from centrally planned communist economies to full members of the capitalist global economy. Developing Asia remains the world's largest recipient of FDI inflows.

Figure 14.30 shows the rapidly changing nature of **global FDI outflows** by group of economies. Between 1999 and 2013, the share of FDI outflows of the developed economies declined from 93 per cent to 61 per cent. In contrast, the share of the developing and transition economies increased from 7 per cent to 39 per cent.

Capital flow can help MICs and LICs with economic development by furnishing them with necessary capital and technology. However, capital flow from HICs to MICs and LICs has been skewed, with some countries far more favoured than others. Most Sub-Saharan African countries, which urgently needed foreign capital for economic betterment, have been largely excluded from globalised investment in the past, although there

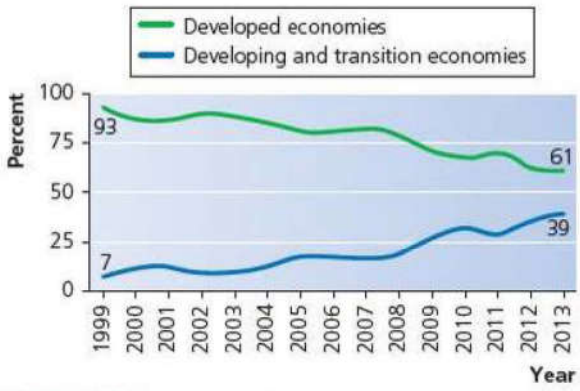


Figure 14.30 Share of FDI outflows by group of economies

Figure 14.31 Japanese investment in the UK – Suzuki in Crawley

is evidence that this is beginning to change. While controlling for other social and economic factors, democratised LICs appear to attract more foreign capital than undemocratic countries because their democratic institutions can provide secure and profitable environments for investment with protection of property rights and social spending on human capital.

The development of TNCs over time

Figure 14.32 shows the main stages in the historical evolution of TNCs. Although the first companies to produce outside their home nation did not emerge until the latter half of the nineteenth century, by 1914 US, British and mainland European firms were involved in substantial overseas manufacturing production. Prior to the First World War, the UK was the major source of overseas investment, the pattern of which was firmly based on its empire. Between the wars, TNC manufacturing investment, particularly American, increased substantially. By 1939, the USA had become the main source of foreign investment in manufacturing. The USA was to become even more powerful in the global economy after the Second World War, for it was the only industrial power to emerge from the conflict stronger rather than weaker.

Period	Type	Characteristics
1500–1800	Mercantile capitalism and colonialism	Government-backed chartered companies
1800–75	Entrepreneurial and financial capitalism	Early development of supplier and consumer markets Infrastructural investment by financial houses
1875–1945	International capitalism	Rapid growth of market-seeking and resource-based investments
1945–60	Transnational capitalism	FDI dominated by USA TNCs expand in size
1960–present	Globalisation capitalism	Expansion of European and Japanese FDI Growth of inter-firm alliances, joint ventures and outsourcing

Figure 14.32 Stages in the evolution of TNCs

However, the USA does not dominate the global economy today in the way it did in the immediate post-war period. The reconstruction of the Japanese and German economies resulted in both countries playing a significant transnational role by the 1970s, which was to expand considerably in the following decades. In fact, the large Japanese TNCs were to become models for their international competitors as they revolutionised business organisation. Other HICs such as the UK, France, Italy, the Netherlands, Switzerland, Sweden and Canada also played significant roles in the geographical spread of FDI. More recently, NICs such as South Korea and Taiwan have expanded their corporate reach, not just to lower-wage economies but also into HICs. Figure 14.33 illustrates the sequential development of a TNC, which begins with operation in the domestic market only. Large companies often reach the stage when they want to produce outside of their home country and take the decision to become transnational. The benefits of such a move include:

- using cheaper labour, particularly in LICs
- exploiting new resource locations
- circumventing trade barriers
- tapping market potential in other world regions
- avoiding strict domestic environmental regulations
- maximising exchange-rate advantages.

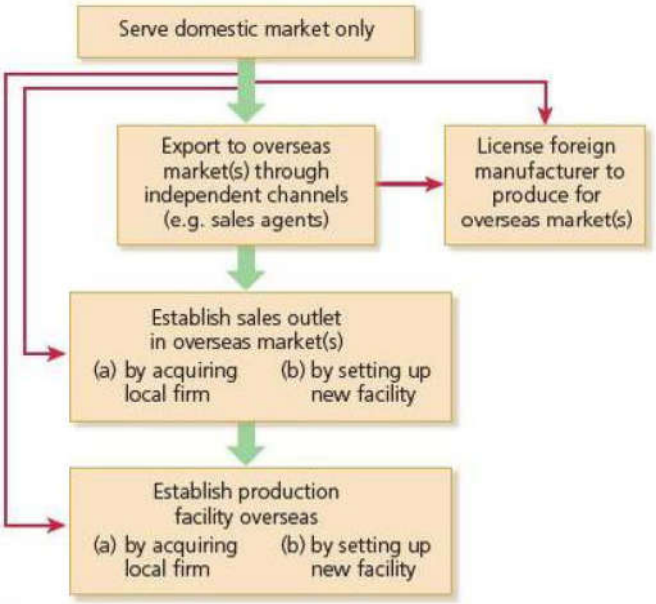


Figure 14.33 Sequential development of a TNC

Contrasting spatial and organisational structures

TNCs vary widely in overall size and international scope. Variations include:

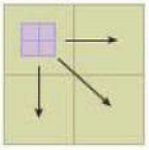
- the number of countries
- the number of subsidiaries
- the share of production accounted for by foreign activities

- the degree to which ownership and management are internationalised
- the division of research activities and routine tasks by country
- the balance of advantages and disadvantages to the countries in which they operate.

Large TNCs often exhibit three organisational levels: headquarters; research and development; and branch plants. The headquarters of a TNC will generally be in the HIC city where the company was established. Research and development is most likely to be located here too, or in other areas within this country. It is the branch plants that are the first to be located overseas. However, some of the largest and most successful TNCs have divided their industrial empires into world regions, each with research and development facilities and a high level of independent decision-making. Figure 14.34 shows the locational changes that tend to occur as TNCs develop over time.

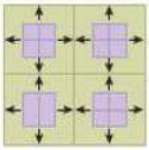
Figure 14.35 shows four simplified models that illustrate major ways of organising the geography of TNC production units. Toyota and the other global car manufacturers are closest to model **c**, a system often referred to as a 'horizontal organisational structure'. In contrast, Nike is a good example of model **d**, illustrating a vertical organisational structure. However, Nike is not integrated in the traditional sense – it does not own the various stages of production because it subcontracts the manufacturing stages of its product range.

a Globally concentrated production



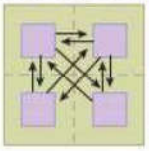
All production at a single location. Products are exported to world markets.

b Host-market production



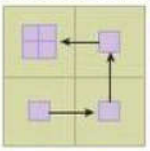
Each production unit produces a range of products and serves the national market in which it is located. No sales across national boundaries. Individual plant size limited by the size of the national market.

c Product specialisation for a global or regional market

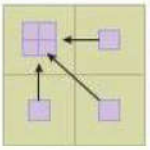


Each production unit produces only one product for sale throughout a regional market of several countries. Individual plant size very large because of scale economies offered by the large regional market.

d Transnational vertical integration

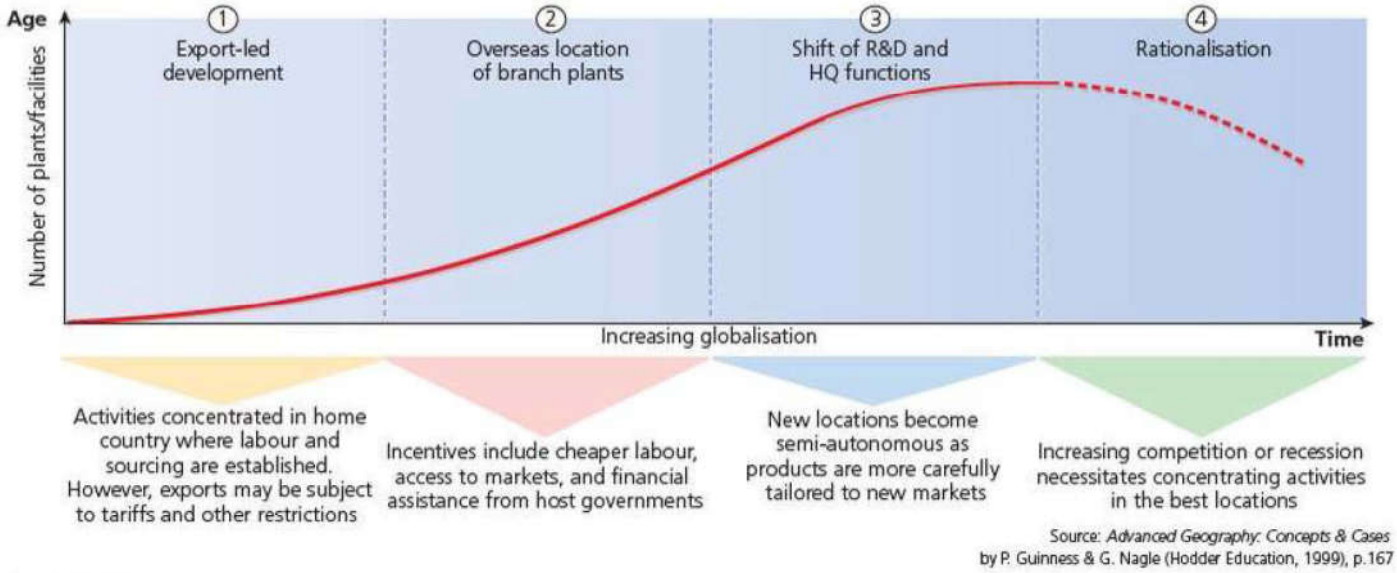


Each production unit performs a separate part of a production sequence. Units are linked across national boundaries in a 'chain-like' sequence – the output of one plant is the input of the next plant



Each production unit performs a separate operation in a production process and ships its output to a final assembly plant in another country.

Figure 14.35 Ways of organising TNC production units



Source: *Advanced Geography: Concepts & Cases* by P. Guinness & G. Nagle (Hodder Education, 1999), p.167

Figure 14.34 The development of TNCs – locational changes

Case Study: Nike

Nike is the world's leading supplier of sports footwear, apparel and equipment, and one of the best-known global brands. It was founded in 1972 and the company went public in 1980. The company is an example of a vertical organisational structure across international boundaries, characterised by a high level of subcontracting activity. Nike does not make any shoes or clothes itself, but contracts out production to South Korean and Taiwanese companies. Nike employs 650 000 contract workers in 700 factories worldwide. The company list includes 124 plants in China, 73 in Thailand, 35 in South Korea and 34 in Vietnam. More than 75 per cent of the workforce is based in Asia. The majority of workers are women under the age of 25.

The subcontracted companies operate not only in their home countries but also in lower-wage Asian economies such as Vietnam, the Philippines and Indonesia – 150 Asian factories employing 350 000 workers manufacture products for Nike. The company has a reputation for searching out cheap pools of labour. Nike's expertise is in design and marketing. Figure 14.36 shows Nike's 'commodity circuit'. It is a clear example of the New International Division of Labour (NIDL).

Nike illustrates both 'Fordist' and 'Flexible' characteristics. An example of its Fordist nature is the Air Max Penney basketball shoes, which consist of 52 component parts from five different countries. The shoes pass through 120 people during production, on a clearly demarcated global production chain.

However, Nike also exhibits Flexible characteristics. The company aims to produce new shoes on a regular basis to cater for niche markets. To achieve this objective, it utilises a just-in-time innovation structure, buying in necessary expertise at short notice. This involves short-term subcontracts, often allocated to firms based close to Nike's research and development headquarters near Beaverton in the state of Oregon, USA.

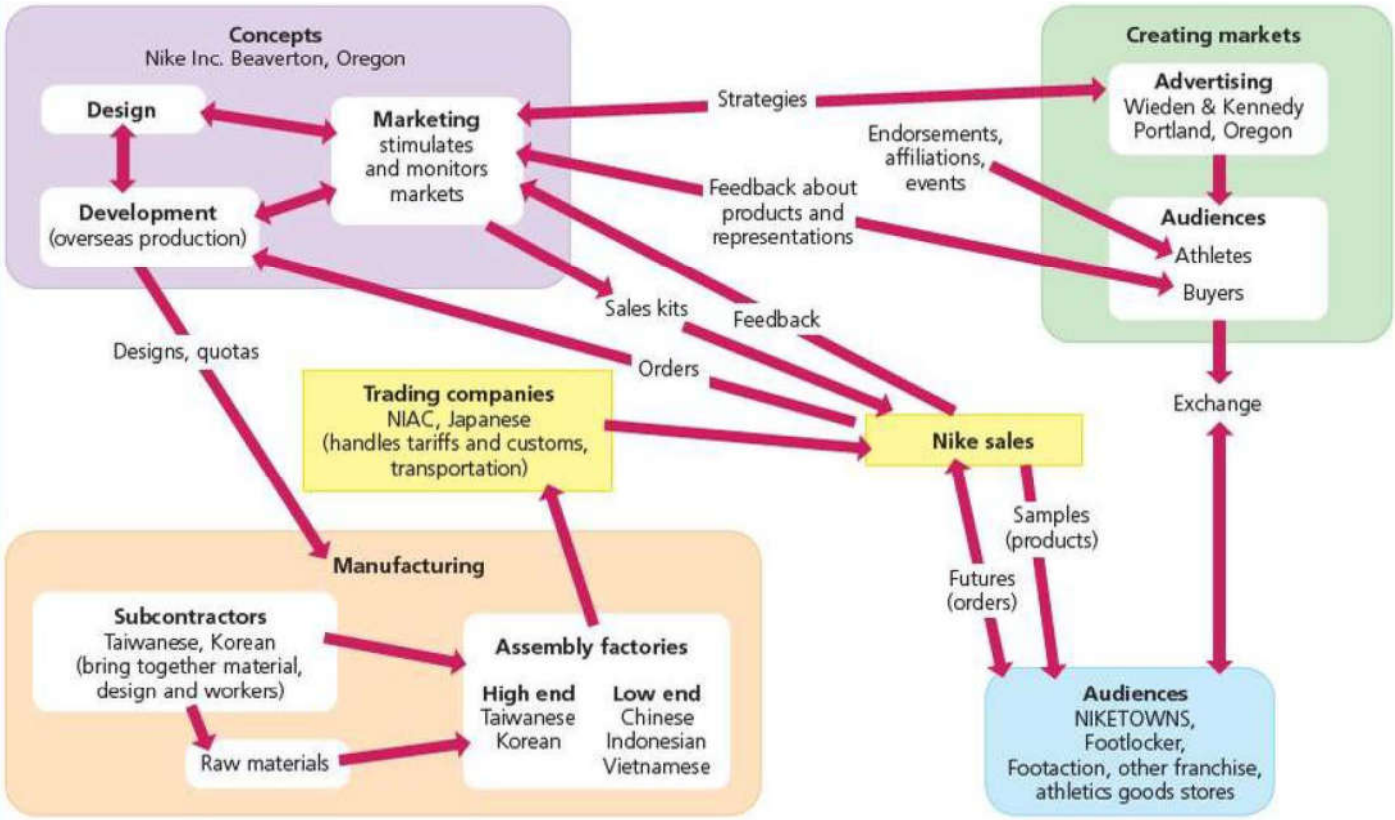


Figure 14.36 Nike's commodity circuit

Section 14.2 Activities

1 Define **a** *TNCs* and **b** *FDI*.
2 Describe the FDI inflow trends shown in Figure 14.29.
3 Comment on the trends shown in Figure 14.30.
4 Describe and explain the development of TNCs over time.
5 Comment on the different forms of TNC organisation shown in Figure 14.35.
6 Produce a brief bullet-point summary of the Nike case study.

The emergence and growth of newly-industrialised countries

In Asia, four **generations of NIC** can be recognised in terms of the timing of industrial development and their current economic characteristics. Within this region, only Japan is at a higher economic level than the NICs (Table 14.4) but there are a number of countries at much lower levels of economic development. The latter group are the poorest countries in the region.

Table 14.4 Levels of economic development in Asia

Level	Countries	GNI PPP per person, 2013 ($)
1	Japan – a HIC	37630
2	First generation NICs, e.g. South Korea	33440
3	Second generation NICs, e.g. Malaysia	22460
4	Third generation NICs, e.g. China	11850
5	Fourth generation NICs, e.g. Vietnam	5030
6	Poorest countries, e.g. Cambodia	2890

Nowhere else in the world is the filter-down concept of industrial location better illustrated. When Japanese companies first decided to locate abroad in the quest for cheap labour, they looked to the most developed of their neighbouring countries, particularly South Korea and Taiwan. Most other countries in the region lacked the physical infrastructure and skills levels required by Japanese companies. Companies from elsewhere in HICs, especially the USA, also recognised the advantages of locating branch plants in such countries. As the economies of the first generation NICs developed the level of wages increased, resulting in:

- Japanese and Western TNCs seeking locations in second-generation NICs where improvements in physical and human infrastructures now satisfied their demands but where wages were still low
- indigenous companies from the first-generation NICs also moving routine tasks to their cheaper-labour neighbours such as Malaysia and Thailand.

With time, the process also included the third-generation NICs, a significant factor in the recent very high growth rates in China and India. The least developed countries in the region, nearly all hindered by conflict of one sort or another at some time in recent decades, are now beginning to be drawn into the system. The recent high level of FDI into Vietnam makes it reasonable to think of the country as an example of a fourth-generation Asian NIC.

First-generation NICs

What were the reasons for the phenomenal rates of economic growth recorded in South Korea, Taiwan, Hong Kong and Singapore from the 1960s? What was it that set this group of 'Asian tigers' apart from so many others? From the vast literature that has appeared on the subject, the following factors are usually given prominence:

- A good initial level of hard and soft infrastructure provided the preconditions for structural economic change.
- As in Japan previously, the land-poor NICs emphasised people as their greatest resource, particularly through the expansion of primary and secondary education but also through specialised programmes to develop scientific, engineering and technical skills.
- These countries have cultural traditions that revere education and achievement.
- The Asian NICs became globally integrated at a 'moment of opportunity' in the structure of the world system, distinguished by the geostrategic and economic interests of core capitalist countries (especially the USA and Japan) in extending their influence in East and South East Asia.
- All four countries had distinct advantages in terms of geographical location. Singapore is strategically situated to funnel trade flows between the Indian and Pacific Oceans, and its central location in the region has facilitated its development as a major financial, commercial and administrative/managerial centre. Hong Kong has benefited from its position astride the trade routes between North East and South East Asia, as well as acting as the main link to the outside world for south-east China. South Korea and Taiwan were ideally located to expand trade and other ties with Japan.
- The ready availability of bank loans, often extended at government behest and at attractive interest rates, allowed South Korea's *chaebol* in particular to pursue market share and to expand into new fields.

As their industrialisation processes have matured, the NICs have occupied a more intermediate position in the regional division of labour between Japan and other less developed Asian countries.

Deindustrialisation

In the USA and the UK, the proportion of workers employed in manufacturing has fallen from around 40 per cent at the beginning of the twentieth century to less than half that now. Even in Japan and Germany, where so much industry was rebuilt after 1945, manufacturing's share of total employment has dropped below 25 per cent. All HICs have followed this trend, known as deindustrialisation. The causal factors of deindustrialisation are:

- technological change enabling manufacturing to become more capital-intensive and more mobile
- the filter-down of manufacturing industry from HICs to lower wage economies, such as those of South East Asia
- the increasing importance of the service sector in the HICs.

There can be little surprise in the decline of manufacturing employment, for it has mirrored the previous decline in employment in agriculture in HICs. So if the decline of manufacturing in HICs is part of an expected cycle, the consequence of technological improvement and rising affluence, why is so much concern expressed about this trend? The main reasons would appear to be:

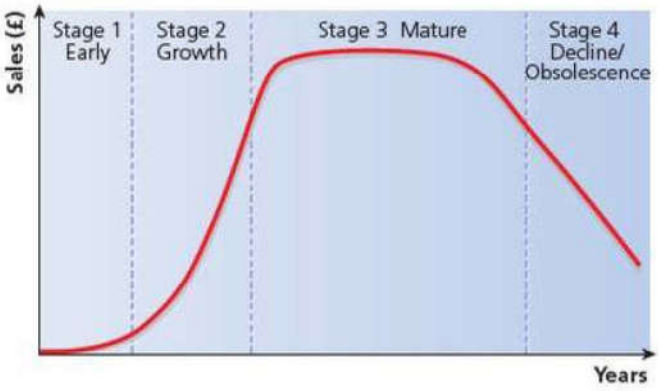
- The traditional industries of the Industrial Revolution were highly concentrated, so the impact of manufacturing decline has had severe implications in terms of unemployment and other social pathologies in a number of regions.
- The rapid pace of contraction of manufacturing has often made adjustment difficult.
- There are defence concerns if the production of some industries falls below a certain level.
- Some economists argue that over-reliance on services makes an economy unnecessarily vulnerable.
- Rather than being a smooth transition, manufacturing decline tends to concentrate during periods of economic recession.

The filter-down process of industrial relocation

The filter-down process, detailed by W.R. Thompson and others, operates at both global and national scales. Economic core regions have long been vulnerable to the migration of labour-intensive manufacturing to lower-wage areas of the periphery, as exemplified in the USA by the historical drift of the textile and shoe industries from New England, and apparel manufacture from New York, to North and South Carolina. The filter-down process is based on the notion that corporate organisations respond to changing critical input requirements by altering the geographical location of production to minimise costs and thereby ensure competitiveness in a tightening market.

The economic core (at national and global levels) has monopolised invention and innovation, and has thus continually benefited from the rapid growth rates characteristic of the early stages of an industry's life cycle (the product life cycle), one of exploitation of a new market. Production is likely to occur where the firm's main plants and corporate headquarters are located. Figure 14.37, illustrating the product life cycle, indicates that in the early phase scientific-engineering skills at a high level and external economies are the prime location factors.

In the growth phase, methods of mass production are gradually introduced and the number of firms involved in production generally expands as product information spreads. In this stage, management skills are the critical human inputs. Production technology tends to stabilise in the mature phase. Capital investment remains high and the availability of unskilled and semiskilled labour becomes a major locating factor. As the industry matures into a replacement market, the production process



Requirements	Product–Cycle Phase		
	Early	Growth	Mature
Management	2	1	3
Scientific-engineering know-how	1	2	3
Unskilled and semi-skilled labour	3	2	1
External economies	1	2	3
Capital	3	1[a]	1[a]

Source: Based on Oakey 1984 and Erickson & Leinbach 1979

Figure 14.37 The product life cycle

becomes rationalised and often routine. The high wages of the innovating area, quite consistent with the high-level skills required in the formative stages of the learning process, become excessive when the skill requirements decline and the industry, or a section of it, 'filters-down' to smaller, less industrially sophisticated areas where cheaper labour is available, but which can now handle the lower skills required in the manufacture of the product.

On a global scale, large TNCs have increasingly operated in this way by moving routine operations to LICs since the 1950s. However, the role of indigenous companies in developing countries should not be ignored. Important examples are the *chaebols* of South Korea, such as Samsung and Hyundai, and Taiwanese firms such as Acer. Here, the process of filter-down has come about by direct competition from LICs rather than from the corporate strategy of huge North American, European and Japanese transnationals.

It has been the revolution in transport and communications that made such substantial filter-down of manufacturing to LICs possible. Containerisation and the general increase in the scale of shipping have cut the cost of the overseas distribution of goods substantially, while advances in telecommunications have made global management a reality. In some cases, whole industries have virtually migrated, as did shipbuilding from Europe to Asia in the 1970s. In others, the most specialised work is done in HICs by skilled workers, and the simpler tasks elsewhere in the global supply chain.

Although the theory of the product life cycle was developed in the discipline of business studies to explain how the sales of individual products evolve, it can usefully be applied at higher scales. A firm with a range of ten products, half in stage 3 and half in stage 4, would have no long-term future. A healthy multi-product firm will have a strong research and development department ensuring a steady movement of successful products onto the market to give a positive distribution across the four stages of the model. Likewise, the industry mix of a region or a country can be plotted on the product life cycle diagram. Regions with significant socio-economic problems are invariably over-represented in stages 3 and 4. In contrast, regions with dynamic economies will have a more even spread across the model, with particularly good representation in the first two stages.

Figure 14.38 summarises the positive and negative effects of globalisation on **a** HICs and **b** NICs and LICs, including the impact of deindustrialisation on more affluent countries. Economists have recognised two types of deindustrialisation: positive and negative:

- Positive deindustrialisation occurs when the share of employment in manufacturing falls because of rapid productivity growth but where displaced labour is absorbed into the non-manufacturing sector. In such a situation, the economy is at or near full employment and GDP per person is rising steadily.
- Negative deindustrialisation results from a decline in the share of manufacturing in total employment, owing to a slow growth or decline in demand for manufacturing output, and where displaced labour results in unemployment.

Unfortunately in many HICs, the deindustrialisation experienced has been predominantly of the negative kind. Regional development policies have tried to address these problems with varying degrees of success.

Section 14.2 Activities

1 Describe and explain the information shown in Table 14.4.
2 Discuss the reasons for the development of the first generation of TNCs.
3 With reference to Figure 14.37, explain the product life cycle.
4 Examine the connection between industrial growth in NICs and some LICs, and deindustrialisation in HICs.
5 With reference to Figure 14.38, discuss the positive effects of deindustrialisation in HICs.

	Positive	Negative
In HICs	• Cheaper imports of all relatively labour-intensive products can keep cost of living down and lead to a buoyant retailing sector. • Greater efficiency apparent in surviving outlets. This can release labour for higher productivity sectors (this assumes low unemployment). • Growth in NICs and LICs may lead to a demand for exports from HICs. • Promotion of labour market flexibility and efficiency, greater worker mobility to area with relative scarcities of labour should be good for the country. • Greater industrial efficiency should lead to development of new technologies, promotion of entrepreneurship and should attract foreign investment. • Loss of industries can lead to improved environmental quality (e.g. Consett).	• Rising job exports leads to inevitable job losses. Competition-driven changes in technology add to this. • Job losses are often of unskilled workers. • Big gaps develop between skilled and unskilled workers who may experience extreme redeployment differences. • Employment gains from new efficiencies will only occur if industrialised countries can keep their wage demands down. • Job losses are invariably concentrated in certain areas and certain industries. This can lead to deindustrialisation and structural unemployment in certain regions. • Branch plants are particularly vulnerable as in times of economic recession they are the first to close, often with large numbers of job losses.
In NICs and LICs	• Higher export-generated income promotes export-led growth – thus promotes investment in productive capacity. Potentially leads to a multiplier effect on national economy. • Can trickle down to local areas with many new highly paid jobs. • Can reduce negative trade balances. • Can lead to exposure to new technology, improvement of skills and labour productivity. • Employment growth in relatively labour-intensive manufacturing spreads wealth, and does redress global injustice (development gap).	• Unlikely to decrease inequality – as jobs tend to be concentrated in core region of urban areas. May promote in-migration. • Disruptive social impacts, e.g. role of TNCs potentially exploitative and may lead to sweatshops. Also branch plants may move on in LICs too, leading to instability (e.g. in Philippines). • Can lead to overdependence on a narrow economic base. • Can destabilise food supplies, as people give up agriculture. • Environmental issues associated with over-rapid industrialisation. • Health and safety issues because of tax legislation.

Source: Sue Warn, 'The Global Shift', *Geo Factsheet*, Curriculum Press

Figure 14.38 The positive and negative impacts of global shift

14.3 Regional development

The extent of income disparities within countries

The scale of disparities within countries is often as much an issue as the considerable variations between countries (Figure 14.39). The **Gini coefficient** is a technique frequently used to show the extent of income inequality. It allows:

- analysis of changes in income inequality over time in individual countries
- comparison between countries.

Figure 14.40 shows global variations in the Gini coefficient for 2007–08. It is defined as a ratio with values between 0 and 1.0; it can also be expressed as a percentage. A low value indicates a more equal income distribution while a high value shows more unequal income distribution. A Gini coefficient of 0 would mean that everyone in a country had exactly the same income (perfect equality). At the other extreme, a Gini coefficient of 1 (or 100%) would mean that one person had all the income in a country (perfect inequality). Figure 14.40 shows that in general more affluent countries have a lower income gap than lower-income countries. In 2007–08, the global gap ranged from 0.232 (23.2%) in Denmark to 0.707 (70.7%) in Namibia.

Table 14.5 shows the ten most unequal countries in the World Bank's data set, which includes 112 countries for which data was available for at least one year between 2008 and 2013. In contrast, Table 14.6 shows data for the ten least unequal countries. The Gini coefficient average among all countries in the entire data set was 38.8% (0.388).

Figure 14.39 Graffiti on a fence in a lower-income part of Ulaanbaatar, Mongolia

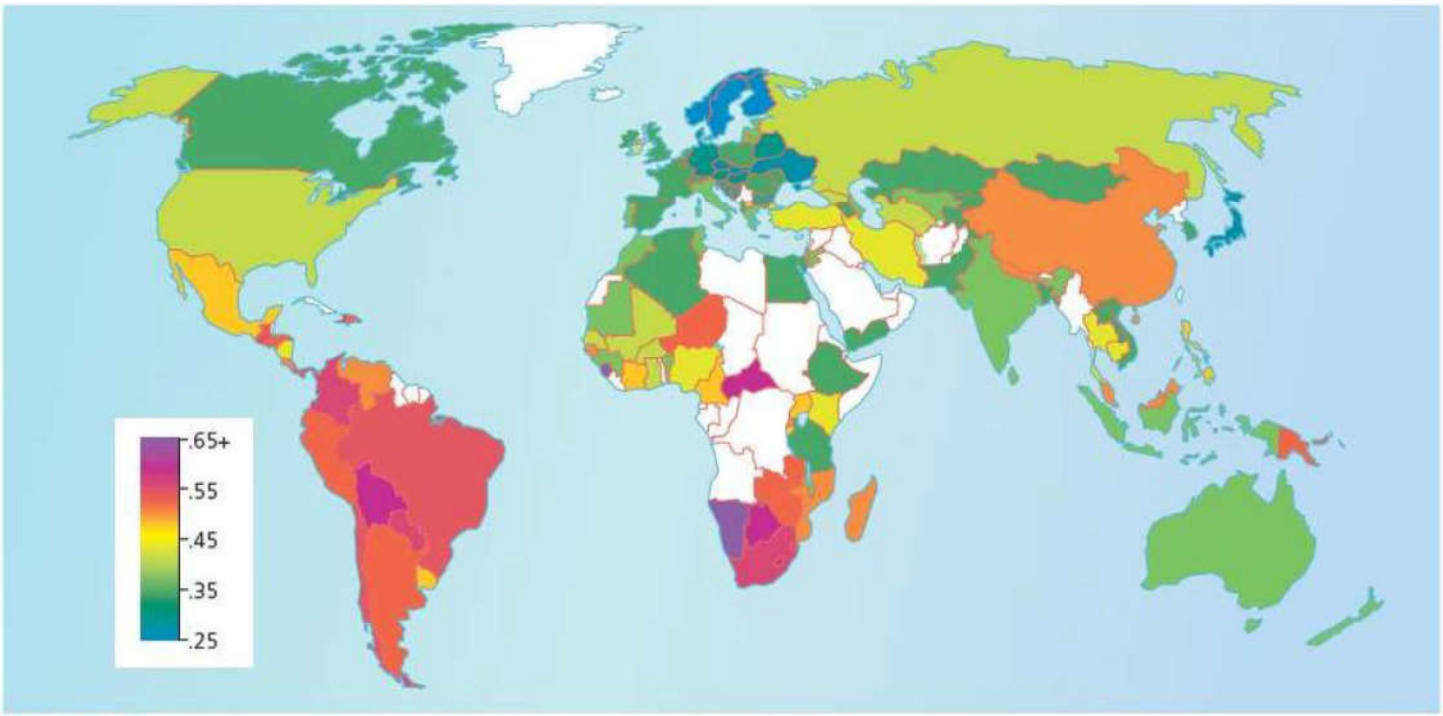


Figure 14.40 Worldwide variations in the Gini coefficient, 2007–08

Table 14.5 The ten most unequal countries

Country	Gini index	Bottom 10% share (%)	Top 10% share (%)
South Africa	65.0	1.1	53.8
Namibia	61.3	1.5	51.8
Botswana	60.5	1.1	49.6
Zambia	57.5	1.5	47.4
Honduras	57.4	0.8	45.7
Central African Republic	56.3	1.2	46.1
Lesotho	54.2	1.0	41.0
Colombia	53.5	1.1	42.0
Brazil	52.7	1.0	41.7
Guatemala	52.4	1.3	41.8

Table 14.6 The ten least unequal countries

Country	Gini index	Bottom 10% share (%)	Top 10% share (%)
Ukraine	24.8	4.4	21.0
Slovenia	24.9	3.9	20.8
Iceland	26.3	3.9	22.2
Czech Republic	26.4	3.7	22.2
Belarus	26.5	3.9	21.5
Slovakia	26.6	3.2	21.0
Norway	26.8	3.3	21.9
Denmark	26.9	3.3	22.1
Romania	27.3	3.7	21.5
Finland	27.8	3.7	22.6

The Lorenz curve is a graphical technique that shows the degree of inequality between two variables. It is often used to show the extent of income inequality in a population. The diagonal line represents perfect equality in income distribution. The further the curve away from the diagonal line, the greater the degree of income inequality. Thus in Figure 14.41, income inequality in Brazil was less in 2005 than in 1996. However, the significant gap between the 2005 curve and the diagonal line indicates that income inequality in Brazil remains very substantial indeed.

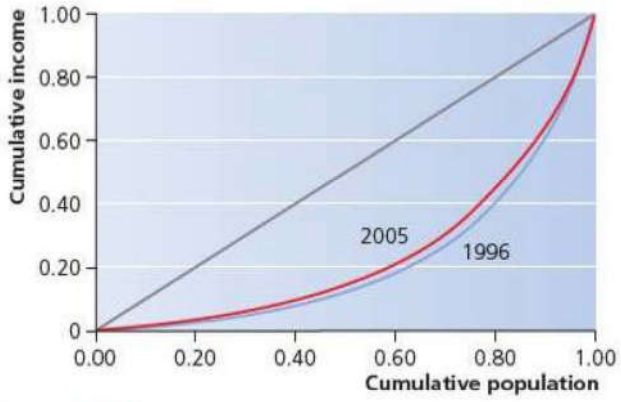


Figure 14.41 Lorenz curve for Brazil

A report published in October 2008 entitled 'Growing Unequal? Income Distribution and Poverty in OECD (Organization for Economic Cooperation and Development) Countries' found that:

- the gap between rich and poor has grown in more than three-quarters of OECD countries over the last two decades
- the economic growth of recent decades has benefited the rich more than the poor; in some countries, such as Canada, Finland, Germany, Italy, Norway and the USA, the gap also increased between the rich and the middle class
- countries with a wide distribution of income tend to have more widespread income poverty
- social mobility is lower in countries with high inequality, such as Italy, the UK and the USA, and higher in the Nordic countries where income is distributed more evenly.

Disparities within countries are rarely uniform throughout countries and thus a significant regional component usually exists. In China, the income gap between urban residents and the huge farm population reached its widest ever level in 2008 as rural unemployment in particular rose steeply. The ratio between more affluent urban dwellers and their rural counterparts reached 3.36 to 1, up from 3.33 to 1 in 2007. This substantial income gap is a very sensitive issue in China as more and more rural people feel they have been left behind in China's economic boom. The size of the income gap is not just a political problem; it is also causing considerable national economic concern. Falling purchasing power in rural areas is hindering efforts to boost domestic consumer spending. The government wants to do this to help compensate for declining exports caused by the global recession.

Section 14.3 Activities

1 What is the *Gini coefficient*?
2 Describe the global variation in the Gini coefficient shown in Figure 14.40.
3 What does the Lorenz curve in Figure 14.41 show?
4 Comment on the findings of the 2008 OECD report.

Theory of regional disparities

The Swedish economist Gunnar Myrdal produced his **cumulative causation** theory in 1957. Figure 14.42 is a simplified version of the model Myrdal produced. Cumulative causation theory was set in the context of LICs but the theory can also be applied reasonably to more advanced nations. According to Myrdal, a three-stage sequence can be recognised:

- the pre-industrial stage, when regional differences are minimal
- a period of rapid economic growth, characterised by increasing **regional economic divergence**

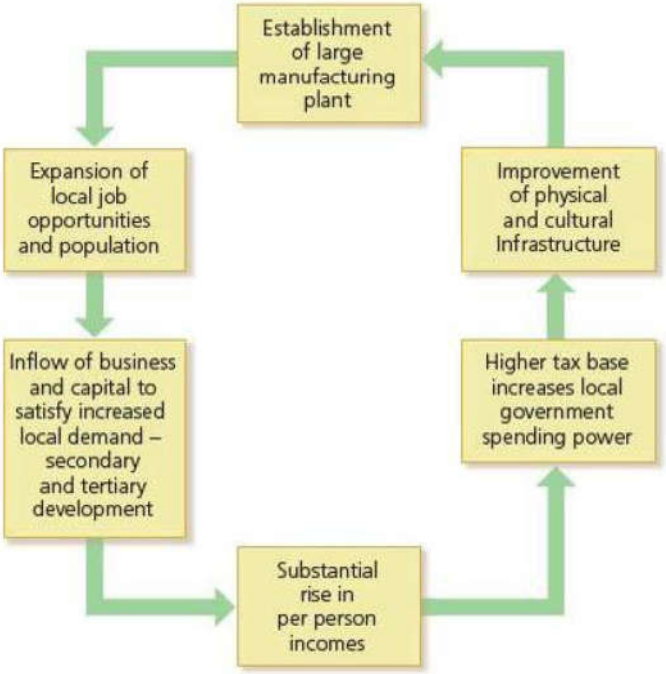


Figure 14.42 Simplified model of cumulative causation

- a stage of **regional economic convergence**, when the significant wealth generated in the most affluent region(s) spreads to other parts of the country.

Figure 14.43 shows how the regional economic divergence of the earlier stages of economic development can eventually change to regional economic convergence.

In Myrdal's model, economic growth begins with the location of new manufacturing industry in a region with a combination of advantages greater than elsewhere in the country. Once growth has been initiated in a dominant region, spatial flows of labour, capital and raw materials develop to support it and the growth region undergoes further expansion by the cumulative causation process. A detrimental 'backwash effect' is

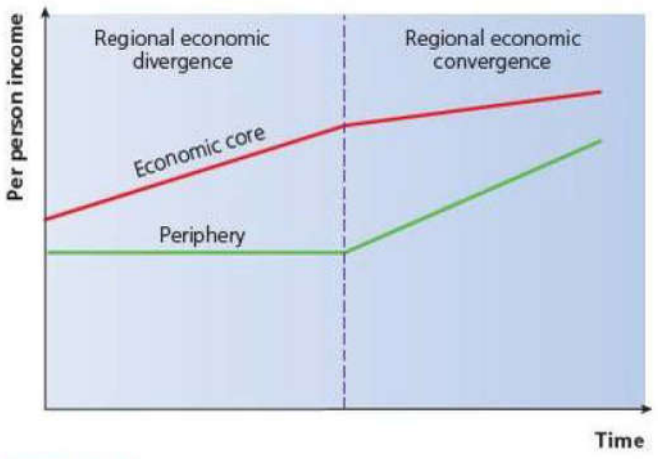


Figure 14.43 Regional economic divergence and convergence

Figure 14.44 A village in eastern Siberia – the standard of living in most parts of Asiatic Russia (the periphery) is lower than in European Russia

transmitted to the less developed regions as skilled labour and locally generated capital is attracted away. Manufactured goods and services produced and operating under the scale economies of the economic 'heartland' flood the market of the relatively underdeveloped 'hinterland', undercutting smaller-scale enterprises in such areas (Figure 14.44).

However, increasing demand for raw materials from resource-rich parts of the hinterland may stimulate growth in other sectors of the economy of such regions. If the impact is strong enough to overcome local **backwash effects** a process of cumulative causation may begin, leading to the development of new centres of self-sustained economic growth. Such **spread effects** are spatially selective and will only benefit those parts of the hinterland with valuable raw materials or other significant advantages.

The American economist Hirschman (1958) produced similar conclusions to Myrdal, although he adopted a different terminology. Hirschman labelled the growth of the **economic core region** (heartland) as 'polarisation', which benefited from 'virtuous circles' or upward spirals of development, whereas the **periphery** (hinterland) was impeded by 'vicious circles' or downward spirals. The term 'trickle-down' was used to describe the spread of growth from core to periphery. The major difference between Myrdal and Hirschman was that the latter stressed to a far greater extent the effect of counterbalancing forces overcoming polarisation (backwash), eventually leading to economic equilibrium being established. The subsequent literature has favoured the terms 'core' and 'periphery' rather than Myrdal's alternatives.

Section 14.3 Activities

1 Suggest reasons why income disparities are narrowing in some countries but getting wider in others.
2 Define the terms **a** *economic core region* and **b** *periphery*.
3 Explain in your own words the process shown in Figure 14.42.
4 Describe and explain the trends shown in Figure 14.43.
5 What is the evidence in Figure 14.44 that this region is part of the economic periphery of Russia?

Factors affecting internal disparities

Residence

Where people are born and where they live can have a significant impact on their quality of life (Figure 14.45). The focus of such study has been mainly on:

- regional differences within countries
- urban/rural disparities
- intra-urban contrasts.

Figure 14.45 Manholes in Ulaanbaatar, Mongolia – people in poverty sometimes live down these manholes because they provide access to the underground hot-water pipes that can provide warmth in the harsh winters

Case Study: Regional contrasts in Brazil

South-east Brazil (Figure 14.46) is the economic core region of Brazil. Over time, the south-east region has benefited from spatial flows of raw materials, capital and labour (Figure 14.47a). Capital and labour have come from abroad as well as from internal sources. The region grew rapidly through the process of cumulative causation. This process not only resulted in significant economic growth in the core, but also had a considerable negative impact on the periphery. The overall result was widening regional disparity. However, more recently some parts of the periphery, with a combination of advantages above the level of the periphery as a whole, have benefited from spread effects (trickle-down) emanating from the core (Figure 14.47b). Such spread effects are spatially selective and may be the result of either market forces or regional economic policy or, as is often the case, a combination of the two. The south region has been the most important recipient of spread effects from the south east, but the other regions have also benefited to an extent. This process has caused the regional gap to narrow at times, but often not for very long. However, in Brazil income inequality still remains very wide, although the gap has narrowed somewhat in recent years.

The south east's primary, secondary, tertiary and quaternary industries generate large amounts of money for Brazil. The natural environment of the south east provided the region with a number of advantages for the development of primary industries:

- The warm temperature, adequate rainfall and rich terra rossa soils (weathered from lava) have provided many opportunities for farming. The region is important for coffee, beef, rice, cacao, sugar cane and fruit.
- Large deposits of iron ore, manganese and bauxite have made mining a significant industry. Gold is still mined.
- The region is energy rich, with large deposits of oil and gas offshore. Hydro-electric power is generated from large rivers flowing over steep slopes.

Figure 14.46 South-east Brazil

- The temperate rainforest provides the raw material for forestry.
- Fishing is important for many of the coastal settlements.

The south east is the centre of both foreign and domestic investment in manufacturing industry. In the 1950s and 1960s, the government wanted Brazil to become a NIC. Because the south east had the best potential of all Brazil's five regions, investment was concentrated here. The region is the focus of the country's road and rail networks. It has the country's main airports and seaports. It also has a significant pipeline network for oil and gas. More TNCs are located in the south east than in the rest of Brazil. With the highest population density in Brazil, the labour supply is plentiful. The region also has the highest educational and skill levels in the country (Table 14.7).

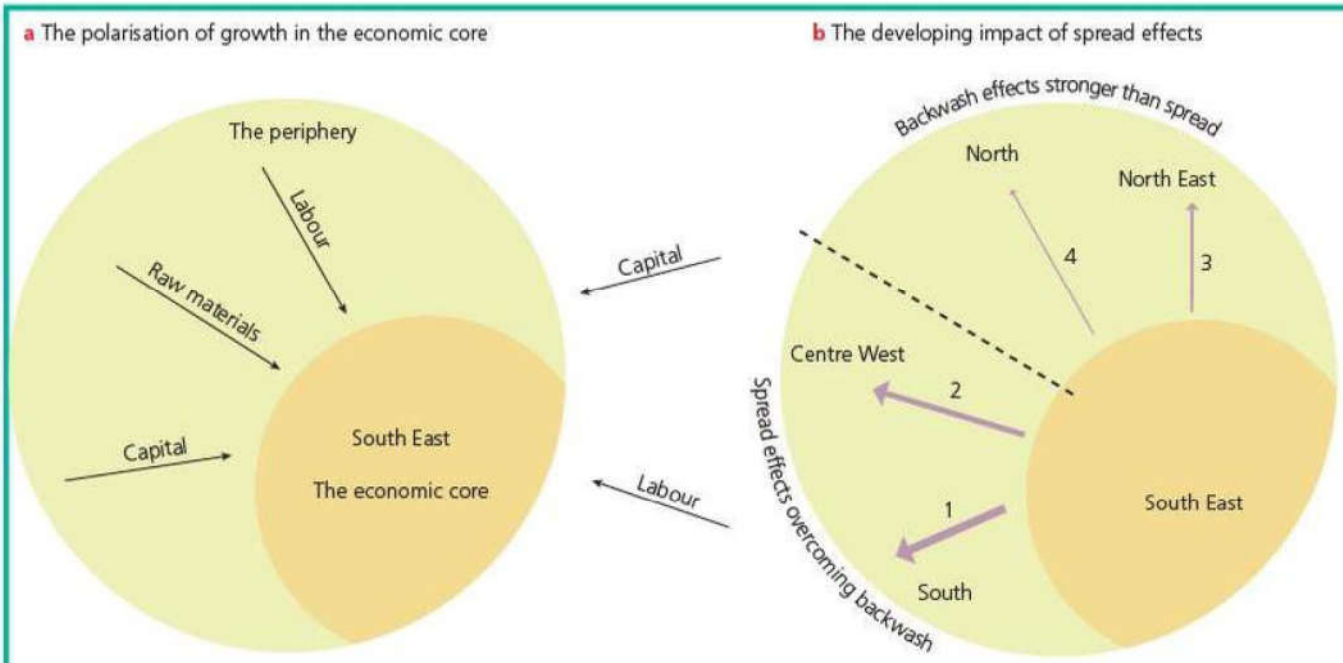


Figure 14.47 a Economic divergence and b economic convergence

Table 14.7 The population of Brazil's five regions, Census 2010 (millions)

South east	84.4
North east	53.0
South	27.7
North	16.0
Centre west	14.4

The car industry is a major activity in the region. Most of the world's large car makers are here, including Ford, GM, Toyota, VW and Fiat. Other manufacturing industries include food processing, textiles, furniture, clothing, printing, brewing and shoemaking. The raw materials located in the region and the large market have provided favourable conditions for many of these industries. However, cheaper imports of shoes, clothes and textiles from Asia have led to a number of companies in the region closing.

São Paulo is by far the largest financial centre in South America. The headquarters of most Brazilian banks are in São Paulo. Most major foreign banks are also located there. This is not surprising as Brazil dominates the economy of South America, and São Paulo is the largest city in South America. The south east is the centre of research and development in both the public and private sectors; 80 kilometres from São Paulo is São José dos Campos, where the Aerospace Technical Centre is located. It conducts teaching and research and development in aviation and outer-space studies. Many people would be surprised to know that aircraft and aircraft parts make up Brazil's largest export category.

The success of the first large wave of investment by foreign TNCs in the south east encouraged other TNCs to follow suit. For the last 50 years, the south east has experienced an upward cycle of growth (cumulative causation).

Figure 14.48 shows variations in GDP per person by state in 2014. The range is considerable, with a very clear concentration of low GDP per person in the north-east region, with the highest figures in the south east and south.

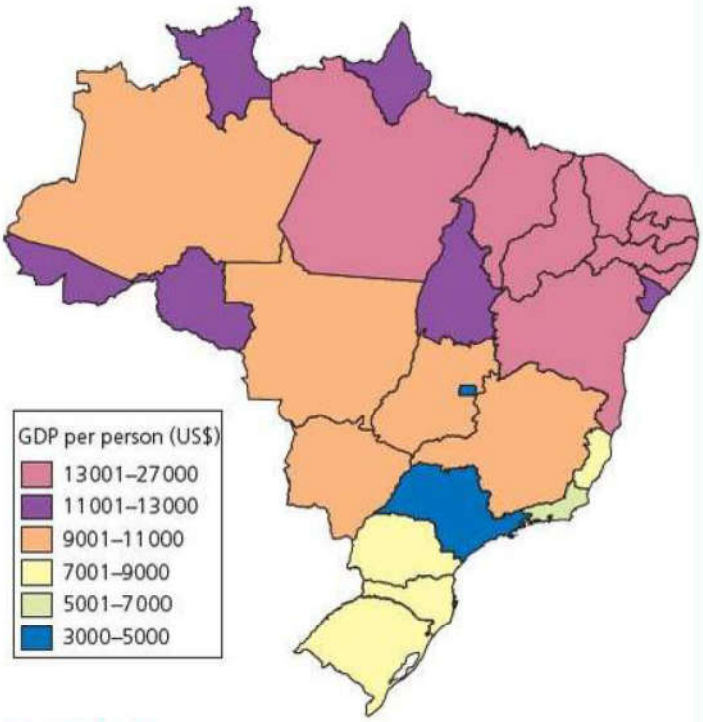


Figure 14.48 Brazilian states by GDP per person, 2014

Intra-urban variations: the growth of slums and urban poverty

Residence as a factor in inequality within countries can also be examined at a more detailed scale (Figures 14.49 and 14.50). The focus of such analysis has been on intra-urban variations and the large number of people living in slum housing: 32 per cent of the world's urban population – almost 1 billion people – are housed in slums, with the great majority living in LICs. A **slum** is a heavily populated urban area characterised by substandard housing and squalor. However, virtually all large cities in HICs also have slum districts. The UN recognises that the focus of global poverty is moving from rural to urban areas, a process known as the **urbanisation of poverty**. Without significant global action, the number of slum dwellers will double over the next 30 years. The urban poor live in inner-city slums, peripheral shanty towns and in almost every other conceivable space, such as on pavements, traffic roundabouts, under bridges and in sewers.

Figure 14.49 *Favela* in São Paulo

Figure 14.50 The middle-income Jardins district of São Paulo

The numbers of people living in urban poverty are increased by a combination of economic problems, growing inequality and population growth, particularly growth due to in-migration (Figure 14.51). As 'The Challenge of Slums' (UN HABITAT, 2003) states: 'Slums result from a combination of poverty or low incomes with inadequacies in the housing provision system, so that poorer people are forced to seek affordable accommodation and land that become increasingly inadequate.' The report identifies women, children, widows and female-headed households as the most vulnerable among the poor. In urban African slums, women head over 30 per cent of all households.

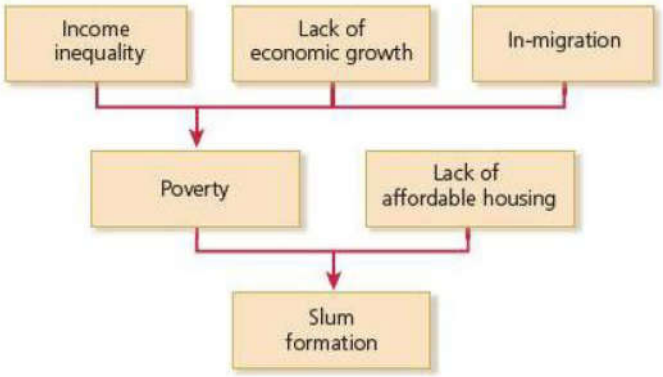


Figure 14.51 Slum formation

'The Challenge of Slums' groups the dimensions of urban poverty as follows:

- **Low income** – consisting of those who are unable to participate in labour markets and lack other means of support, and those whose wage income is so low that they are below a nominal poverty line.
- **Low human capital** – low education and poor health; health 'shock' in particular can lead to chronic poverty.
- **Low social capital** – this involves a shortage of networks to protect households from shocks, weak patronage on the labour market, labelling and exclusion; this particularly applies to minority groups.
- **Low financial capital** – lack of productive assets that might be used to generate income or avoid paying major costs.

Figure 14.52 sums up the constituents of urban poverty. The complexities of urban poverty indicate how difficult it is for individuals to improve their socio-economic situation. In many countries, social mobility has become more difficult rather than easier in recent times.

- Inadequate income (and thus inadequate consumption of necessities including food and, often, safe and sufficient water; often problems of indebtedness, with debt payments significantly reducing income available for necessities).
- Inadequate, unstable or risky asset base (non-material and material including educational attainment and housing) for individuals, households or communities.
- Inadequate shelter (typically poor quality, overcrowded and insecure).
- Inadequate provision of 'public' infrastructure (e.g. piped water, sanitation, drainage, roads, footpaths) which increases the health burden and often the work burden.
- Inadequate provision for basic services such as daycare/ schools/ vocational training, healthcare, emergency services, public transport, communications, law enforcement.
- Limited or no safety net to ensure basic consumption can be maintained when income falls; also to ensure access to shelter and healthcare when these can no longer be paid for.
- Inadequate protection of poorer groups' rights through the operation of the law, including laws and regulations regarding civil and political rights, occupational health and safety, pollution control, environmental health, protection from violence and other crimes, protection from discrimination and exploitation.
- Voicelessness and powerlessness within political systems and bureaucratic structures, leading to little or no possibility of receiving entitlements.

Source: Paul Guinness, 'Slum Housing Global Patterns Case Studies' *Geo Factsheet* No 180, Curriculum Press

Figure 14.52 The constituents of urban poverty

Section 14.3 Activities

1. Explain the processes illustrated in Figure 14.47.
2. Produce a graph to illustrate the regional breakdown of Brazil's population (Table 14.7).
3. Examine the factors that lead to the formation of slums in LICs (Figure 14.51).
4. Compare Figures 14.49 and 14.50, which show different residential districts in São Paulo.
5. Discuss the constituents of urban poverty shown in Figure 14.52.

Ethnicity and employment

The development gap often has an ethnic and/or religious dimension whereby some ethnic groups in a population have income levels significantly below the dominant group(s) in the same population. This is often the case with **indigenous populations**. It is invariably the result of discrimination, which limits the economic, social and political opportunities available to the disadvantaged groups. Examples include South Africa, Indonesia and Bolivia. Because of such obvious differences in status, tensions can arise between majority and minority groups, resulting in:

- social unrest
- migration
- new political movements.

In South Africa, the wide gap in income originated in the apartheid era, but since then it has proved extremely difficult to close for a variety of reasons. Political change often occurs well in advance of significant economic and social change. Figure 14.53, using data from the 2011 Census, shows that average annual household income for black people was R60613 ($4400). This was about one-sixth that of white households, and a quarter of that of Asian households.

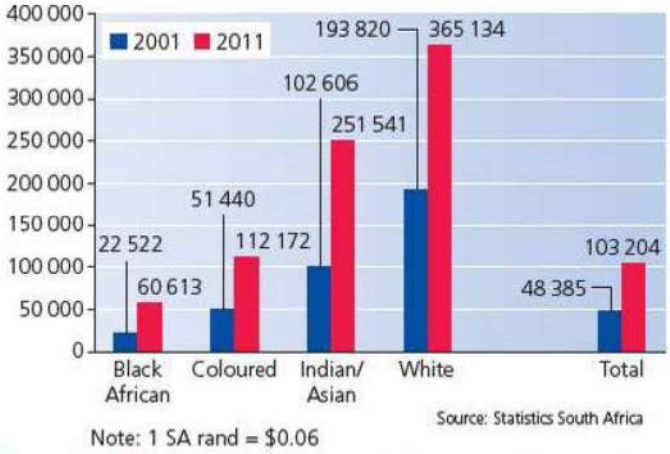


Figure 14.53 Average annual household income (SA rand) by population group of household head in South Africa

Inequality of wealth distribution is higher in Latin America than in any other part of the world. Indian and black people make up a third of the population, but have very limited parliamentary representation. Figure 14.54 shows the situation in five Latin American countries in 2005, prior to political transformation in Bolivia. The changes that have occurred in Bolivia have given hope to indigenous peoples elsewhere in Latin America. Such ethnic differences often have a strong regional component, as ethnic groups tend to concentrate in certain rural and urban areas.

Indians and black people – poorly represented in parliament

In Ecuador, Guatemala and Peru, indigenous people make up 34–60 per cent of the population but have had few seats in parliament. Even in Bolivia the majority Indian population only has 26 per cent of seats – though its power to change government policy through mass protest has been growing, an alarming development for governments fearful of 'mob rule'. Part of the popular enthusiasm for Hugo Chávez – and the fear and loathing he inspires in traditional elites – arises from the fact that he is part Indian and part black, thus representing two of the most disadvantaged groups in Latin American history.

Country (ethnic group)	% of population	% representation in lower house
Bolivia (indigenous)	61	26
Ecuador (indigenous)	34	3
Guatemala	60	12
Peru (indigenous)	43	1
Brazil (African descent)	44	3

Figure 14.54 Indians and black people in South America – poorly represented in parliament

Education

Education is a key factor in explaining disparities within countries. Those with higher levels of education invariably gain better-paid employment. In LICs, there is a clear link between education levels and family size, with those with the least education having the largest families. Maintaining a large family usually means that saving is impossible and varying levels of debt likely. In contrast, people with higher educational attainment have smaller families and are thus able to save and invest more for the future. Such differences serve to widen rather than narrow disparities. Educational provision can vary significantly not just by social class, but also by region.

Brazil has a greater disparity in income levels than most other countries. An important research study in the late 1990s concluded that the main cause was the huge variation in access to education. One of the authors of the study, Ricardo Paes de Barros, stated: 'There are not two Brazils. The poor and the rich live together in the same cities. They often work in the same multinational companies. The problem is that their educational background is absurdly unequal, and this results from the very poor quality of the public basic education system.' The report concluded that educational attainment explains 35–50 per cent of income inequality.

Figure 14.55 shows the population of secondary education or higher by region. The highest percentage is in the south east and the lowest in the north east. In the SAEB (Portuguese and mathematics) scores for students

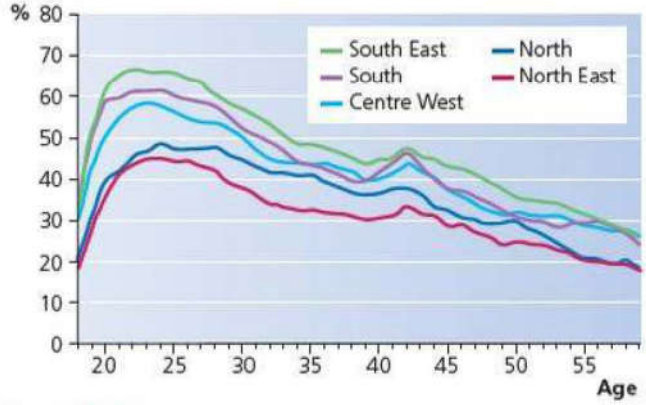


Figure 14.55 Percentage population of secondary education or higher in Brazil, by region

completing secondary education, the scores for 2005 had a regional ranking of:

1 South
2 South East
3 Centre West
4 North East
5 North

Land ownership (tenure)

The distribution of land ownership has had a major impact on disparities in many countries. It can have a significant regional component. The greatest disparities tend to occur alongside the largest inequities in land ownership. The ownership of even a very small plot of land provides a certain level of security that those in the countryside without land cannot possibly aspire to.

Case Study: Brazil – inequities in land ownership

The distribution of land in Brazil in terms of ownership has been a divisive issue since the colonial era. Then, the monarchy rewarded those in special favour with huge tracts of land, leaving a legacy of highly concentrated ownership. For example, 44 per cent of all arable land in Brazil is owned by just 1 per cent of the nation's farmers (Figure 14.56), while 15 million peasants own little or no land. Many of these landless people are impoverished roving migrants who have lost their jobs as agricultural labourers due to the spread of mechanisation in virtually all types of agriculture.

At least a partial solution to the problem is **land reform** (Figure 14.57). This involves breaking up large estates and redistributing land to the rural landless. Although successive governments have vowed to tackle the problem, progress has been limited due to the economic and political power of the big fazenda or farm owners, who have not been slow to use aggressive tactics (legal or otherwise) to evict squatters and delay expropriation.

In the mid-1990s, land reform clearly emerged as Brazil's leading social problem, highlighted by a number of widely publicised squatter invasions. Such land occupations have occurred in both remote regions and established, prosperous farmlands in the south and south east. Each year in April, the Landless Rural Workers' Movement (known as the 'MST')

Figure 14.56 Crop production in Brazil

organises a series of land invasions, takeovers of buildings and other protests. The purpose is twofold:

- to keep the issue high on the national political agenda
- to commemorate the killing in 1996 of 19 landless protesters by police in the state of Para.

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BRAZIL: MARCHING FOR REAL LAND REFORM

By Fabiana Frayssinet

RESENDE, Brazil, Aug 12 (IPS) – After 10 years of waiting for secure title to the land they occupy and farm, 35 families in Resende, in the southeastern Brazilian state of Rio de Janeiro, have joined a huge march organized by the Landless Workers Movement (MST) in Brasilia to demand effective agrarian reform.

Mario Laurindo knows all about protest demonstrations. Some 14 years ago, he and others in the MST set up a roadside camp and were evicted. For the past 10 years he and his family have lived in the "Terra Libre" (Free Land) settlement, 176 kilometres from the city of Rio de Janeiro, the state capital.

"We may grow old in the attempt, but we will continue the struggle," Laurino told IPS. A long time ago, he left the 'favela' (shantytown) where he lived, because he had no job, food or health care, and wanted to escape the high levels of urban violence.

Now, at least, he has plenty of food. With his wife and two children – they had two more, but they died – the family produces enough to subsist on, from honey to bananas. They also keep chickens and a few dairy cows.

Like other families in the settlement, Laurindo sells his surplus produce at a nearby town where he goes every day, crossing a river on boats built by another neighbour. Barter with other settlers complements the family diet.

"I'll never work for someone else again. Now I'm my own boss," says Laurindo, who has taken up the way of life of a small farmer and ekes out the family income with odd jobs such as bricklaying, but always on a self-employed basis, he stresses.

Like Osvaldo Cutis, a teacher and the spokesman for Terra Libre, Laurindo shares the goals of the settlements and of the MST, which is mobilizing 3,000 of its activists in Brasilia from Aug. 10–19.

The demonstration in the capital, which included marches, debates, cultural events and other activities, is an effort by the MST to put pressure on the government of leftwing President Luiz Inàcio Lula da Silva to distribute land within the next six months to at least 90,000 families who have been squatting in different parts of the country since 2003, many of them camping by the roadside.

The landless movement has carried out land occupations for the past 25 years "calling for fulfi llment of law," Cutis told IPS. It also seeks better living conditions for another 45,000 families "who have been resettled on paper only," and are "suffering hardship" because they are still waiting for resources for housing, infrastructure and production, he said.

People in the Terra Libre settlement are all too familiar with this situation, The state Institute for Agrarian Reform (INCRA) has not legalized their ownership of the land where they have lived "on a temporary basis" for over a decade because of red tape and endless battles over inheritance and compensation for expropriation in the courts.

Terra Libre occupies 460 hectares of an old estate, which was deemed unproductive according to offi cial criteria set out in the law on agrarian reform, and which owed its workers the equivalent of one million dollars before it was taken over by the MST.

The problem is that until they have legal title to the land, the settlers do not have access to credits and tools from INCRA. But according to MST, many families to whom the government has already granted title deeds have not yet received this assistance.

"It's hard to convince some farmers to put effort and work into a plot of land that they might be forced to leave tomorrow," Curtis said.

Source: www.ipsnews.net/2009/08/brazil-marching-for-real-land-reform

Figure 14.57 Marching for real land reform

Section 14.3 Activities

1 Summarise the data illustrated in Figure 14.53.
2 Describe the data presented in Figure 14.54.
3 With reference to Figure 14.55, explain how variations in educational attainment affect regional development.
4 Write a 100-word summary of the article on land reform in Brazil (Figure 14.57).
5 Suggest how land tenure can have an impact on regional disparities.

14.4 The management of regional development

Case Study: Canada

Canada is the second largest country in the world in land area after Russia. It is comprised of ten provinces and three territories (Figure 14.58) – that it crosses six time zones is a good indication of its size. Its greatest east–west expanse is 5200 kilometres; the greatest north–south distance is 4600 kilometres. For a country with such a large land area, Canada has a small population of only 35.5 million and huge variations in population distribution and density. The Canadian northlands make up that part of Canada lying north of 55 °N. Virtually the whole of this area has a population density of less than one person per km².

Figure 14.58 Map of Canada's 10 provinces and 3 territories

Canada is a country of major environmental contrasts, both east to west and north to south. As European settlers imposed themselves on the indigenous population, some regions offered far greater opportunities for settlement and economic activity than others, thus it is not surprising that regional differences in human well-being soon became apparent. Such differences have persisted to the present time, although over time they have lessened significantly in nature.

Much has been written on the causes and consequences of core–periphery contrasts in Canada. The urban–industrial core of the country is in the southern regions of Ontario and Quebec, where climatic conditions for agriculture and other activities are at their best. Canada's two main urban areas are Toronto and Montreal. Other important urban areas in this core region are Ottowa (the federal capital), Quebec, London and Windsor. All of these urban areas are located on or relatively close to the Great Lakes/Saint Lawrence Seaway – the system of locks, canals and channels that allow ocean-going ships to travel from Lake Superior to the Atlantic Ocean (Figure 14.59). The economic importance of this major routeway, both in terms of Canada's economic history and its economy today, cannot be underestimated. Canada's two other major routeways – the Trans-Canada Highway and Transcontinental railway system (Figure 14.60) are also of major economic importance. Table 14.8 shows all the metropolitan areas in Canada with a population of over 1 million.

Figure 14.59 Toronto, located beside Lake Ontario

Figure 14.60 Transcontinental railway travelling from Toronto to Vancouver at a stop in Manitoba

Table 14.8 The largest urban areas in Canada, 2011

Metropolitan area	Population (millions)
Toronto (Ontario)	5.58
Montreal (Quebec)	3.82
Vancouver (British Columbia)	2.31
Ottawa (Ontario)/Gatineau (Quebec)	1.24
Calgary (Alberta)	1.21
Edmonton (Alberta)	1.16

Source: Statistics Canada

A major urban sub-core is the Vancouver city region. Vancouver is Canada's third largest metropolitan area and its main port on the Pacific Ocean. The port is Canada's largest and most diversified. Vancouver ranks consistently as one of the highest quality of life urban areas in the world. It hosted the 2010 Winter Olympics and Paralympics.

The incidence of above-average incomes elsewhere in Canada, notably in Alberta, is due primarily to natural resource endowment. Also, with such a large proportion of the country located in the cold, inhospitable northlands, it is not surprising that Canada's core regions have a southern spatial bias.

In the literature on regional disparities in Canada, the main causal factors identified are:

- the huge size of the country
- the great contrasts in physical environment
- the uneven access to resources
- major contrasts in population density and distribution
- significant differences in secondary and tertiary employment opportunities
- large variations in the provision of transport infrastructure.

Table 14.9 presents a brief regional economic profile of Canada's provinces and territories, while Table 14.10 shows the current extent of reginal disparities in Canada.

Table 14.9 Regional profiles

Region	Characteristics
Ontario	The total GDP of Ontario is almost double that of Quebec, the next province in the economic rankings. Ontario is the industrial powerhouse of Canada. However, in recent decades Ontario has suffered from the negative impact of unstable US growth on the province's manufacturing sector, the global shift of some of its traditional industries to MICs, high fiscal deficits and rising debt. Such factors have restricted investment and innovation.
Quebec	Quebec's economy has been affected by problems similar to those in Ontario. Investment in Quebec has also been adversely affected by the political debate within the province regarding independence from the rest of Canada.
The Atlantic Provinces	The four Atlantic provinces have long been perceived as Canada's problem region. Three of these provinces – Nova Scotia, New Brunswick and Prince Edward Island – have the lowest per person incomes in the country. They have had weaker growth in GDP than the rest of the country for decades. Until the early 2000s, the remaining Atlantic province – Newfoundland and Labrador – was in a similar situation. However, the recent development of oil reserves has boosted per person incomes.
The Prairie Provinces	The Prairie provinces of Manitoba, Saskatchewan and Alberta form Canada's rich agricultural heartland. Three-quarters of Canada's farmland lies in these provinces. The hot, dry summers favour wheat, but other farming activities include dairying, cattle ranching, feed grains and oilseed crops. Alberta also benefits from considerable energy resources that have resulted in a large increase in investment, employment and income growth. Between 1981 and 2013, Alberta's population increased by 76 per cent, compared to the Canadian average of 42 per cent. Alberta's total GDP is over twice that of the combined GDP of Saskatchewan and Manitoba.
British Columbia	British Columbia has the fourth largest economy in Canada. Its economy is largely resource-based. Vancouver, Canada's third largest urban area, is a major Pacific port and the terminus of the transcontinental railway. Vancouver is the headquarters of many western-based natural resource companies. Although only 5 per cent of the province is arable land, farm productivity is high. The climate and landscape encourage tourism (Figure 14.61).
The territories	The three territories are very sparsely populated. Their decision-making powers are those delegated to them by the federal government. Their combined GDP is only about 0.5 of the national total. Per person incomes are high, particularly in Northwest territories and the Yukon, because their economies are largely resource based. The economy of Nunavut is not as developed as the other two territories.

Figure 14.61 Tourists at Lake Louise, British Columbia

Table 14.10 Regional disparities

Region	GDP 2014 (US $million)	GDP per person (US $), 2014	Unemployment rate, 2013 (%)	Human Development Index, 2011
Canada	1420320	39960	7.1	0.908
Newfoundland & Labrador	24130	45600	11.4	0.894
PEI	4320	29560	11.5	0.877
Nova Scotia	28130	29850	9.0	0.886
New Brunswick	23080	30580	10.4	0.882
Quebec	266400	32430	7.6	0.903
Ontario	519720	38000	7.5	0.913
Manitoba	46130	36030	5.4	0.885
Saskatchewan	59590	53100	4.0	0.898
Alberta	270490	65640	4.6	0.917
British Columbia	170740	36810	6.6	0.91
Northwest territories	3410	77400	6.8	0.911
Yukon	1870	50640	7.1	0.889
Nunavut	1790	49590	13.4	0.820

Regional development policies

For over half a century, Canada has had an explicit regional development policy whereby the federal government has been committed to reducing as far as possible the differences in living standards between its provinces and territories.

Prior to the 1950s, no explicit federal regional policy had been pursued in Canada, although certain programmes such as the Prairie Farm Rehabilitation Act had firm regional implications. The first direct effort to compensate for regional disparities was the equalization program established in 1957. A number of phases in the development of regional development policy have been identified:

Phase 1: the equalization program

Equalisation is based on the concept that the federal system should enable every province to provide services of average Canadian standards to its population without having to impose heavier than average tax burdens. Although equalization remains an integral part of the federal system, critics argue that it is not a regional development programme in the true sense, in that payments are not conditional on development use of the funds. Since 1957, the annual equalisation transfers to low-income provinces have risen from US$100 million to $12 billion in 2013–14.

In 2013–14, six provinces received equalization payments from the federal government as follows: Quebec $5.6 billion, Ontario $2.3 billion, Manitoba $1.3 billion, New Brunswick $1.1 billion, Prince Edward Island $0.3 billion. The following provinces did not qualify for equalization payments: Alberta; Saskatchewan; Newfoundland and Labrador; and British Columbia.

Phase 2: the introduction of regional incentives

This second phase of policy was initiated by a New Products Program for surplus manpower areas, which began in 1960 to help areas of high unemployment and slow economic growth. The scheme allowed firms to obtain double the normal rate of capital cost allowances on most of the assets acquired to manufacture products that were new to designated areas. This use of tax incentives mirrored existing schemes in a number of European countries. The Agriculture and Rural Development Act (ARDA) of 1961 was designed to alleviate the high incidence of low incomes in rural areas through federal–provincial programmes to increase small farmers' output and productivity.

A totally area-specific scheme was established by the Atlantic Development Board (ADB) in 1962 to improve the economic structure of the Atlantic provinces, the poorest part of Canada. A similar agency was established in Quebec in the form of the Eastern Quebec Development Board.

Phase 3: the Department of Regional Economic Expansion

DREE was established in 1969 to assist the various regions to realise their economic and social potential and to provide the national coordination frequently lacking from earlier schemes. The emphasis was placed on areas that had the potential for significant economic growth. In 1972, a new level of federal–provincial cooperation emerged with the introduction of General Development Agreements (GDAs). These ten-year programmes covered a wide range of development projects.

Phase 4: the Department of Regional Industrial Expansion

During the 1970s, DREE's regional development approach was increasingly considered to be too restricted in scope. In 1982, a new strategic approach was announced. The Department of Regional Industrial Expansion (DRIE) was set up, merging the regional programmes of the existing DREE with the industry, small firms and tourist components of the Department of Industry, Trade and Commerce. The revised

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federal–provincial agreements became known as Economic and Regional Development Agreements.

- **Phase 5: new policy directions**

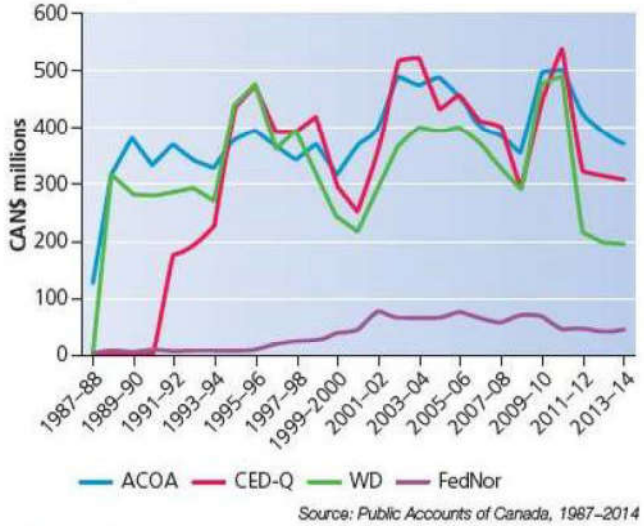
  There was growing recognition that, despite a variety of efforts over the previous 25 years, unacceptable levels of regional disparity continued to exist. These concerns led to a fundamental restructuring of regional development policy announced in 1986. Significantly, there was a decentralisation away from Ottawa, the federal capital, to give regional agencies the primary responsibility for development within their local area. In 1987, the new policy resulted in the creation of three major regional development agencies:
  - Atlantic Canada Opportunities Agency (ACOA)
  - Western Economic Diversification (WD)
  - Federal Economic Development Initiative in Northern Ontario (FedNor).

  In 2005, the Canadian Economic Development Agency for the Regions of Quebec (CED-Q) was established to carry on development activities in Quebec from previous agencies. In 2009, two new regional agencies were established to bring the total to six. These were:

- The Federal Economic Development Agency for Southern Ontario
- The Canadian Northern Economic Development Agency

Figure 14.62 shows the level of funding for four of the major development agencies. For example, Western Economic Diversification Canada recently launched the Western Innovation Initiative. This is a $70 million, five-year programme that offers repayable contributions for small and medium-sized enterprises, for developing new and innovative technologies from the later stages of research and development to the marketplace. There has been a renewed focus on rural development, particularly support for the development of rural businesses.

During this latter phase of regional development policy, there has been a general desire to move from what has generally been termed a 'top-down' strategy to one that is more 'bottom-up' in nature.



Source: Public Accounts of Canada, 1987–2014

Figure 14.62 Funding for the four original major development agencies – note that CAN$1 is about US$0.70

A general trend towards convergence

Economic data clearly shows that over the last 50 years or so there has been a broad tendency towards regional economic convergence. However, there have been periods when this general trend has been interrupted and reversed; notably:

- in the early 1980s
- from the early 2000s to the present time.

The main causal factors for these reversals have been identified as periods of rapidly rising commodity prices and periods of global economic uncertainty, particularly the global economic downturn that began in 2008. For example, high oil prices benefit the oil-producing provinces – namely Alberta, Saskatchewan and Newfoundland and Labrador – but they push up costs for the non-oil-producing provinces.

Disparities: interprovincial or urban/rural?

Urbanisation has often been put forward as an important factor to explain variations in economic development due to the high concentration of investment and innovation in large urban areas. A recent analysis of regional disparities in Canada concluded that regional disparities are as much, if not more, urban/rural than interprovincial in nature. The three largest metropolitan areas of Toronto (Ontario), Montreal (Quebec) and Vancouver (British Columbia) are by far the largest urban–industrial structures in the country. This analysis argued that:

- the absence of large metropolitan areas in a number of provinces put them at a disadvantage in both fiscal and development terms
- future regional policies should give more recognition to the importance of urbanisation in explaining disparities
- further research was needed to identify other sources of disparity, such as industrial structure
- regional differences play an important part in economic, cultural and political life
- the need for regional assistance in the form of equalization and other measures remains.

The Atlantic Provinces: Canada's main problem region

The four provinces of New Brunswick, Nova Scotia, Prince Edward Island and Newfoundland and Labrador make up the region of Atlantic Canada. Long regarded as the major problem region of the country, the provinces are characterised by slow economic growth, heavy reliance on primary industries, low per person incomes and persistently high unemployment rates. In an attempt to rectify such relative deprivation, the region has figured prominently in Canadian regional development programmes. Although this injection of federal funding has resulted in significant improvements covering many aspects of the regional economy, the Atlantic provinces still lag behind the rest of the nation according to most socio-economic indicators. It has been the recent development of oil resources that has changed the situation in Newfoundland and Labrador over the last decade or so.

Development in the Atlantic provinces has been hindered by a number of factors, particularly the paucity of natural resources, the low level of manufacturing industry and capital

investment and the scattered nature of rural settlement. Although the provinces are the most rural of Canada's regions, the generally infertile soils and cool summers have restricted agricultural improvement. A consequence of such a lack of agricultural potential is the highest percentage of rural non-farm population in the country.

The principal urban nuclei of the region are the seaports of Halifax in Nova Scotia, St John's in Newfoundland and St John in New Brunswick. However, these urban areas had populations of only 390 000, 197 000 and 128 000 respectively in 2011. The region's major urban nuclei account for the lowest percentage of population for any region of the country. Such a small and dispersed population provides a very limited attraction for industries attempting to achieve economies of scale. Low capital intensity in the private sector and poor public services have often been cited as disincentives to new industry.

ACOA initiatives include investment to build industrial clusters that can anchor maritime innovation, including ocean technologies, aquaculture, bio-technology and environmental technology.

Indigenous peoples

While not a regional issue in the conventional sense, the relatively low standard of living of indigenous peoples affects some regions far more than others. The indigenous or Aboriginal peoples of Canada comprise the First Nations, Inuit and Metis. According to the 2011 census, they totalled 1.4 million; that is, 4.3 per cent of the national population. In terms of regional concentrations, the highest percentages of province or territory populations are in Nunavut (86 per cent), Northwest territories (52 per cent), Yukon (23 per cent), Manitoba (17 per cent) and Saskatchewan (16 per cent). The largest numbers of indigenous people are in Ontario (301 000), British Columbia (232 000), Alberta (220 000) and Manitoba (200 000).

The living conditions of indigenous peoples fall well below the Canadian norm. The pressure group Amnesty International has identified:

- widespread impoverishment
- inadequate housing
- food insecurity
- ill health
- unsafe drinking water.

There is considerable pressure on the federal and provincial governments to do more to raise the living standards of indigenous peoples to the Canadian norm.

Conclusion

Canada displays large regional variations that have persisted over time despite considerable government attempts to reduce these differences. However, advocates of regional development funding argue that the development gap would be much larger than it is in the absence of such funding. The general trend is towards regional economic convergence, but there have been significant interruptions to this trend.

There will always be differences of opinion about how best to spend government money. There is continued debate about whether resources should be focused on regions where growth can be created most successfully or whether it should be concentrated on the least favoured regions. Continuing research into factors such as urban/rural disparities and industrial structure should help to target funding more successfully in the future.

Section 14.4 Activities

1 a Where is Canada's main economic core region?
  b What are the reasons for its geographical location?
2 Suggest reasons for the development of an economic sub-core around Vancouver.
3 Comment on the regional disparities shown in Table 14.10.
4 Describe the main changes in regional policy since the 1950s.
5 Why are the Atlantic provinces considered to be Canada's number one problem region?

Appendix

Resources for the Geographical Skills Workbook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Sturdivant Point
Johnson Point
Cheops Pyramid
Phantom Canyon
The Box
Sumner Point
Sumner Butte
Bright Angel Canyon
Kaibab Suspension Bridge
Silver Bridge
Granite Gorge
Pipe Point
Dana Butte
The Tipoff
Natural Arch
Indian Garden
The Alligator
The Inferno
Hopi Point
Powell Point
The Battleship
Mohave Point
Hopi Wall
Maricopa Point
Yavapai Point
O'Neill Butte
Cedar Ridge
Grandview Point
Mather Point
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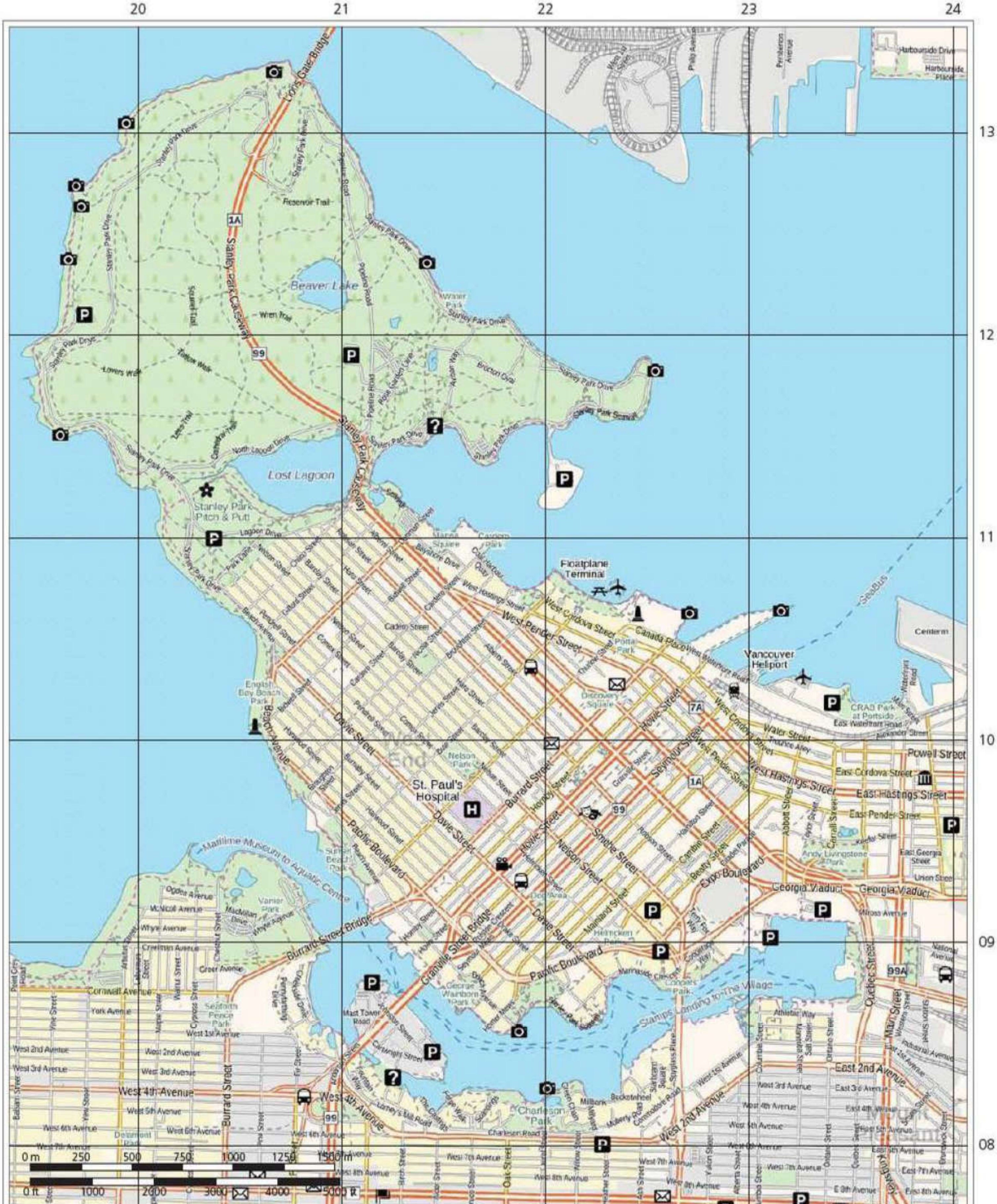
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Lions Gate Bridge
Stanley Park Causeway
Beaver Lake
Lost Lagoon
Stanley Park Pitch & Putt
Stanley Park Drive
Reservoir Trail
Wren Trail
North Lagoon Drive
Lagoon Drive
Floatplane Terminal
West Cordova Street
West Pender Street
Canada Place
Vancouver Heliport
Discovery Square
English Bay Beach Park
Beach Avenue
Davie Street
West End
Nelson Park
St. Paul's Hospital
Burrard Street
Howe Street
Seymour Street
Nelson Street
Smithe Street
Expo Boulevard
Pacific Boulevard
West Hastings Street
Water Street
Powell Street
East Cordova Street
East Hastings Street
East Pender Street
Georgia Viaduct
Andy Livingstone Park
Maritime Museum to Aquatic Centre
Vanier Park
Ogden Avenue
Burrard Street Bridge
Granville Street Bridge
Cornwall Avenue
York Avenue
West 1st Avenue
West 2nd Avenue
West 3rd Avenue
West 4th Avenue
West 5th Avenue
West 6th Avenue
West 7th Avenue
West 8th Avenue
West 10th Avenue
Charleson Park
Charleson Road
Stamps Landing to The Village
Athletic Way
East 2nd Avenue
Main Street
Quebec Street
Kingsway
East Broadway
Centerm
CRAB Park at Portside
National Avenue
Oak Street
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Satellite images of the Aral Sea

1989 (left) and 2014