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THE ROLE OF THE STATE IN ECONOMIC DEVELOPMENT

Introduction

The central issue facing all economies is how to allocate resources among competing uses. This question takes on more significance in developing countries than in developed countries because resources are scarcer, the basic needs of people are greater, and the market mechanism as a device for resource allocation has many more imperfections. In this chapter, we first review the role of the market mechanism as an efficient device for resource allocation, and the various imperfections and failures that markets may suffer from, which might be corrected by the state. Four roles for the state are identified: to provide public goods, to eliminate divergences between private and social costs and benefits (which arise because market prices do not reflect the social costs and benefits of goods and factors of production), to protect the vulnerable because the market mechanism does not guarantee an equitable distribution of income, and to provide an institutional environment in which markets can flourish.

But there can be state failures as well as market failures. Corruption is endemic in many poor countries, and there are at least 50 countries in the world classified as **failed states** that hardly function at all, politically or economically.

Finally, the role of planning in developing countries is discussed and some of the broader policy issues confronting decision-makers, including types of planning, the balance between agriculture and industry, the choice between consumption today and consumption tomorrow, pursuing (or not) the law of comparative advantage, techniques of production, and the debate over whether growth should be balanced or deliberately 'unbalanced'.

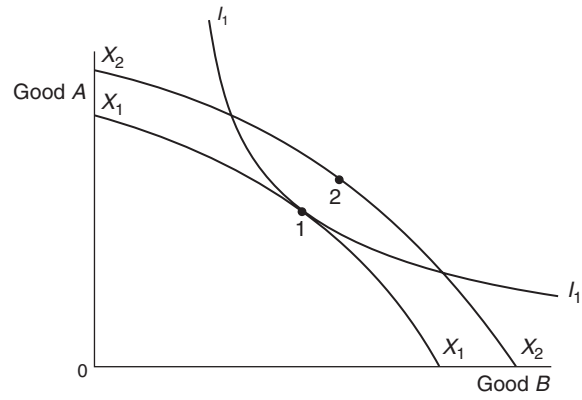
The market mechanism and market failures

In free-market economies, resources are allocated by Adam Smith's 'invisible hand' of the market in accordance with consumer demand. The market is the organizational framework that brings together those who supply and those who demand a product, who then trade at an agreed price. In a completely free market, the price will clear the market so there are no unsatisfied buyers and sellers. Decision-making about what is produced is decentralized and left to the market, comprising the decisions of myriad private individuals. If the demand for a good increases, the price will rise and producers will be induced to supply more; if demand falls, the price will fall and producers will supply less. Market prices act as **signals** to producers to supply more or less of a commodity according to the changing profitability of production. The efficiency of markets relies on prices acting as signals, on suppliers responding, and on the mobility of the factors of production enabling supply to be forthcoming.

This brings us to one of the most important theorems in welfare economics: if consumers consume to the point where the marginal utility of consumption is equal to the price of a good, and producers produce to the point where the marginal cost of production is equal to price, then resources will be optimally allocated, since the marginal utility of production will just equal the marginal cost. Society will have reached its highest level of utility consistent with its production possibilities. This is illustrated in Figure 9.1.

The curve I_1I_1 is society's indifference curve between two goods, *A* and *B*, representing the highest utility attainable, and X_1X_1 is a country's production possibility curve between the two goods, *A* and *B*. Point 1 represents the optimum allocation of resources between the two goods. Any point to the left or right of point 1, or inside the production possibility curve, would represent a lower level of utility.

Figure 9.1 Welfare maximization



The allocation role of markets is, however, only one of the functions of the market mechanism. To use a distinction introduced by Kaldor (1972), the market also has a *creative* function, to provide an environment for change that expands production possibilities – that is, which shifts the production possibility curve outwards to X_2X_2, enabling a higher level of utility at point 2. An environment for change means all the dynamic forces that lead to technical progress, innovation and, ultimately, investment. In the early stages of development, the creative function of markets, producing new opportunities for growth, may be just as important as the allocative function of markets.

The conditions required for markets to perform their allocative and creative functions in an optimal manner are very stringent, and are unlikely to be satisfied in any economy, let alone developing countries. The true benefit of output may not be reflected in price because of **externalities**; price may not reflect marginal cost because of **market imperfections**; and many developmental goods and services may not be produced at all because **markets are incomplete or missing** entirely, and therefore cannot perform their creative function. In other words, there are likely to be **market failures**.

In addition, there is the problem that there is nothing in the market mechanism that guarantees an equitable distribution of income in society, or that will direct adequate resources away from present consumption to build up the means of production for a higher level of consumption in the future.

In the past, all these types of market failure have led development economists to argue for government intervention in the development process, as well as leading most developing countries to interfere with the market mechanism and to adopt various forms of planning for the allocation of resources. In the former Soviet Union and the countries of Eastern Europe, planning superseded the market mechanism entirely, and output and resource allocation was decided by bureaucrats, not by consumers. In other countries, governments produced plans for the sectoral allocation of resources and took on more and more functions. In the latter half of the twentieth century, there was an explosion of government expenditure in developing countries, rising to over 30% of national income on average and to over 50% in some countries.[1]

In recent years, however, there has been disillusion with planning, and the role of the state has come under increased scrutiny for a number of reasons:

1. There was the collapse of the former state-planned, communist countries of the Soviet Union and Eastern Europe. What to put in their place? Most of these former command economies

have swung to the other extreme, embracing the market mechanism almost unconditionally, with other damaging consequences relating to growing income inequality and unemployment.
2. In many developing countries, the state has failed to deliver even the most fundamental public goods, such as law and order and property rights, and essential social capital and infrastructure, such as education, health facilities and transport.
3. Civil strife has caused the collapse of the state in a number of countries, particularly in Africa, leaving markets to operate in an institutional vacuum.
4. Many countries have found themselves in fiscal crisis – associated with mounting expenditure on the welfare state in developed countries, and huge public enterprise deficits in developing countries.
5. There is a fascination with the enabling role that the state has played in the successful developing countries of Southeast Asia – in Japan and the Asian tigers of Hong Kong, Singapore, Taiwan and South Korea. Can the East Asian model be copied?

Surveying the experience of developed and developing countries in the years since 1945, the message would seem to be that the state has a vital role to play in economic development, but not so much as a direct provider of goods and services; rather as the agency through which market failures can be rectified and as the architect of a framework in which markets can flourish and evolve. History shows that markets can come into existence without government intervention, but markets work incrementally. It takes time for price signals to be recognized, for people to respond to incentives, and for resources to be (re)allocated efficiently. This does not mean that the state should step in and do everything. There is a middle way between state-led, central planning on the one hand, and the minimal state espoused by extreme free-marketeers on the other. The bad experience of government planning in Eastern Europe should not blind us to the market failures mentioned earlier. The way forward in most developing countries must be a judicious mix of market capitalism combined with state intervention. Let us now consider in more detail the role the state can play in correcting these market failures.

The role of the state

The state has four key roles to play in the development process:

1. To provide public goods.
2. To correct market imperfections.
3. To protect the vulnerable and ensure an equitable distribution of income, both intra-temporally (between people at a point in time) and inter-temporally (between generations over time).
4. To provide an institutional environment in which markets can flourish, including the maintenance of macroeconomic stability.

Public goods are goods that have certain characteristics that make it difficult, if not impossible, to charge for them, and therefore private suppliers will not provide them. These characteristics are:

1. Consumption by one user does not reduce the supply available for others – the good is **non-rival**.
2. Users cannot be prevented from consuming the good – the good is **non-excludable**.

There are not many *pure* public goods (air is perhaps the purest of all) but there are others that come close and are important for economic development, such as defence, law and order, and the provision of basic infrastructure such as roads, railways, power supply, sewers and clean water.

A market in defence, or laws governing property rights that benefit the whole nation, is not conceivable. Markets in some infrastructural facilities are conceivable, but not very likely because of the high fixed costs. Also, the providers might have difficulty in charging for, and capturing, the externalities. The market would either not provide at all, or it would underprovide.

Market imperfections refer to three important phenomena. First, market prices may provide a very imperfect guide to the *social* optimum allocation of resources, because they do not reflect the opportunity costs to society of using factors of production, or the value to society of the production of commodities. The price of labour may be above its opportunity cost and therefore used too little. The price of capital and foreign exchange may be below the opportunity cost and therefore used too much from a social point of view. Likewise, the price of goods may not reflect the marginal cost of production. Monopolies, tariffs, subsidies and other imperfections in the market all distort free-market prices, on which private producers base their production decisions.

Second, there is the existence of **externalities**, both positive and negative, which means that some goods may be underprovided and others overprovided from a social point of view because the positive or negative externality is not reflected in the price. Most infrastructure projects, such as transport facilities, power generation, irrigation schemes and so on, and social capital, such as education and health facilities, will have greater social returns than the private return and will therefore be underprovided from a social point of view unless private suppliers in the market are compensated or subsidized. Other activities may produce negative externalities by imposing costs on society that are not paid for by the provider, and therefore the market oversupplies from a social point of view. Governments can curb negative externalities through regulation or taxation, and promote positive externalities through subsidies or providing the output itself, as with education and healthcare.

Third, markets may be incomplete or missing altogether. One good reason why markets may be missing in the case of public goods is the inability of suppliers to exclude **free-riders**, that is, to exclude people from consuming the good once it is provided. But there are other important reasons for incomplete or missing markets. For example, high transaction costs can prevent markets from developing, particularly in developing countries, where poor communications make information costs high and there is an absence of futures markets to compensate for risk in conditions of uncertainty. The actual cost of providing a good or service may be less than individuals are willing to pay, but imperfect information on the part of consumers leads to an undervaluation of the product and therefore restricted supply, for example preventive healthcare. In this sense, the market is incomplete.

Asymmetric information, adverse selection and **moral hazard** can also lead to market inefficiency. 'Asymmetric information' refers to the imbalance of knowledge in a market between buyers and sellers. In the market for bank loans, for example, the borrowers know more about their own circumstances than the lenders. Banks could make bad loans ('adverse selection'), which makes them cautious and leads to credit rationing. It would be very costly for banks to obtain all the information they require on high-risk customers. The informal money market compensates by charging very high interest rates for all. Another example would be the health insurance market, where individuals know more about their health than the suppliers of insurance. Those who know they are prone to illness are more likely to take out insurance, and more likely to be turned down. 'Moral hazard' is present when the possession of insurance encourages the activity that is insured against, leading to resource waste and higher costs (and higher insurance premiums for all). Governments may step in by regulating private insurance, or providing the service themselves at lower cost.

As far as **equity** is concerned, the state has an important role to play in protecting the vulnerable and ensuring an equitable distribution of income between people, between groups in society, between regions and across generations. There is not only a moral case for the state to help those in absolute poverty, but also a strong political and economic one. Poor, vulnerable and disaffected people can be a major cause of civil unrest and political instability (Stewart, 2001). This deters investment and growth. It is also important for the state to keep an eye on the welfare of future generations, which may require altering the balance between consumption and investment in the present. There are a number of ways in which governments can intervene to discourage present consumption and raise the level of investment for higher future consumption; examples are taxation, subsidized interest rates and public investment on society's behalf.

Finally, the state is essential for providing the appropriate **institutional environment** for markets to flourish and operate efficiently (see Chapter 8). In this sense, markets and government intervention are complementary. The World Bank's (1997) *World Development Report 1997: The State in a Changing World* conveys three principal messages:

1. Development (economic, social and sustainable) without an effective state is impossible. It is increasingly recognized that an effective state – not a minimal one – is central to economic and social development, but more as partner and facilitator than director. States should work to complement markets, not replace them.
2. A rich body of evidence shows the importance of good economic policies (including the promotion of macroeconomic stability), well-developed human capital, and openness to the world economy for broad-based, sustainable growth and the reduction of poverty. But, as our understanding of the ingredients of development improves, a deeper set of questions emerges: Why have some societies pursued these actions with greater success than others, and how precisely did the state contribute to these differing outcomes?
3. The historical record suggests the importance of building on the relative strengths of the market, the state and civil society to improve the state's effectiveness. This suggests a two-part strategy of matching the role of the state to its capability, and then improving that capability.

The *World Development Report 1997* (World Bank, 1997) argues that many developing countries are not performing their core functions properly. They are failing to protect property, to ensure law and order, and to protect the vulnerable, all of which causes unrest and leads to a lack of government **credibility**. Its survey of 69 countries shows that government credibility is highest in South and Southeast Asia, and lowest in sub-Saharan Africa and the states of the former Soviet Union (World Bank, 1997). Investment and growth are positively related to credibility. The report says of Africa that many countries are 'trapped in a vicious circle of declining state capability and thus declining credibility in the eyes of their citizens – leading to increased crime and an absence of security affecting investment and growth' (World Bank, 1997). It refers to a 'crisis of statehood' in Africa, and a lower 'state capability' than 50 years ago. In contrast, it praises the countries of Southeast Asia because they have paid attention to the institutional framework for markets to fulfil their various roles in allocating and augmenting resources. State credibility is particularly important if developing countries are to attract private foreign investment.

The World Bank (1997) outlines a two-pronged strategy for governments to increase their credibility and the effectiveness of the state: first, governments must match the role of the state to its capabilities and not try to do too much, and second, they must try to improve capabilities by reinvigorating state institutions. With regard to the first prong of the strategy, the state should concentrate on getting the basics right, such as safeguarding property rights and guaranteeing the rule of law, rather than trying to do too much. In many countries, there is overregulation and

excessive state consumption. Governments should decide more carefully what to do and how to do it. The basics should be:

- law and order
- maintaining macroeconomic stability
- investing in basic social services and infrastructure
- protecting the vulnerable
- protecting the environment.

But the state does not have to be the *sole* provider of all infrastructure and social services. It can contract these services out to the private sector and introduce competition into their provision, coupled with a regulatory framework to protect consumers and workers. Neither does the state have to be the monopoly supplier of public utilities such as electricity, gas and telecommunications. These activities can be **privatized** with state supervision. Privatization has gathered pace throughout the world in recent years. There have been thousands of divestitures of state companies in developing countries and in the former communist countries of Eastern Europe. The motivation has been the generally poor economic performance of state-owned companies, the large deficits of public enterprises, and the promotion of competition to improve the delivery of services.

Beyond the basics, the state may want to intervene strategically – in industrial policy, for example, if it has the capability, as the successful Asian tiger economies have done. The past success of Hong Kong, Singapore, Taiwan and South Korea has depended on the state and the private sector working in harmony with each other, with the state providing the economic and legal environment for markets to flourish but with the government taking an entrepreneurial role and intervening where it thought necessary. In Hong Kong, the state took a leading role in planning infrastructure and providing subsidized housing to maintain social stability and to reduce the cost of labour. Singapore, Taiwan and South Korea targeted financial assistance to specific industries and even specific companies (with an emphasis on exports), with spectacular success.

On the second strategy of improving the capabilities of the state and reinvigorating state institutions, the task is to provide incentives for public officials to perform better and reduce the scope for arbitrary action that could lead to poor decision-making and corruption.

Corruption

Corruption is a serious issue in many developing countries. An organization based in Germany called **Transparency International** publishes a yearly Corruption Perceptions Index based on surveys of businesspeople, risk analysts and perceptions of the general public, ranked on a scale 0–10 (the lower the index, the more corrupt). The results for 168 countries in 2015 are shown in Table 9.1.

Developing countries appear to be the most corrupt, although the same level of income (or development) is often associated with different levels of corruption. In general, poverty breeds corruption, and corruption can lead to severe inefficiencies in the functioning of economies (for a comprehensive survey, see Abed and Gupta (2002).

Daniel Kaufmann (2005) at the World Bank reckons that a country that improves its governance from a low average level (and reduces corruption) could triple its average per capita income in the long run, and effectively tackle illiteracy and infant mortality at the same time.

The World Bank (1997) defines corruption as 'the abuse of public office for private gain', including bribery, threats and 'kickbacks'. These are all aspects of **rent-seeking behaviour** that arise primarily because decisions over the allocation of resources are in the hands of politicians

Table 9.1 Transparency International's Corruption Perceptions Index, 2015

Rank	Index	Country	Rank	Index	Country	Rank	Index	Country
1	9.1	Denmark	37	5.6	Malta	76	3.8	Brazil
2	9.0	Finland	40	5.5	Cape Verde	76	3.8	Burkina Faso
3	8.9	Sweden	40	5.5	Costa Rica	76	3.8	India
4	8.8	New Zealand	40	5.5	Latvia	76	3.8	Thailand
5	8.7	Netherlands	40	5.5	Seychelles	76	3.8	Tunisia
5	8.7	Norway	44	5.4	Rwanda	76	3.8	Zambia
7	8.6	Switzerland	45	5.3	Jordan	83	3.7	Benin
8	8.5	Singapore	45	5.3	Mauritius	83	3.7	China
9	8.3	Canada	45	5.3	Namibia	83	3.7	Colombia
10	8.1	Germany	48	5.2	Georgia	83	3.7	Liberia
10	8.1	Luxembourg	48	5.2	Saudi Arabia	83	3.7	Sri Lanka
10	8.1	United Kingdom	50	5.1	Bahrain	88	3.6	Albania
13	7.9	Australia	50	5.1	Croatia	88	3.6	Algeria
13	7.9	Iceland	50	5.1	Hungary	88	3.6	Egypt
15	7.7	Belgium	50	5.1	Slovakia	88	3.6	Indonesia
16	7.6	Austria	54	5.0	Malaysia	88	3.6	Morocco
16	7.6	United States of America	55	4.9	Kuwait	88	3.6	Peru
18	7.5	Hong Kong	56	4.7	Cuba	88	3.6	Suriname
18	7.5	Ireland	56	4.7	Ghana	95	3.5	Armenia
18	7.5	Japan	58	4.6	Greece	95	3.5	Mali
21	7.4	Uruguay	58	4.6	Romania	95	3.5	Mexico
22	7.1	Qatar	60	4.5	Oman	95	3.5	Philippines
23	7.0	Chile	61	4.4	Italy	99	3.4	Bolivia
23	7.0	Estonia	61	4.4	Lesotho	99	3.4	Djibouti
23	7.0	France	61	4.4	Montenegro	99	3.4	Gabon
23	7.0	United Arab Emirates	61	4.4	Senegal	99	3.4	Niger
27	6.5	Bhutan	61	4.4	South Africa	103	3.3	Dominican Republic
28	6.3	Botswana	66	4.2	São Tomé and Principe	103	3.3	Ethiopia
28	6.3	Portugal	66	4.2	The FYR of Macedonia	103	3.3	Kosovo
30	6.2	Poland	66	4.2	Turkey	103	3.3	Moldova
30	6.2	Taiwan	69	4.1	Bulgaria	107	3.2	Argentina
32	6.1	Cyprus	69	4.1	Jamaica	107	3.2	Belarus
32	6.1	Israel	71	4.0	Serbia	107	3.2	Côte d'Ivoire
32	6.1	Lithuania	72	3.9	El Salvador	107	3.2	Ecuador
35	6.0	Slovenia	72	3.9	Mongolia	107	3.2	Togo
36	5.8	Spain	72	3.9	Panama	112	3.1	Honduras
37	5.6	Czech Republic	72	3.9	Trinidad and Tobago	112	3.1	Malawi
37	5.6	South Korea	76	3.8	Bosnia and Herzegovina	112	3.1	Mauritania

Table 9.1 Transparency International's Corruption Perceptions Index, 2015 – *continued*

Rank	Index	Country	Rank	Index	Country	Rank	Index	Country
112	3.1	Mozambique	130	2.7	Nicaragua	150	2.1	Cambodia
112	3.1	Vietnam	130	2.7	Paraguay	150	2.1	Zimbabwe
117	3.0	Pakistan	130	2.7	Ukraine	153	1.9	Uzbekistan
117	3.0	Tanzania	136	2.6	Comoros	154	1.8	Eritrea
119	2.9	Azerbaijan	136	2.6	Nigeria	154	1.8	Syria
119	2.9	Guyana	136	2.6	Tajikistan	154	1.8	Turkmenistan
119	2.9	Russia	139	2.5	Bangladesh	154	1.8	Yemen
119	2.9	Sierra Leone	139	2.5	Guinea	158	1.7	Haiti
123	2.8	Gambia	139	2.5	Kenya	158	1.7	Guinea-Bissau
123	2.8	Guatemala	139	2.5	Laos	158	1.7	Venezuela
123	2.8	Kazakhstan	139	2.5	Papua New Guinea	161	1.6	Iraq
123	2.8	Kyrgyzstan	139	2.5	Uganda	161	1.6	Libya
123	2.8	Lebanon	145	2.4	Central African Republic	163	1.5	Angola
123	2.8	Madagascar	146	2.3	Congo Republic	163	1.5	South Sudan
123	2.8	Timor-Leste	147	2.2	Chad	165	1.2	Sudan
130	2.7	Cameroon	147	2.2	Democratic Republic of the Congo	166	1.1	Afghanistan
130	2.7	Iran	147	2.2	Myanmar	167	0.8	North Korea
130	2.7	Nepal	150	2.1	Burundi	167	0.8	Somalia

Source: Transparency International, 2015.

and government officials. The existence of licences, permits, regulations, subsidies and, of course, taxes all offer scope for corruption. Corruption not only leads to inefficiency – particularly the discouragement of investment – but can undermine the legitimacy of government itself. Where corruption is endemic, policy-making in other areas is less effective and it makes it more difficult for governments to enforce laws in areas such as taxation or control of environmental damage (see Elliott (1997), Tanzi (1998) and Bardhan (1997) for case studies on corruption).

The International Monetary Fund (IMF) now specifies anti-corruption measures as one of the conditions for loan support. For example, the IMF recently got tough with the Kenyan government, insisting first on a 'wealth declaration law' that all government ministers and senior civil servants declare the full range of their assets and liabilities every year, and, second, on a weekly inspection by IMF officials in Washington of the Central Bank of Kenya's balance sheet to prevent foreign aid being used for private gain.

Removing unnecessary regulations and bureaucracy, increasing transparency, and paying officials higher salaries reduce the scope for corruption, but vested interests involved in corruption make the reform process more difficult. The *World Development Report 1997* (World Bank, 1997) outlines three essential ingredients for improving the capabilities of the state (and rooting out corruption):

1. There must be effective rules and restraints to check public authority and prevent corruption. Independence of the judiciary is important, and an independent commission against corruption would be helpful.

2. Public officials should be appointed on merit, not on the basis of political patronage, and can be encouraged to perform effectively through a merit-based promotion system and adequate remuneration. Opening up competition in employment in the delivery of services is necessary to reduce the discretionary power of state officials to minimize rent-seeking behaviour, which is the basis of bribery and corruption.
3. Decision-making needs to be brought closer to the people so that they have more confidence in the state. All government programmes are likely to work better if there is democracy, if power is devolved, and if users are consulted.

Figure 9.2 shows the functions of the state in tabular form, distinguishing between the roles of addressing market failure and improving equity on the one hand, and the provision of minimal functions through to activist functions on the other, according to capability.

Countries with a low state capability should concentrate first on basic functions, such as the provision of pure public goods, macroeconomic stability and anti-poverty programmes. Going beyond these basic services are intermediate functions, such as the management of externalities, regulating monopoly, improving information and providing social insurance. Finally, states with a strong capability can take on more active functions, as mentioned above in the case of the Asian tigers, particularly promoting new markets through active industrial and financial policy.

The state also has a duty to reduce bureaucracy and regulation to allow markets to flourish. According to a World Bank (2004) study of laws and regulations in 133 countries, the costs in time, effort and money in setting up businesses in developing countries are colossal compared with developed countries because of bureaucratic delays and institutional inefficiencies. In Indonesia, it takes 168 days to set up a business and 152 days in Brazil, but it takes only 2 days in New Zealand. In some developing countries, the average bureaucratic cost of setting up a business can be four times the average income per head; in developed countries it is as little as 1% of average income per head. The consequences of poor and inappropriate regulations are that business is discouraged; a higher proportion of businesses operates outside the law, so the tax base is lower and corruption is more widespread. It is estimated that excessive regulations, inadequate enforcement of contracts, corruption and crime reduce the sales of firms by at least 25%.

Figure 9.2 Functions of the state

	Addressing market failure			Improving equity
Minimal functions		*Providing pure public goods:* Defence Law and order Property rights Macroeconomic management Public health		*Protecting the poor:* Antipoverty programmes Disaster relief
Intermediate functions	*Addressing externalities:* Basic education Environmental protection	*Regulating monopoly:* Utility regulation Antitrust policy	*Overcoming imperfect information:* Insurance (health, life, pensions) Financial regulation Consumer protection	*Providing social insurance:* Redistributive pensions Family allowances Unemployment insurance
Activist functions		*Coordinating private activity:* Fostering markets Cluster initiatives		*Redistribution:* Asset redistribution

Source: World Bank, 1997.

Failed states, conflict and violence

There are some 40–50 countries in the world, many in Africa, that hardly function at all, politic ally or economically, because their institutions and the rule of law have broken down. These are **failed states**, or what Paul Collier (2007) has coined **fragile states** caught in a conflict trap and prone to violence. Examples in recent years would be countries such as Somalia, Democratic Republic of Congo, Afghanistan, Yemen, Sudan, Zimbabwe, Sierra Leone, Rwanda, Guinea, Chad, Haiti and many others. Within such countries, people are disenfranchised and trapped in poverty at the mercy of vicious networks of criminality, violence and drugs. In these countries, the state has effectively collapsed, the government has lost control and is unable to provide even the most basic services and protection for its people. Moreover, conflict and violence can spread from one failed state to another – witness the contagion of failed states that we see in the Middle East today. Failed states contain approximately 1.5 billion people or 20% of the world's population. They account for 30% of people living on less than $1.90 a day, and poverty rates in these countries are over 20% higher than in other low-income countries

A major cause and characteristic of failed states is civil war, violence and the breakdown of security. The World Bank's *World Development Report 2011* (World Bank, 2011) was subtitled *Conflict, Security and Development*, and Paul Collier, one of the world's experts on failed states, addresses some of these issues in his book, *Wars, Guns and Votes* (2009). Thirty-nine countries have experienced civil wars since the year 2000, and the cost is huge. The World Bank estimates that civil conflict costs the average developing country approximately 30 years of growth of GDP. The total cost of Sri Lanka's civil war between 1983 and 1996 was about $4 billion or twice the size of its GDP in 1996. Civil conflict not only affects GDP directly but also indirectly by reducing investment, raising inflation, and reducing government revenues and expenditures in fields such as education, health and other productive activities. At the same time, infrastructure is destroyed, human capital is lost, and tourism and trade can be badly affected, thus reducing foreign exchange earnings. Gupta et al. (2002) document these effects, taking 20 conflict-affected countries over the period 1985–99. They look at variables three years before conflict started and three years after conflict, and also test the effect of conflict in a wider study of 45 countries (including countries not affected by conflict) using an index of conflict and terrorism compiled by International Country Risk Guide, and a separate index of conflict compiled by the Stockholm International Peace Research Institute. They estimate strong significant adverse impacts on GDP growth, inflation and tax revenues, with the prospect of a substantial peace dividend once the conflict ends and security is restored. Collier (2007) reckons that 'civil wars tend to reduce growth by 2.3 percent per year, so the typical seven-year war leaves a country around 15 percent poorer than it would have been'.

The World Bank (2011) writes: 'the central aspect of conflict and failed states is absence of legitimate institutions that provide citizens with security, justice and jobs'. The lessons of experience that it draws are:

1. To make the reform of security and justice systems a priority.
2. To build inclusive institutions (see Chapter 8).
3. To try to deliver early results.
4. To recognize that the process of state-building can be a long one with interruptions on the way.

But reforms must be made. These would include security, recognizing the connection between the police and justice, supporting bottom-up links between the state and civil society, tackling corruption, creating jobs particularly for young men who often form the core of disaffected groups, and social improvements to give people hope.

Ghani and Lockhart (2008), in their powerful book, *Fixing Failed States*, outline ten key functions that the state should perform if its citizens are to survive and thrive, avoiding conflict:

- To make laws, and to enforce the rule of law, to allow all sections of society to live in harmony.
- The control of violence.
- The appointment of uncorrupt administrators to oversee public bodies.
- The sound management of public finances.
- Investment in human capital.
- The creation of citizenship rights through social policy to ensure equal opportunities for all.
- The provision of infrastructure services.
- The creation and expansion of markets.
- The management of public assets, such as land, water rights and other 'natural' capital.
- Effective public borrowing.

If all these functions are performed well, a virtuous circle of growth and development is possible. If some of the functions are performed badly, a vicious circle can start, ultimately ending in the failure of the state and any prospect of sustained economic and social development. As the World Bank (2011) says: 'low incomes, poverty, unemployment, income shocks, rapid urbanization, and inequality between groups all increase the risks of violence'. Violence is as important a factor as civil conflict in keeping countries poor. The World Bank has set up the Low-Income Countries Under Stress fund to help failed states, while the UK government's intention is to spend one-half of its bilateral aid budget on 20 or more countries, mainly in Africa, where the state has virtually collapsed (see Case example 9.1 on Rwanda).

Development plans

In its *World Development Report 1997*, the World Bank (1997) does not address the role of development planning, but almost all developing countries, whatever their political ideology, publish development plans.[2] A **development plan** is an ideal way for a government to set out its development objectives and demonstrate initiative in tackling the country's development problems. A development plan can serve to stimulate effort throughout the country, and also act as a catalyst for foreign investment and loans from international institutions.

Case example 9.1

Rwanda on the road to recovery

At the end of 1994, almost a million Rwandans were dead and nearly three million were refugees, following years of decline and conflict capped by a cataclysmic genocide. The UK was the first country to provide direct support to Rwanda to help rebuild state institutions, national infrastructure and people's lives. As a result, schools and hospitals have been rebuilt, equal numbers of boys and girls are at school, and an effective tax system provides revenue for a growing national budget. Land ownership – an issue that helped fuel the genocide – is being addressed through practical reforms. Democracy has been boosted by a strengthened electoral system. Rwanda is the first country in the world with a predominantly female parliament. Rwanda has a long way to go but it is rapidly leaving behind the status of 'fragile state'.

Source: Compiled from https://www.gov.uk/government/organisations/department-for-international-development.

As an example, the Tongan 6th Development Plan (1991–95) stated that:

> The ultimate aim of government policy is to induce improvements in the standard of living of Tongans in an equitable manner with a view to protecting natural resources and preserving cultural assets – Government policy will also pursue an equitable distribution of public investment and services between rural and urban areas, and between the capital [city], islands and outer regions.

Four economic and social objectives were set out:

1. To achieve sustainable economic growth conducive to higher per capita income.
2. To achieve a more equitable distribution of income.
3. To generate more employment opportunities.
4. To restore and control external financial imbalances.

Depending on the politics of a country and its available expertise, a development plan will vary in its ambitiousness from a mere statement of aims to detailed calculations (and proposals for action) of the resources needed, and the amount of output that each sector of the economy must generate, in order to achieve a stipulated target rate of growth of output or per capita income. Anything more than a statement of aims inevitably involves some form of model-building, if only to delineate the relationship between sectors of the economy and between the key variables in the growth process.

Four basic types of model are typically used in development planning:

1. **Macro- or aggregate models** of the economy, which may either be of the simple Harrod–Domar type (see Chapter 4) or of a more econometric nature, consisting of a series of equations that represent the basic structural relations in an economy between, say, factor inputs and product outputs, saving and income, imports and expenditure and so on.
2. **Sector models**, which isolate the major sectors of an economy and give the structural relations within each sector, and also specify the interrelationships between sectors, for example between agriculture and industry, between capital and consumer goods industries, and between the government and the rest of the economy.
3. **Interindustry models**, which show the transactions and interrelationships between producing sectors of an economy, normally in the form of an input–output table.
4. Models and techniques for **project appraisal** to decide on the allocation of resources between activities (see this textbook's website, www.palgravehighered.com/Thirlwall-Econ-Of-Dev-10e).

Models such as these serve a twofold purpose. First, they enable planners to reach decisions on how to achieve specified goals. They highlight the strategic choices open to the policy-maker in the knowledge that not all desirable goals are achievable simultaneously. Only with an understanding of the interrelationship between the different parts of the economy, and a knowledge of the parameters of the economic system, is it possible for meaningful and consistent policy decisions to be reached. Without detailed information on which to base planning (or what has been called 'planning without facts'), the case for decentralized decision-making becomes overwhelming.

Second, models of the type described above can perform an equally valuable function of enabling the future to be projected with a greater degree of certainty than would otherwise be possible, thereby providing some knowledge of what resources are likely to be available in relation to requirements within a stipulated planning period. Various types of model may be classified, therefore, according to whether they are required for policy or decision purposes or for projection

and forecasting. The necessary constituents of a plan containing both types of model are a statement of economic goals, a specification of policy instruments, an estimation of structural relationships, historical data, the recognition of exogenous variables, and, last but not least, a set of national accounts for national income and expenditure, foreign trade and even manpower to ensure consistency between demand and the supply of resources available.

The allocation of resources: the broad policy choices

Given the scarcity of resources in developing countries in relation to development needs, one of the central issues in development economics is the allocation of resources among competing ends. For most developing countries, the two major constraints on the growth of output are the ability to invest and the ability to import, and most theories of resource allocation and most public investment criteria reflect this fact. A common starting point in the consideration of resource allocation is how to maximize the level or growth of output with the domestic resources available, and how to minimize the use of foreign exchange.

Apart from the decision of how much to invest, three broad types of allocation decision may be distinguished:

1. Which sectors to invest in.
2. Which projects should receive priority, given the factor endowments of a country and its development goals.
3. Which combination of factors of production should be used to produce a given vector of goods and services, which will determine the technology of production.

While these decisions may look independent, in fact they are not. In practice, interdependence between decisions on output and decisions on technology is inevitable. Deciding which goods to produce will, to a certain extent, dictate factor proportions if technical coefficients are relatively fixed, and decisions about technology will influence the types of goods and services that are produced, insofar as factor proportions cannot be varied. Some goods and services are obviously more labour-intensive than others. The choice of technology will, in turn, be particularly influenced by factor endowments and the price of factors of production, and by the relative valuation given to present versus future consumption and welfare.

Because of the interdependence between the choice of goods and the choice of technology, a country that decides to use relatively labour-intensive techniques within the framework of goods chosen may nonetheless have a greater capital intensity than another country using relatively capital-intensive techniques with a different mix of goods. When discussing resource allocation and the choice of techniques, a distinction needs to be made between investment criteria that relate to the pattern of output on the one hand, and the choice of technology to produce the given vector of outputs on the other.

Investment decisions of the micro-type outlined above will also be influenced to a certain degree by the nature of the development strategy intended – that is, by broader policy issues, such as whether emphasis is to be given to agriculture or industry, whether resources are to be used to build up complementary activities, or whether imbalances are to be deliberately created in order to induce investment and influence decision-making, and whether emphasis is to be on static short-term efficiency in the allocation of resources or on laying the foundations for faster growth in the future. And, in an open economy, the potential clash between efficiency and growth also requires a consideration of the implications of adherence to different versions of the

comparative cost doctrine. In short, the question of resource allocation between projects cannot be divorced from consideration of the wider policy issues of industry versus agriculture, balanced versus unbalanced growth, foreign trade strategy and so on. And influencing all these decisions will be the underlying objectives of the development strategy: whether the aim is to maximize *current welfare* or to maximize consumption at *some future point in time*.

The choice of development strategy itself will be subject to political, social and economic constraints. A particular strategy, for example, may conflict with the desired income distribution or other social objectives. Other strategies may involve political repercussions inimical to development. One factor that cannot be ignored is the regional distribution of political power. Spatial considerations of this sort add a further dimension to the allocation problem. The pursuit of balanced growth or massive investment in social overhead capital may imply a large public sector in the economy, which may not be politically possible. Certain development plans may antagonize foreign investors or multilateral aid-giving agencies, such that if the plans are carried out, foreign capital or 'agency' capital dries up. Bearing in mind these constraints, let us first consider some of the broader aspects of development strategy and briefly discuss development goals, before examining a number of specific investment criteria that have been recommended for determining the allocation of resources and the pattern of output.

Industry versus agriculture

The issue of the choice between industry and agriculture, and where the emphasis should lie, can be discussed very quickly because, as we saw in Chapter 5, the two sectors are very much complementary to each other. In practice, the fortunes of agriculture and industry are closely interwoven, in that the expansion of industry depends to a large extent on improvements in agricultural productivity, and improvements in agricultural productivity depend on adequate supplies of industrial 'inputs', including the provision of consumer goods acting as incentives to peasant farmers to increase the agricultural surplus. It is worth mentioning, however, that the emphasis on *balance* between industry and agriculture is of fairly recent origin. On the one hand, it represents a shift of emphasis away from the 'modern' view of an all-out drive for industrialization by developing countries, and on the other hand, it represents a reaction against the traditional doctrine of comparative cost advantage, which, when applied to many developing countries, may lead to the production of primary commodities and a pattern of trade that puts these countries at a relative development disadvantage (see Chapter 15).

The comparative cost doctrine

Whether the static comparative cost doctrine should be adhered to is itself a question of development strategy, which is closely bound up with the goals of developing countries (that is, what they are trying to maximize), and with the controversy over whether trade should be looked at more from the point of view of the balance of payments than from that of the allocation of real resources. Assuming the full employment of resources, and that the price of a commodity reflects its opportunity cost (admittedly bold assumptions in any country), adherence to the comparative cost doctrine will produce the optimum pattern of production and trade for a country (see Chapter 15). Efficiency will be maximized when no commodity is produced that could be imported at a lower cost, measured by the resources that would have to be sacrificed to produce it at home.

In a free trade world, this would rule out the production of a wide range of industrial commodities in developing countries.

If the objective is faster economic *growth*, however, as opposed to static efficiency, the theory of growth suggests investment criteria that are quite different from those derived from the theory of comparative advantage. If growth depends on increases in investment, for example, it may not be wise to channel resources into activities that are too labour-intensive, where the income generated is all consumed and none is saved, or where there is no scope for increasing returns. Similarly, if growth is constrained by the balance of payments, it may be equally unwise to develop activities that produce goods with a low price and income elasticity of demand in world markets, such as primary commodities. A low price elasticity of demand can cause fluctuations in export earnings with shifts in supply, and cause the terms of trade to move adversely. A low income elasticity of demand will mean that, for any given growth of world income, countries producing these commodities will be put at a permanent balance of payments disadvantage compared with other countries producing goods with a higher income elasticity of demand (see Chapters 15 and 16).

The question ultimately boils down to one of the relative valuation of present versus future output and consumption (or welfare) – between consumption today and consumption tomorrow. Efficiency in resource allocation will maximize present output and consumption from a given amount of resources, but may impair growth and future consumption. Focusing on growth may lower present welfare but provide greater output and welfare in the future.

Present versus future consumption

The choice between present and future consumption is the same as the choice between consumption and investment in the present. How much investment should be undertaken in the present depends on the time interval over which society wants to maximize consumption and what value it places on consumption in the future compared with consumption in the present – that is, on the rate at which it discounts future consumption gains. Time affects both the accumulation of consumption gains and the effect that discounting has. Investment should take place so as to maximize consumption over the planning period. The investment ratio that maximizes consumption will vary according to the planning period, with and without discounting.

Let us illustrate this with a numerical example. Consider three different investment ratios – 0%, 10% and 50% of national income – and three different planning periods – three years, six years and ten years. Further assume that the capital–output ratio is 2, and that, for simplicity, there is no depreciation and no discounting. Let the initial capital stock equal 200, producing 100 units of output. The time paths of output, consumption, investment and the capital stock for the three different investment strategies and three different planning horizons can now be shown, as in Table 9.2. Over the three-year planning period, the first policy of no investment maximizes consumption. Over the six-year planning period, the second policy of a 10% investment ratio maximizes consumption, and over the ten-year planning period, the third policy of a 50% investment ratio maximizes consumption.

The calculations in Table 9.2, and the conclusions drawn from them about the time period over which consumption will be maximized, will be affected by discounting and the discount rate chosen, because the present value of future consumption gains becomes less and less the further into the future they accrue, and their value is also lower the higher the discount rate chosen. What we illustrate, then, is that the answer to the question of how much to invest depends crucially on the *planning horizon* taken and the *discount rate* chosen. The longer the planning horizon and the

Table 9.2 Consumption benefits with different investment ratios over different planning horizons

Time	Policy 1, no investment				Policy 2, 10% investment				Policy 3, 50% investment			
	K	Y	I	C	K	Y	I	C	K	Y	I	C
1	200	100	0	00	200.00	100.00	10.00	90.00	200.00	100.00	50.00	50.00
2	200	100	0	100	210.00	105.00	10.50	94.50	250.00	125.00	62.50	62.50
3	200	100	0	100	220.50	110.25	11.03	99.22	312.50	156.25	78.12	78.12
4	200	100	0	100	231.53	115.76	11.57	104.19	390.62	195.31	97.65	97.65
5	200	100	0	100	243.10	121.55	12.15	109.40	488.27	244.13	122.07	122.07
6	200	100	0	100	255.25	127.62	12.76	114.86	610.34	305.17	152.58	152.58
7	200	100	0	100	268.01	134.00	13.40	120.60	762.92	381.46	190.73	190.73
8	200	100	0	100	281.41	140.70	14.07	126.61	953.65	476.82	238.41	238.41
9	200	100	0	100	295.48	147.74	14.77	132.97	1192.06	596.03	298.01	298.01
10	200	100	0	100	310.25	155.12	15.51	139.61	1490.07	745.03	372.51	372.51

Key: K = capital stock; Y = output; I = the level of investment; C = consumption.

less the stream of future consumption benefits is discounted, the more investment there should be in the present. The shorter the planning horizon and the higher the discount rate, the less investment there will be.

We also illustrate that countries with low initial stocks of capital and low levels of consumption must invest heavily if high future living standards are to be attained. But to invest heavily, countries must take long planning horizons. One of the arguments for planning is, in fact, to lengthen the planning horizon beyond that chosen by individuals maximizing privately. Any finite planning horizon, however, only takes care of the people living within the planning period. To take account of generations living beyond the horizon, certain constraints must be built into the investment model such that, for example, the level of consumption at the end of the period should not be above a specified level, otherwise maximization of consumption within the horizon would mean consuming all income at the end of the horizon, leaving no saving for future investment and consumption.

Choice of techniques

In a planning framework, the valuation of present versus future welfare is also the central issue regarding the choice of technology – whether techniques should be capital- or labour-intensive. At first sight, it would seem sensible, in a labour-abundant economy, to use labour-intensive techniques of production, and to encourage activities that use factors of production that are in abundance. Doing so, however, may lead to a conflict between efficiency and growth; a clash between the maximization of present consumption and the level of consumption in the future. The problem is that if the wage rate is given, and invariant with respect to the technique of production, the more labour-intensive the technique, the less saving that is likely to be generated for future reinvestment. Specifically, if workers' propensity to consume is higher than that of the owners of capital, the total surplus, and the surplus per unit of capital invested, left for reinvestment, will be smaller than if the technology were more capital-intensive. On the other hand, the more capital-intensive the

technology, the lower the level of consumption and employment in the present.[3] In general, we reach the conclusion that the higher the valuation placed on raising the present level of employment and consumption as compared with future output, the more that labour-intensive techniques should be favoured. At the same time, the greater the valuation placed on future output in relation to present welfare, the more that capital-intensive methods of production should be favoured.

There is not only a potential conflict between employment and saving in the choice of techniques, but also a conflict between employment and output. The conflict arises not in the utilization of existing equipment but in the choice of *new* techniques. Labour-intensive techniques of production may have higher capital–output ratios than more capital-intensive techniques. A simple example will illustrate the point. Assume a fixed amount of capital to be invested of £1,000. One technique of production could employ 100 units of labour with £1,000 of capital, but the capital–output ratio is 5. This would give a flow of output of 200 with the employment of 100 persons. A second technique of production employs 50 units of labour but has a capital–output ratio of 4. This would give a flow of output of 250 with the employment of 50 persons. Thus, maximizing both the current level of employment and output are consistent only if the more labour-intensive techniques also have the lowest capital–output ratios. These issues are discussed fully in Chapter 6.

Balanced versus unbalanced growth

Another broad choice of development strategy is between so-called 'balanced and unbalanced growth'. The term 'balanced growth' is used in many different senses, but the original exponents of the balanced growth doctrine had in mind the scale of investment necessary to overcome indivisibilities on both the supply and demand side of the development process (see, e.g., Rosenstein-Rodan, 1943; Nurkse, 1953). Indivisibilities on the supply side refer to the 'lumpiness' of capital (especially social overhead capital), and the fact that only investment in a large number of activities simultaneously can take advantage of various external economies of scale. Indivisibilities on the demand side refer to the limitations imposed by the size of the market on the profitability, and hence feasibility, of economic activities. This was the original interpretation of the doctrine of balanced growth: that the large-scale expansion of activities or **big push** was necessary to overcome divergences between the private and social returns to investment. The doctrine was later extended, however, to refer to the *path* of economic development and the *pattern* of investment necessary to keep the different sectors of the economy in balance, so that lack of development in one sector does not impede development in others; for example, the necessity to strike a balance between sectors such as agriculture and industry, between the capital goods and consumer goods industries, and between social capital and directly productive activities (see also Lewis, 1955).

On the demand side, the argument is akin to Adam Smith's famous dictum that specialization, or the division of labour, is limited by the extent of the market, and that if the market is limited, certain activities may not be economically viable (see Chapter 4). If, however, several activities are established simultaneously, each could provide a market for the other's products, so that activities that are not profitable when considered in isolation would become profitable when considered in the context of a large-scale development programme.

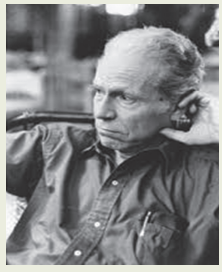
On the supply side, the argument for a 'big push' is related to the existence of **external economies of scale**, whereby the production function of one activity may be favourably altered by the existence of other activities (e.g. those in close proximity), so that the social return of an activity will exceed the private return. The way to eliminate this divergence is to make each activity part of an overall programme of investment expansion. Enterprises that are not, or do not appear to be,

profitable in isolation become profitable when considered as part of an overall plan for industrial expansion embracing several activities.

A major criticism of the balanced growth doctrine, however, is that it fails to come to grips with one of the fundamental obstacles to development in developing countries, namely a shortage of resources of all kinds. Critics of balanced growth do not deny the importance of a large-scale investment programme and the expansion of complementary activities. Their argument is that in the absence of sufficient resources, especially capital, entrepreneurs and decision-makers, the striving for balanced growth may not provide sufficient stimulus to the spontaneous mobilization of resources or the inducement to invest, and will certainly not economize on decision-taking if planning is required.

One of the most provocative books ever written on development strategy is that by Hirschman (1958), whose argument is along the above lines. Hirschman was then the foremost exponent of the doctrine of **unbalanced growth**, and we must briefly consider his views as these are still relevant today. The question he attempts to answer is this: Given a limited amount of investment resources and a series of proposed investment projects whose total cost exceeds the available resources, how do we pick out the projects that will make the greatest contribution to development relative to their cost? And how should 'contribution' be measured?

Albert Hirschman



Born 1915, Berlin, Germany. Died 2012. Appointed Professor of Social Science, Institute for Advanced Study, Princeton, in 1974. Best known for his book *Strategy of Economic Development* (1958), which challenges the conventional view that developing countries should strive for balanced growth. Imbalances create incentives and economize on the decision-making process. Governments should deliberately target activities with high backward and forward linkages. Also an expert on Latin American economies and economic history, with such books as *Journeys Towards Progress: Studies of Economic Policy-Making in Latin America* (1963) and *A Basis for Hope: Essays on Development and Latin America* (1971).

Hirschman (1958) distinguishes two types of investment choices – *substitution choices* and *postponement choices*. Substitution choices are those that involve a decision as to whether project *A* or *B* should be undertaken. Postponement choices are those that involve a decision as to the *sequence* of projects *A* and *B* – that is, which should precede the other. Hirschman is mainly concerned with postponement choices and how they are made. His fundamental thesis is that the question of priority must be resolved on the basis of a comparative appraisal of the strength with which progress in one area will induce progress in another. The efficient sequence of projects will necessarily vary from region to region and from country to country, depending on the nature of the obstacles to development, but the basic case for the approach remains the same – that is, to economize on decision-making. In Hirschman's view, the real scarcity in developing countries is not the resources themselves but the means and ability to bring them into play. Preference should be given to that sequence of projects that maximizes **induced decision-making**.

Hirschman (1958) illustrates his argument by considering the relation between social capital (SC) and directly productive activities (DPA). The case in which SC precedes DPA he calls 'development via excess capacity', and the case in which DPA precedes SC he labels 'development via shortages'.

Both sequences create inducements and pressures conducive to development; the question is: Which sequence should be adopted (if it is not possible to pursue a 'balanced' growth path) to produce DPA output at minimum cost in terms of inputs into both DPA and SC? The question can be made clearer with the aid of a diagram (see Figure 9.3).

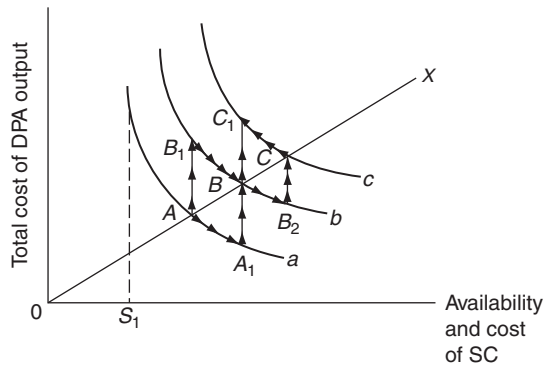
If the total cost of DPA output is measured on the vertical axis, and the availability and cost of SC is measured on the horizontal axis, curves can be drawn (*a*, *b*, *c*) showing the cost of producing a given full capacity output of DPA from a given amount of investment in DPA, as a function of the availability of SC. The successive curves, *a*, *b*, *c*, represent different levels of DPA output from successively higher investment in DPA. The curves are negatively sloped and convex to the origin because DPA costs will decrease the greater the availability of social capital, but there is a minimum amount of SC necessary for any level of DPA output (for example, OS_1, corresponding to curve *a*), and as SC increases, its impact on the cost of DPA output becomes less and less.

Now assume that the objective of the economy is to obtain increasing outputs of DPA with the minimum use of resources devoted to both DPA and SC. On each curve, *a*, *b*, *c*, the point where the sum of the coordinates is smallest will represent the most desirable combination of DPA and SC on this criterion. The line 0*X* connects the optimal points on the different curves and this represents the most 'efficient' expansion path, or 'balanced' growth path, between SC and DPA.

But suppose that 'optimal' amounts of SC and DPA cannot be expanded simultaneously to keep in balance with one another. On what criteria is that postponement choice made? One possibility is the sequence AA_1BB_2C, where the initial expansionary step is always taken by social capital. This sequence is called 'development via excess capacity'. The other (opposite) possibility is the sequence AB_1BC_1C, where the initial expansionary step is taken by DPA. This sequence is called 'development via shortages'. According to Hirschman, the preference should go to the sequence of expansion that maximizes 'induced decision-making'. It is difficult to tell *a priori* which sequence this is likely to be. If SC is expanded, existing DPA becomes less costly, encouraging further DPA. If DPA is expanded first, costs will rise but pressures will arise for SC facilities to be provided. Both sequences set up incentives and pressures and, ultimately, in Hirschman's view, the sequence chosen must depend on the relative strength of entrepreneurial motivations on the one hand, and on the response to public pressure of the authorities responsible for social capital on the other.

Hirschman applies the same criterion of 'induced decision-making' to the choice and sequence of projects *within* the directly productive sector. Here, inducements stem from interdependencies between activities, or what Hirschman (1958) calls **backward and forward linkage effects**. Backward linkages measure the proportion of an activity's output that represents purchases from

Figure 9.3 Induced decision-making



other domestic activities. Forward linkages measure the proportion of an activity's output that does not go to meet final demand but is used as an input into other activities. With knowledge of interindustry flows in an economy, with the help of an **input–output table**, it is possible to rank activities according to the magnitude of their combined linkage effects. Hirschman is suggesting that, within the directly productive sector, a useful development strategy would be to encourage those activities with the potentially highest combined linkages, because this will provide the greatest inducement and incentive to other activities to develop.

Unfortunately, one of the typical characteristics of developing countries is a lack of interdependence between activities. Primary product production has only limited backward linkages with other activities, while forward linkages, although potentially greater, also tend to be limited in practice. Agriculture's demands on other sectors are minimal, and only a comparatively small fraction of total agricultural output in developing countries is processed domestically – most is exported. The fact that manufacturing activities possess greater backward and forward linkages, strengthening the cumulative nature of development, is another powerful argument for industrialization. Hirschman advocates the expansion of industry through the transformation of semi-manufactures into goods required for final demand, or what he calls 'enclave import' industries.

In general, Hirschman (1958) lays great stress on the role of imports in the development process, seeing imports as part of the inducement mechanism. For not only can semi-manufactured imports be processed into goods for final demand, but final demand imports themselves can then be readily produced at home once the market has attained a certain size (or production threshold). If one of the major obstacles to development is a shortage of decision-makers, coupled with uncertainty and a limited market, the existence of imports provides conclusive proof that the market is there. As imports increase, so too do the chances that domestic production will one day be profitable. Hirschman criticizes developing countries for restricting imports prematurely, and argues that infant industry protection should only be given after imports have reached such a level as to guarantee domestic producers a market for their goods.

Investment criteria

Traditional micro-theory teaches that under perfect competition, resources will be optimally allocated when each factor of production is employed up to the point where its marginal product is equal to its price, and that society's output (welfare) will be maximized when the marginal products of factors are equated in all their uses. This is the so-called 'marginal rule' for resource allocation and implies 'efficiency', in the sense that a society's total output of goods and services could not be increased by any redistribution of resources between activities because each factor of production is equally productive in existing activities. In static analysis, therefore, 'efficiency' in resource allocation implies maximizing the national product, which is achieved when the marginal products of factors are equated in their different uses.

If the application of the marginal rule leads to an efficient allocation of resources, what is the allocation 'problem' in developing countries? Why seek other criteria to decide on the allocation of resources? One good reason is that the assumptions of traditional micro-theory do not accord with the realities or aspirations of developing countries. Two major drawbacks of the application of the marginal rule may be cited. One is that the marginal rule is a static criterion, and as we have said before, it is by no means certain that the aim of developing countries is, or ought to be, the maximization of the *present* level of output, consumption or welfare. Second, traditional static theory ignores many factors that may have a bearing on the *social* optimum allocation of resources. In

countries characterized by fundamental structural disequilibria and extreme imperfections in the market, it cannot be assumed that the market prices of goods and factors of production reflect the social costs and benefits of production. The application of the marginal rule will only lead to a *socially* optimal allocation of resources in the absence of divergences between market prices and social costs and benefits, or if market prices are corrected to reflect social values.

Several factors can lead to divergences between market prices and the social valuation of goods and factors of production. First, if external economies and increasing returns are attached to some projects, their social value will exceed their private value, and the application of the marginal rule must make allowances for this, if output is to be maximized from a given endowment of factors.

Second, if perfect competition does not prevail in the product market, product prices will not reflect society's valuation of those products, and market prices must somehow be adjusted to achieve a social optimum. Similarly, if perfect competition does not prevail in the factor market, the price of factors will not reflect their opportunity cost to society, so that employing factors up to the point where their marginal product equals their price will not produce a social optimum. Underemployed resources such as labour will be overvalued, and scarce resources such as capital and foreign exchange will be undervalued, and market prices must therefore be corrected to reflect the value of these resources to society.

Third, static analysis ignores the future structure of product and factor prices arising from the choice of projects in the present. An optimum resource allocation in the present may not produce an optimal allocation of resources in the future. The only way of coping with this difficulty is through what is called the **programming approach to resource allocation**, by which the repercussions of one activity on others are explicitly considered and due allowance is made for time.

Finally, the application of the marginal rule can only lead to optimal resource allocation if income distribution is 'optimal' and remains unaffected by whatever programme is decided on. If a new pattern of resource allocation alters income distribution, output may be maximized but welfare diminished because of 'undesirable' changes in the distribution of income gains. To say anything concrete on this score requires an explicit statement of societal objectives, or a **social welfare function**, if interpersonal comparisons of utility are to be avoided. Presumably, there might be a fair degree of consensus that an income distribution that leaves half the population unemployed and starving is 'inferior' to one that does not. Only the conditions for Pareto optimality would deny it (a situation is said to be Pareto optimal only if a change that benefits some does not harm others).

For all the above reasons, there has been a prolonged debate for many years over the most appropriate criterion for resource allocation in the light of the development obstacles of developing countries and their aspirations. The different criteria that have been suggested reflect, by and large, differences of opinion as to what developing countries ought to attempt to maximize, the broad choice being between present and future levels of output and consumption. Most of the criteria discussed by early writers in this field refer to the allocation of capital, reflecting the view of domestic saving as the primary scarce resource. Increasingly, however, attention has been paid to the effects of resource allocation decisions on the balance of payments, in recognition of foreign exchange as an equally scarce resource.

Summary

- In free-market economies, the market mechanism allocates resources among competing ends, but markets in developing countries have many imperfections that need correcting for a social optimum allocation of resources.

- Prices of goods and factors of production may not reflect their social benefit and social cost, respectively, because of positive and negative externalities. Markets may be incomplete or missing entirely. This provides a role for the state.
- The state has four key functions: to correct market imperfections; to provide public goods (such as health and education); to protect the vulnerable; and to provide an institutional environment in which markets can flourish.
- The state may also fail through corruption and rent-seeking behaviour. There are many 'failed states' in the world in which institutions and the rule of law have broken down.
- Many developing countries practise development planning, with various degrees of success.
- The central question facing all developing countries is how to allocate resources to maximize the level or growth of per capita output with the domestic resources available, and how to minimize the use of foreign exchange (which is a scarce resource).
- Apart from the decision of how much to invest, there are three broad types of allocation decisions: which sectors to invest in, which projects should receive priority, and which combination of factors of production should be used, which will determine the technology of production.
- In addition, countries need to decide on the balance between agriculture and industry, the extent to which static comparative advantage is allowed to dictate production, the balance between present and future consumption, and whether growth should be 'balanced' (between sectors) or deliberately unbalanced.

Chapter 9 Discussion questions

1. What is the role of markets in the development process?
2. Distinguish the different types of market failure, and the role that governments can play in rectifying market failures.
3. According to the World Bank (1997), what are the key roles of the state in developing countries, and how can the role of the state be made more effective?
4. What causes corruption, and how can it be reduced?
5. What are the major causes of divergences between the market prices of goods and the value of those goods to society?
6. What are the characteristics of failed states?
7. What are the major causes of divergences between the market prices of factors of production and their cost to society?
8. Why do developing countries construct development plans?
9. Why is there a potential clash between present and future consumption, and how can it be reconciled?
10. What do you understand by the concept of 'balanced growth'?
11. What is Hirschman's major criticism of the doctrine of balanced growth?

Notes

1. In many developed countries, the state is even more pervasive in terms of expenditure, although a much higher proportion represents social security transfer payments, not expenditure on real resources.
2. Students should familiarize themselves with a plan for a country of their choosing.
3. This conclusion depends on, among other things, the wage rate being invariant with respect to the technique of production. If the wage is higher the more capital-intensive the technique, this conclusion would have to be modified. For a discussion of this point, and other considerations that may lessen the conflict between employment and saving in the choice of techniques, see Chapter 6.

Websites on government and corruption

Role of the state

World Bank www.worldbank.org/en/topic/governance
International Development Department (University of Birmingham) www.birmingham.ac.uk/schools/government-society/departments/international-development/index.aspx

Corruption

Transparency International www.transparency.org
Internet Center for Corruption Research www.icgg.org

III

THE PERPETUATION OF UNDERDEVELOPMENT