

International Trade and Development

27.1 THE PURE THEORY OF TRADE

General equilibrium and geometry

During the previous period international trade had increasingly been viewed in terms of general equilibrium theory, a tendency which became even more complete with Samuelson's work, dating from the late 1930s. This was achieved to a great extent through confining attention to simple cases in which definite results could be obtained. Following the lead of Haberler, Lerner and Leontief, diagrammatic analysis of the 2×2 (two country, two commodity) case became common, enormous emphasis being placed on geometric analysis.¹ The classic work here was Meade's *Geometry of International Trade* (1952), which consolidated earlier contributions using its "trade indifference curve",² a device which enabled Meade to represent in a single diagram a free trade equilibrium involving two countries, each with its own production possibility frontier and consumption-indifference curves.³

The derivation of Meade's trade-indifference curves is shown in Figure 27.1a. There are two commodities, X and Y, and two countries, *a* and *b*. Country *a*'s consumption is shown in quadrant II, its preferences being described by a set of consumption-indifference curves, of which two, I'_{ca} and I''_{ca} are shown. Country *a* has the production-possibility curve PP', and in the absence of trade would be in equilibrium at A.

Corresponding to each consumption-indifference curve it is possible to derive a trade-indifference curve. For example, to derive the trade-indifference curve corresponding to consumption-indifference curve I'_{ca} , we slide the quadrilateral OPAP' round I'_{ca} . The trade-indifference curve corresponding to I'_{ca} , I'_{ta} is the path traced out by the origin of the production possibility diagram as it slides round I'_{ca} . It is an indifference curve, for country *a*, relating quantities of exports and imports. For example, if country *a* were to import OC units of Y and export CD units of X, it could consume at point B (in Figure 27.1a) and be exactly as well off as if there were no trade and it was consuming at point A.

If we derive a whole set of trade-indifference curves, one for each consumption-indifference curve, we can use them to derive an offer curve for country *a*. The process can then be repeated for a second country, *b*, country *b*'s consumption being measured in quadrant IV. Putting the two

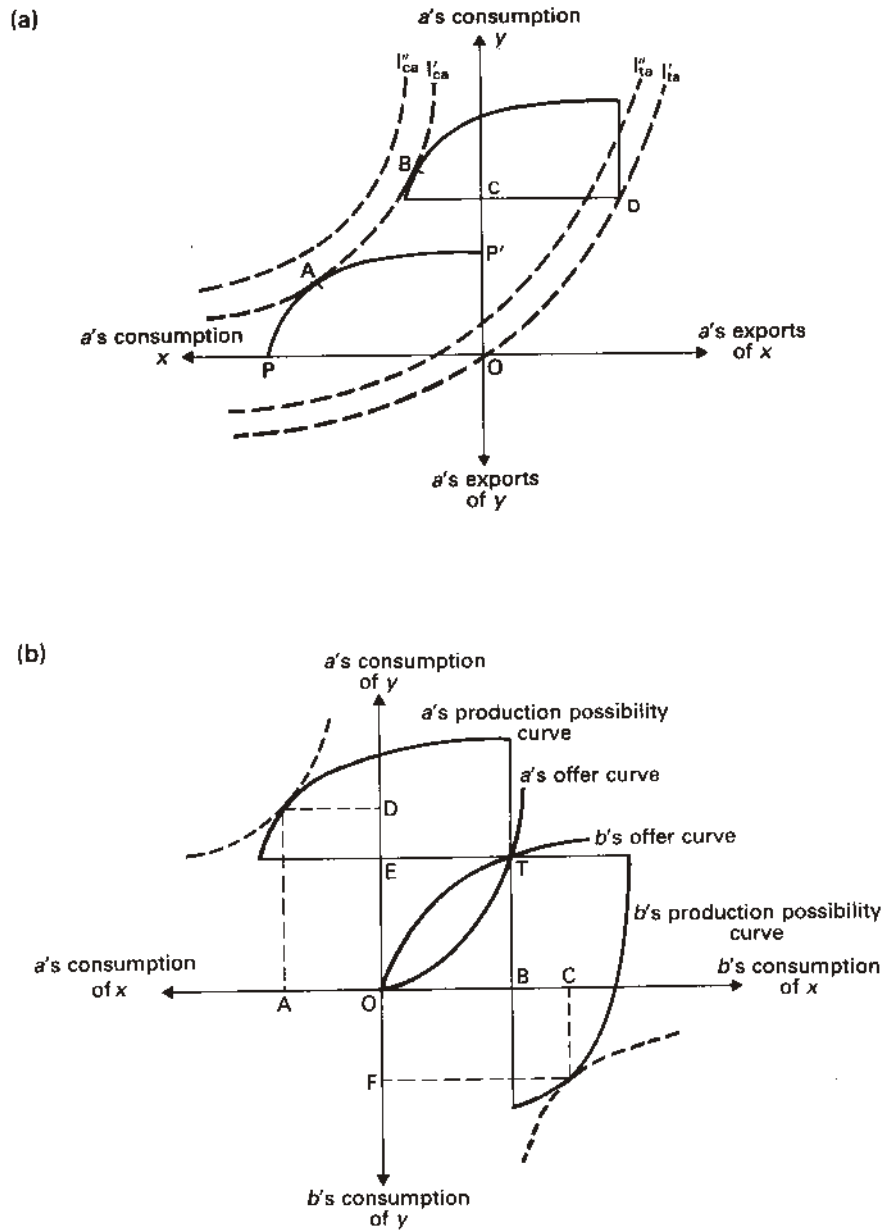


FIGURE 27.1 Meade's International Trade Geometry

offer curves together we can find the equilibrium level of trade. If we draw not only the two offer curves, but also the two countries' production possibility curves and consumption-indifference curves, we can work out how much of each commodity each country is producing and consuming. This is done in Figure 27.1b, where the quantities produced, consumed and traded are as follows:

	Country <i>a</i>				Country <i>b</i>			
	Imp	Exp	Cons	Prod	Imp	Exp	Cons	Prod
X	–	OB	OA	AB	OB	–	OC	BC
Y	OE	–	OD	ED	–	OE	OF	EF

It is easy to check that worldwide consumption of each good equals production, and that for each country production of each good equals consumption plus exports minus imports. Mcade was thus able to show the link between internal production conditions (represented by a production possibility curve) and a country's offer curve, a link which Graham had, in the 1920s, argued was missing. Throughout the 1950s and 1960s geometry dominated trade theory to an extent not equalled in other branches of economics.⁴

A good example of a problem transformed by being considered in the context of a simple formal model is the transfer problem, and the effects of a transfer on the terms of trade. Due in part to Keynesian economics,⁵ and in part to the Hicks–Allen analysis of income effects, the income mechanism was now understood, sweeping away the most controversial aspect of earlier discussions.⁶ It could be shown that in the 2×2 case the change in the terms of trade would depend on the marginal propensities to spend on the two goods.⁷ The change in the terms of trade was an empirical issue. Though there was still dispute as to whether any presumption could be established as to how the terms of trade would in practice move,⁸ the nature of the discussion was very different. Whether a general equilibrium model or a simpler Keynesian model was used, discussion could take place within an explicit, widely accepted and understood framework. This made it possible to relate areas of disagreement much more clearly to particular properties of the model (utility functions, propensities to consume, assumptions about transport costs, the existence of non-traded goods, and so on).⁹

The Heckscher–Ohlin–Samuelson model

The dominant approach to the pure theory of trade, certainly from the late 1940s, was that of Heckscher and Ohlin, in which trade flows were explained in terms of differences in factor endowments across countries possessing identical production functions. This approach was embodied in a specific, simple model by Samuelson in a series of papers, discussed below, dating from the 1940s. Fundamental to this approach is the result that a country will export those commodities which use its abundant factor most intensively, and import those which use its scarce factors more intensively.

Discussion of this proposition in the 1950s and 1960s was dominated by Leontief's (1953) finding, obtained using his input-output model, that the US imported relatively capital-intensive goods, exporting relatively labour-intensive ones. As the US was, and is, by any standards a capital-rich country, this appeared to contradict the Heckscher-Ohlin theory.

Several responses to this result of Leontief's can be distinguished.¹⁰ (1) One response¹¹ was to argue that there was no reason to accept Leontief's conclusions, because there was no reason to assume that the conditions needed for the Heckscher-Ohlin results to hold would be satisfied in the real world. Ambiguities in the concept of factor abundance and differences in demand conditions in different countries, for example, would be enough to upset the Heckscher-Ohlin conclusions. Of particular note here is Minhas's (1962) attempt to apply constant elasticity of substitution production functions to the problem, showing the possibility of a situation where a commodity was relatively capital-intensive at one set of factor prices, but relatively labour-intensive at other prices. Such factor intensity reversals, as they are called, are inconsistent with the Heckscher-Ohlin theory. (2) Leontief's results could be investigated more closely, for example by expanding the number of factors to include natural resources and human skills.¹² (3) Finally there is the possibility of ignoring Leontief's results as a puzzle, not properly understood, but not affecting the validity of the theory. Research could continue into working out the implications of the Heckscher-Ohlin approach for various problems.

One of the main problems to be investigated was that of factor price equalization. Where Ohlin had argued that trade would result in a partial equalization of factor prices Samuelson (1948b, 1949) and Lerner (1952)¹³ showed that under certain conditions, in particular the absence of transport costs, *complete* equalization of factor prices would occur,¹⁴ the same result as would occur if factors were perfectly mobile. In other words, trade in commodities is a substitute for the movement of factors.¹⁵ Though originally derived for a model with two countries, two goods and two factors, the result proved capable of generalization. Samuelson (1953) extended it to the case of many commodities and many factors, subsequent research during the 1950s filling in many of the gaps.¹⁶

The same framework also proved capable of being used to investigate the effects of trade on the distribution of income, the essential contribution here being Stolper and Samuelson (1941). Their conclusion was that trade would lower the price of the "scarce" factor of production, or in other words that protection would raise the real wage of the scarce factor. The argument is that protection raises the relative price of the importable good, increasing the real wage of the factor that this uses more intensively; as a country imports goods which are intensive in their use of its scarce factor this means that the real wage of the scarce factor will be raised by protection.¹⁷ As with factor price equalization the Stolper-Samuelson theorem stimulated research into the exact assumptions needed for it to be valid. It turned out that the result depended on special properties of the 2×2 model that Samuelson and Lerner used. In particular, problems arise when there are more than two factors.¹⁸

Alternatives to the Heckscher–Ohlin–Samuelson model

In contrast to the extensive and well-integrated research undertaken into the Heckscher–Ohlin–Samuelson model, research into alternative explanations of trade has been more sporadic. One was that of Kravis (1956), who argued that trade was determined by the availability of goods: goods will be imported only if they are unavailable at home, either in the sense that they simply cannot be produced (perhaps due to the absence of a crucial raw material), or in the sense that they can be produced domestically only at a much greater cost than the cost at which they can be imported. Tariffs, transport costs and cartelization mean that small differences in costs do not provide a sufficient reason for trade.

A more comprehensively worked out alternative to the Heckscher–Ohlin–Samuelson theory was provided by Linder (1961) who, whilst he accepted that relative resource endowments could explain trade in primary products, denied that it could explain trade in manufactured products. For manufactured goods, however, Linder failed to provide a precise explanation of the *composition* of trade, providing instead an explanation of the *volume* of trade. His argument is that trade will be greatest between countries with similar demand patterns, and hence between countries with similar levels of income per capita. Central to the argument is increasing returns to scale, for an industry has to become sufficiently large before it can become competitive in world markets, something for which it requires a substantial home market. The strongest foreign market will be found in countries with a similar composition of demand.

Although Linder stressed increasing returns to scale, it was not until much later (Krugman, 1979) that a more formal treatment of trade under increasing returns to scale was provided. One of the problems with incorporating increasing returns to scale into a theory of trade is the need to deal with imperfect competition, a necessary implication of an equilibrium with increasing returns to scale. Krugman uses a model of monopolistic competition to show that trade can be viewed as a means of exploiting economies of scale in the presence of a less than completely elastic home market.²⁰

A different approach is to concentrate on the dynamic aspects of technology, seeing exports as the result of successful innovation. A successful innovation will increase the world's demand for a country's products, the effects of this lasting until the new product is imitated abroad, at which stage demand will decline. This approach underlies the product life cycle theory put forward by Vernon (1966),²¹ who explained the persistence of international differences in costs in terms of the changes in production techniques and costs which take place as a product is developed. Though a more dynamic theory, this explanation of trade has much in common with increasing returns to scale.

Trade and welfare

Due to the longstanding concern of economists with the gains from trade, and with the benefits or losses arising from interference with trade,

developments in trade theory have always been closely linked with developments in welfare economics. Two strands of thought can be distinguished: the utilitarian and the non-utilitarian. In the modern period the main exponent of the non-utilitarian approach has been Samuelson, whose two papers (1938b and 1939a) contained the main results obtained. Samuelson's criterion for a welfare improvement is that the new situation be superior to the old one at all distributions of income: that the new utility possibility frontier lie completely outside the old.²² Samuelson was able to show (1) that free trade was better than no trade at all, in the sense that "more of every commodity can be secured with less of every productive service".²³ Whether or not a welfare improvement resulted depended on the distribution of income and the trade pattern. Only in the case where all individuals had the same tastes was it possible to infer that trade must be beneficial, for only in that case could it be shown that all individuals would be better off with trade than without. (2) Samuelson also showed that if other countries behave competitively, it will pay a country not to trade freely, in order to exploit any monopoly power it may have. This is an argument, familiar to the classical economists, about using a tariff to produce more favourable terms of trade.²⁴

Many economists adopted Samuelson's approach, his results being more precisely stated, and more general ones being derived, such as Kemp's (1962) argument that restricted trade is superior to no trade. Similar results were derived from the point of view of the world as a whole, rather from the point of view of a single country.²⁵

The alternative, utilitarian, approach was taken up by Fleming (1951). His concern was with choosing between alternative systems for regulating trade in order to produce a balance of payments equilibrium, on the assumption that variations in the level of employment, the exchange rate and exports subsidies and capital imports were not available.²⁶ To tackle this problem he adopted a utilitarian criterion, accepting the Marshallian assumption that the marginal utility of income was the same for all relevant individuals. These ideas reached their widest audience, however, through Meade's *Trade and Welfare* (1955), a book parts of which were heavily influenced by Fleming. Meade's main contributions were the introduction of "welfare weights", measuring the assumed importance to society of increases in income accruing to different individuals; and the use of Marshall's consumer surplus to measure welfare changes. The justification for this procedure was purely pragmatic, for Meade wished to deal with a wider class of problems than could be analysed using Samuelson's approach.²⁷ As for the welfare weights, Meade argued that whilst there might be no scientific basis for calculating them, they represented value judgements of the sort that politicians continually have to make.²⁸

A further defence of Meade's procedure is that the Samuelson approach is more restrictive than it might appear. At first sight the criterion that a change represents a potential improvement if more of all commodities is available is an attractive one. Such changes, however, represent a potential welfare improvement only if income can costlessly be redistributed from one individual to another. Given that all taxes other than lump sum taxes

have costs attached to them, and that appropriate lump sum taxes are rarely feasible, there will typically be costs attached to transferring income from one individual to another, which means that even if a change satisfies Samuelson's criterion it may be impossible to produce an increase in welfare.

Customs unions and the second best

Whilst Meade's utilitarian approach to the welfare aspects of trade was important, even more important was his introduction of the term "second best" to describe the type of situation analysed by Fleming, where the ideal, or utopian, solution could not be obtained due to some constraint.²⁹ After developing the theory of second best Meade applied the techniques to a variety of problems in international economic policy. Meade's work, along with Ozga's (1955) analysis of tariffs, and various works on the theory of public finance, provided the starting point for Lipsey and Lancaster's general theory of the second best.³⁰

Of the applications of second best theory in international trade, by far the most important was the theory of customs unions. Though customs unions, where the members of the customs union have free trade amongst themselves, imposing a common tariff barrier against outside countries, had been the subject of discussion for centuries (sixteen customs unions, for example, being formed between 1818 and 1924),³¹ modern discussions of customs unions date from Viner's *The Customs Union Issue* (1950). Viner's main argument as regards the economics of the subject, the book as a whole being concerned with much more than the economics of customs unions, centred on the distinction between *trade creation* and *trade diversion*. A customs union has two aspects: internal free trade and an external tariff. The removal of barriers to trade between members of the customs union will increase trade, countries importing from other members of the customs union goods which previously either were not produced at all, or were produced elsewhere at higher cost. But in addition the external tariff may cause trade diversion: a country may switch from purchasing a good outside the customs union, to buying it from a more expensive supplier within the customs union.

Although it was in *The Customs Union Issue* that Viner applied them to the question of customs unions, the concepts of trade diversion and trade creation were not new. In the 1920s and the 1930s Viner had used these concepts to investigate the implications of preferential (discriminatory) tariffs, and before him the concepts had been used by Viner's teacher, Taussig.³² The origin of these ideas was, however, classical; something which should not be surprising in view of the classical nature of Viner's model. Viner's model has no demand curves, and industries produce under conditions of constant cost. Though they did not neglect customs unions, the German *Zollverein* of 1834 being a subject of their discussions, the main concern of the classical economists had been with commercial treaties which discriminated in favour of a particular country's goods. The Methuen

Treaty of 1703, which diverted British trade from France to Portugal, was a longstanding and widely discussed example.

Viner's classical approach to customs union theory is not the only possible one. It is possible to argue that important aspects of customs unions are suppressed by neglecting demand and by assuming constant costs. For example, even if production is unchanged, a tariff change will enable consumers to substitute goods which have become cheaper for those which have become relatively more expensive. This will affect welfare. Though the analysis of such modifications to Viner's theory is frequently associated with Meade (1956b), Gehrels (1956), Lipsey (1957, 1960b) and Johnson (1964), it is possible to find earlier examples: De Beers (1941) and Byé (1950). Another response to Viner's work is to argue that it fails to provide any justification for a preferring a customs union to free trade: without an external tariff, the benefits of trade creation can be obtained without the costs of trade diversion. A justification for protection has been provided by Cooper and Massell (1965a and b) and Johnson (1965a), using the argument that welfare depends not only on consumption of private goods, but also on public goods, these including nationalism and industrialization, both of which can be increased by protection. As with Viner's arguments, these arguments can be traced back to the nineteenth century. Friedrich List (1841), for example, defended the *Zollverein* in terms of assisting Germany to emerge from the primary producer stage of economic development.

Of more recent contributions, one worth singling out, because of its links with recent developments in microeconomics, is that of Kemp and Wan (1976). They view the formation of customs unions as examples of the formations of coalitions in the context of game theory, reaching the conclusion that for any number of countries it is possible to form a customs union such that everyone, whether inside or outside it, is no worse off than before it was formed. The implication of this result is that there should always be an incentive to form bigger and bigger customs unions until world free trade prevails. They attribute the fact that this process has not in practice occurred to the costs and difficulties of forming coalitions. It is important to note, however, that this result assumes that lump sum (costless) transfers can be made, these being used to compensate losers from the formation of a customs union, this compensation transforming a potential improvement into an actual one. Without the availability of costless transfers their result would be much weaker.

27.2 THE EXCHANGE RATE AND THE BALANCE OF PAYMENTS

The application of Keynesian theory

The theory of balance of payments adjustment was transformed by the application to it of the Keynesian theory of aggregate demand, a process

which started within months of the publication of the *General Theory* with Paish (1936),³³ shortly followed by the more thorough exposition contained in Robinson's *Theory of Employment* (1937).³⁴ It became accepted that the effect of changes in exports on the balance of trade would depend on the marginal propensity to import, a term coined by Paish;³⁵ and that the balance of trade would have an effect on income analogous to that of investment.³⁶ In 1940s various multipliers, both static and dynamic, linking trade and the incomes of trading countries, were derived.³⁷ Though this income-adjustment mechanism went well beyond the classical demand-transfer mechanism, it shared with it an emphasis on quantity as opposed to price adjustments.

*Meade's Balance of Payments*³⁸

In *The Balance of Payments* (1951) Meade integrated the income approach, discussed above, with the more traditional approach stressing the role of price adjustments. In addition he related this to the issue of balance of payments policy, arguing that if the object of policy is to achieve both internal and external balance (i.e. given levels of domestic employment and the balance of payments),³⁹ both price and income adjustments will be needed. If only one mechanism is available the two objectives may conflict.⁴⁰ Meade argued that the solution to the policy problem was to use one policy instrument (say the exchange rate) to achieve external balance, and another (say fiscal policy) to achieve internal balance.⁴¹

Meade's analysis provided scope for generalization and for further analysis. His approach was a special case of the more general theory of targets and instruments developed simultaneously by Tinbergen (1952). Even within the context of internal and external balance Meade's approach could be generalized, as in Johnson (1958), to deal with expenditure switching policies (such as devaluation) and expenditure increasing or reducing policies (such as fiscal policy). A further generalization was Alexander's (1952) absorption approach, which by stressing the income effects of changes in trade remedied Meade's assumption that policy would be used to maintain internal balance all the time.⁴² For example, it follows from the national income identity that the trade deficit or surplus must equal the difference between total domestic absorption (consumption and investment) and domestic production, that a devaluation cannot improve the trade balance unless either domestic absorption is reduced, or domestic production increased. Thus if there is already full employment, and domestic production cannot be increased, devaluation will fail to improve the trade balance unless accompanied by policies to reduce domestic absorption.

Another influential development along the lines set out by Meade was that of Mundell (1962). Mundell introduced the effects of policy on the capital account, arguing that internal and external balance might be maintained by combining monetary and fiscal policy. The rate of interest was introduced alongside fiscal policy as a second policy instrument.

Although neither the interest rate nor fiscal policy was an expenditure switching policy, these policies would have different effects on the capital and current accounts, enabling a trade deficit to be covered by a capital account surplus.

Portfolio approaches to the balance of payments

In the early 1970s a number of economists, of whom Johnson was the most prominent, began to stress a different approach to the balance of payments, the so-called monetary approach.⁴³ The characteristic of this approach was that it focused not on flows of goods and services but on *stocks* of assets. Of particular importance was the link between the balance of payments and the change in the money supply. A balance of payments surplus, for example, implied an increase in the money supply,⁴⁴ which, given the assumption of equilibrium in the money market, implied an increase in the demand for money. The balance of payments could thus be analysed in terms of changes in the demand for money, expenditure flows being seen as responses to such changes in stocks.

Though the early models used in the monetary approach were very simple, concentrating very much on the quantity theory of money, the approach was capable of generalization. One such generalization was to consider a much wider range of assets, not simply money and a single type of bond. The other has been to distinguish much more carefully between short and long run effects. In the short run, for example, the exchange rate can be argued to depend primarily on asset markets: speculative capital flows, dependent on expectations, dominate. In the long run, on the other hand, equilibrium in goods markets, and purchasing power parity, is much more important. Perhaps the most influential model of this type has been that of Dornbusch (1976), who used such a model to explain some of the violent exchange rate fluctuations occurring in the period after 1972. In Dornbusch's model purchasing power parity is a long run equilibrium condition. In the short run, however, exchange rate movements are explained in terms of efficient foreign exchange markets in which investors have rational expectations, and respond very quickly to information about likely trends in prices.

27.3 DEVELOPMENT ECONOMICS PRIOR TO THE MID 1960s

The emergence of development economics

Development economics in its modern form did not exist before the 1940s. The concern of development economics, as the term is now understood, is with countries or regions which are seen to be *under* or *less* developed relative to others, and which, it is commonly believed, *should*, if they are not to become ever poorer relative to the developed countries, be developed

in some way. Prior to the 1940s, economists, with few exceptions, did not share this perspective, being concerned with material progress rather than the more complicated issue of development.⁴⁵ An important change in attitudes came about in the 1940s, for a variety of reasons, some political and ideological, others connected with economics itself.⁴⁶ Economic development, an issue with which colonial governments had increasingly been concerned, was brought into prominence as an official objective when “freedom from want” was included, in a speech by Roosevelt in 1941, as one of America’s four peace objectives.⁴⁷ Concern for development was further stimulated with the establishment, in the mid 1940s, of several international organizations, in particular the Food and Agriculture Organisation (1943) and the International Bank for Reconstruction and Development (1944). By the time the United Nations was set up in 1945, the development of underdeveloped countries had become a generally accepted objective. The establishment of the UN confirmed this, providing a forum through which poorer countries could make their views known.⁴⁸

An important aspect of the emergence of development economics was the increase in the role economists saw for the state and for central planning. During the war all allied governments were involved in planning to some extent, with the UK achieving a particularly high degree of planning.⁴⁹ Though there was considerable debate over the nature of the planning required, planning came to be regarded as a necessary part of the readjustment to peacetime conditions, the price mechanism alone being insufficient for the task. This belief in the need for planning carried over into development economics, a large proportion of economists concerned with the problem of development being in the UK at the time.⁵⁰ Later in the 1940s there was the example of the Marshall plan, and the successful reconstruction of the European economies.

On the economic side two factors were particularly important. The first was the availability for the first time in Clark’s *Conditions of Economic Progress* (1938) of national income statistics showing the extent of the gap between rich and poor countries. From the early 1950s these figures came to be superseded, in particular by statistics, produced by national and colonial governments, emerging through the UN. The second factor was the rise of Keynesian macroeconomics, important for several reasons. It raised the possibility that a variety of types of economics might be needed: in the same way that a special type of economics were needed for advanced countries in recession, so too might a special type of economics be needed to deal with underdeveloped countries.⁵¹ The Harrod–Domar model, an application of Keynesian ideas to the problem of growth, provided a new framework within which problems of development could be tackled. In addition, the rise of Keynesian macroeconomics increased the popularity of aggregative economics, contributing towards the view that development could be equated with increasing per capita income.⁵² The stress on macroeconomic management, together with the acceptance of previously “unorthodox” fiscal measures, fitted in with the stress on planning, and the belief that aid from rich to poor countries could play an important role in the latter’s development.

As development economics emerged, the problem of underdevelopment became associated with two particular problems: underemployment of labour, especially in agriculture; and late industrialization. Particularly influential was Rosenstein-Rodan's (1943) discussion of the problems of south-eastern Europe. He started from the assumption that "about 25 per cent of the population is either totally or partially ('disguised unemployment') unemployed."⁵³ The remedy for this lay in industrialization: "It is *the* way of achieving a more equal distribution of income between different areas of the world by raising incomes in depressed areas at a higher rate than in the rich areas."⁵⁴ This viewpoint dominated development economics for the next two decades,⁵⁵ the problem of development economics being seen as how to get industrialization started, of escaping from one or more "vicious circles": "There is ... the dominant vicious circle of low production – no surpluses for economic development – no tools and equipment – low standard of production. An underdeveloped country is poor because it is poor."⁵⁶ The vicious circle idea proved popular in the 1950s and 1960s,⁵⁷ for it tied in with the notion that development required planning, and it lent support to the notion that development required the provision of foreign aid by the developed countries. Left to themselves, the situation of poor countries would fail to improve.

Development and growth

One of the earliest explanations of why it was difficult to get growth started ran in terms of externalities. Rosenstein-Rodan (1943) conjectured that "External economies may [in underdeveloped countries] be of the same order of magnitude as profits which appear on the profit and loss account of the enterprise."⁵⁸ The training of workers was a particularly important example.⁵⁹ In addition, there was the complementarity which arose from the fact that expansion in one industry would create incomes which would in turn generate demand for other industries. The income generated by a shoe factory, one of Rosenstein-Rodan's examples, will not increase demand for shoes sufficient to cover more than a small proportion of the factory's output. In contrast, if the expansion covers a wide range of industries, the demand generated may be sufficient to cover a substantial fraction of the additional output. Such externalities, together with the further complementarity arising from one industry requiring as an input the output of another, this being introduced by Scitovsky (1954), came to be seen as implying that industrialization could be started only by a "big push":

Proceeding "bit by bit" will not add up in its effects to the sum total of the single bits. A minimum quantity of investment is a necessary, though not sufficient, condition of success. This, in a nutshell, is the contention of the theory of the big push.⁶⁰

Such a big push would have to be planned, in order to produce a balance between industries which took account of externalities, for these would be neglected by private investors.

A similar point was made in a different way by Nurkse (1952), who emphasized the creation of demand. He argued in terms of Say's Law: the

output of a single industry can never create its own demand, for people involved in the industry will wish to spend only a part of their income on their own produce. If, on the other hand, a whole range of industries is expanded, this may create sufficient demand to sustain the expansion.

The notion of balance is inherent in Say's Law. Take Mill's formulation of it: "Every increase of production, if distributed without miscalculation among all kinds of produce in the proportions which private interest would dictate, creates, or rather constitutes, its own demand." Here, in a nutshell, is the case for balanced growth. An increase in the production of shoes alone does not create its own demand. An increase in production over a wide range of consumables, so balanced as to correspond with the pattern of consumers' preferences, does create its own demand.⁶¹

The idea that a large increase in investment was required to start growth was reinforced by conclusions reached using what was overwhelmingly the most popular growth model to be applied to the problem of development: the Harrod–Domar model.⁶² According to this model the rate of growth of national income was given by the ratio of the average propensity to save to the incremental capital–output ratio (ICOR). This can be shown using the following simple algebra, where Y is defined as national income and K as the capital stock.

$$dY/Y = (dK/Y) (dY/dK) = (S/Y) (dY/dK) = s/\nu$$

where s is the average propensity to save, and ν is the ICOR. To increase the growth rate an increase in saving is required, the ICOR being assumed given by the technology. The implications of this were pessimistic for underdeveloped countries. Suppose the ICOR is 4;⁶³ this means that for each 1% increase in the growth rate, 4% of national income must be saved (invested). Thus if the population is growing at 3% per annum, 12% of national income must be invested simply to keep per capita income from falling. Given that in the early 1950s savings ratios in underdeveloped countries were mostly nearer 5%, this was a pessimistic result.⁶⁴

A further important contribution to this view of development as requiring a sudden increase in investment was Rostow's theory of the "take-off", his most widely read exposition of this being *The Stages of Economic Growth: a non-Communist Manifesto* (1960). Rostow saw economies as progressing through five stages: traditional society; the preconditions for take-off; the take-off into self-sustained growth; the drive to maturity; and the age of high mass consumption. Of particular importance was the third stage, the take-off, this having three characteristics: a rise in productive investment from about 5% of national income to about 10%; the emergence of one or more sectors as the "leading sector"; and the modification of the political and social framework so as to exploit impulses coming from the industrial sector, enabling growth to be sustained. Rostow applied this theory to a wide range of countries, some of which had been through the take-off, some of which had not, the latter including countries identified as being in

each of the first two stages. His interpretation of history was subject to severe criticism, in particular by Gerschenkron (1962), who denied that a single framework could be applied even to all the European countries which had experienced industrialization. Despite this, however, Rostow's concepts of take-off and self-sustained growth established themselves firmly in the literature to such an extent that one commentator described the 1960s as "the Rostow period" in the history of development studies.⁶⁵

Dualistic development

An important aspect of the discussions of underdeveloped countries in the 1950s and 1960s was the attempt to explain the coexistence, in many underdeveloped countries, of a modern (often industrial) sector with a backward (usually agricultural) sector. The most influential of such "dual economy" models was Lewis's "Economic development with unlimited supplies of labour" (1954). Its key feature was surplus labour and disguised unemployment in the agricultural sector.⁶⁶ Thus to attract workers out of agriculture, firms in the industrial sector need offer a wage only slightly above the low average product of labour in agriculture. Growth occurs through expansion in the modern sector, capitalists reinvesting their profits, the modern sector gradually absorbing labour from the agricultural sector, a process which continues until the labour surplus is eliminated. Though the mechanism through which growth occurs is different from that of conventional growth models, the stress on capital accumulation and the need for high savings was the same: high profits result in high savings, and hence in capital accumulation and growth.⁶⁷

An alternative approach to dualistic development was that developed by Eckhaus (1955) and Higgins (1956) who found the source of dualism in technological differences between the two sectors. The modern sector is assumed to be very capital-intensive, with only limited scope for the substitution of labour for capital. In the agricultural sector, on the other hand, capital and labour can easily be substituted for each other. Given these assumptions, employment in the modern sector is determined by the capital stock, the rest of the labour force going to the agricultural sector. The over-supply of labour to agriculture lowers the wage rate, resulting in the adoption there of very labour-intensive techniques, and low output per head. The result is a dual economy, there being an enormous difference in output per head between the two sectors. As with Lewis's model, capital accumulation is the key to the expansion of the modern sector, and to the raising of overall output per capita.

Trade and development

Development can also be viewed in the context of international trade.⁶⁸ Two aspects of the orthodox theory of trade are particularly important. First, the doctrine of comparative advantage, according to which countries

ought to specialize in the production of commodities in which they have a comparative advantage. For many of the underdeveloped countries this would suggest that they ought to specialize in the production of primary commodities, using the proceeds to purchase manufactured goods from the developed countries. Second, the theory of factor price equalization, according to which international trade should, if competition is allowed to work, bring factor incomes in underdeveloped countries towards equality with equivalent factor incomes in developed countries. Orthodox theory suggests that underdeveloped countries, as well as developed countries, benefit from their participation in world trade. This view was challenged in the late 1940s, in particular by Singer (1950) and Prebisch (1949), who claimed that protection could be used to stimulate development.⁶⁹

Singer's argument had two strands to it. The first was that, although it led to specialization along the lines of comparative advantage, much investment in the export sectors of underdeveloped countries was, despite its high productivity, less beneficial to the countries concerned than other forms of investment. The reasons for this were twofold: because many export industries were more integrated with the economies of the developed countries than with the economies of the underdeveloped countries in which they were situated, many of the benefits accrued to the former: resources were diverted into industries offering less scope for technical progress and internal and external economies.⁷⁰ The second criticism of such specialization was that, because of different elasticities of demand for the products of developed and underdeveloped countries, the terms of trade were continually moving in favour of the developed countries, contributing to the continued poverty of the underdeveloped countries.

Similar ideas were put forward by Prebisch, these being developed by him and the UN Economic Commission for Latin America (ECLA) during the 1950s into an alternative view of development.⁷¹ Prebisch and ECLA believed that the terms of trade facing underdeveloped countries were deteriorating. They linked this to the bargaining power of workers in industrial countries. Because of their workers' bargaining power, increased productivity in the industrial countries led not to falling output prices, which would have benefited underdeveloped countries, but to rising wage rates. Increased productivity in underdeveloped countries, on the other hand, led to falling output prices. In addition, because technical progress was higher in industry than in agriculture, and because the ability to save was linked to the rate of technical progress, capital accumulation was lower in the underdeveloped than in the developed countries.⁷² There was thus a growing imbalance between the "centre", comprising the industrial countries, which dominated world trade, reaping most of the gains, and the "periphery". For countries in the periphery the remedy was industrialization, with the emphasis on import-substitution, not on production for export, even if this meant producing goods at a higher cost than the cost at which they could be imported. Only in this way could the imbalance between the centre and the periphery be rectified. A policy of protection and import-substituting industrialization was advocated.⁷³ This approach to development was also important in the movement towards integration of

the Latin American countries: not only was such integration seen as a means of avoiding some of the problems which emerged with the import substitution strategy, but also it was a means of increasing the bargaining power of Latin America relative to that of the developed countries.

Theories of uneven development

Another approach to economic development, stressing the essential unevenness of development, though in a different way from Prebisch and ECLA, was stimulated by Hirschman (1958) and Myrdal (1957).⁷⁴ Hirschman was concerned to attack the notion that development had to come through balanced growth, arguing instead that it arose through a "chain of disequilibria": expansion in one industry creates opportunities for other industries; when investment in these industries responds to the new opportunities, this creates opportunities for yet more industries and so on. In such a process two types of effect were important: "backward linkages", where expansion of an industry increased the demand for another industry's output; and "forward linkages", where an industry increased the supply, or reduced the cost of, goods to other parts of the economy. This approach was important for planning, for it suggested that planners, instead of spreading resources over a wide range of industries, should concentrate on a few industries where the linkages with other industries were particularly strong.⁷⁵ Theoretically, the approach is interesting, because of its emphasis on disequilibrium and the process through which price and profit incentives lead to changes in the economy.

Similar ideas were applied, in a less precise, but nonetheless influential, manner, by Myrdal (1957) to the issue of income distribution. He distinguished between two effects: "spread effects", making for greater equality between regions; and "backwash effects", making for inequality. Migration of capital and labour from one region to another, for example, is a "backwash" effect. Localities where the economy is expanding fastest attract migrants and capital investment, exacerbating regional inequalities. Similarly, trade provides greater opportunities for established centres of expansion. As for "spread" effects, these include the effect that increased production in prosperous regions will have on demand for the less prosperous regions' products.⁷⁶ Expansion strengthens the spread effects, recession the backwash effects, with the result that poor countries suffer more than rich countries during recessions. The problem of development was seen in terms of the relative weakness of spread effects relative to backwash effects.⁷⁷

27.4 DEVELOPMENT ECONOMICS SINCE THE MID 1960s

Changing attitudes towards development

The 1950s and 1960s saw enormous apparent progress in development economics. Though there were economists standing outside the

mainstream,⁷⁸ the dominant approach emphasized economic growth through industrialization, this being promoted by policies to increase the rate of capital accumulation and detailed planning. Development plans were adopted by many countries, often in order to obtain finance from international agencies which made such plans a precondition for loans. During the 1960s, however, the emphasis began to change, this approach to economic development being criticized from a variety of points of view, the result being that by the 1970s the emphasis of the subject had changed significantly.

Perhaps the main reason for these changes was that the growth performance of the underdeveloped countries as a whole was not unsuccessful, with many countries and regions growing rapidly, and with no widening gap between rich and poor nations.⁷⁹ The problem of poverty, however, showed no signs of disappearing, growth sometimes being associated with increasing inequalities. In addition it became clear that, whatever the details of the relationship, growth could sometimes have unwelcome political implications.⁸⁰ It became increasingly clear in the 1960s, and even more so after the oil price rises of the 1970s, that it was inappropriate to lump together all underdeveloped countries, the differences between both countries and regions being enormous.⁸¹ In 1964 Singer, contrasting the perspective of the 1960s with the pessimism of the 1950s, wrote, "In the sixties, the complexity of the real world makes a mockery of any preconceived universal optimism or pessimism."⁸² This view was reinforced by studies of past experiences of industrialization which revealed the variety of ways in which this had occurred.⁸³

One result of this has been a changed attitude towards capital accumulation and planning. Development was seen less in terms of capital accumulation, and mobilizing existing resources for investment, and more in terms of the creation of new resources, particularly human resources. The idea that underdeveloped countries were characterized by substantial disguised unemployment in agriculture was questioned.⁸⁴ At the same time there was a change in attitudes towards planning, many economists in the 1960s discerning a crisis in planning.⁸⁵ Planning was seen to have failed.

Another important theme in development economics of the last 20 years has been an increased stress on income distribution, and on the provision of food and other "basic needs". This concentration on the problem of poverty itself has been due to a recognition that, irrespective of whether or not traditional development policies were successful in promoting growth, growth does not necessarily produce the desired results.⁸⁶ An official exponent of this approach has been the International Labour Organisation which, in the 1970s, promoted the basic needs approach, which involved identifying the basic needs of various groups of people and the extent to which these were satisfied.⁸⁷

Neoclassical theorizing

An important characteristic of development economics in the 1960s and 1970s has been a resurgence of neoclassical theorizing,⁸⁸ by which is meant

theorizing based on the assumption that there is a fair degree of flexibility in the economy: people adapt to changing opportunities and to changing prices, albeit sometimes slowly; firms maximize risk- and time-discounted profits, except where the institutional arrangements result in a different objective; the choice of production methods changes in response to price changes; and markets work reasonably well.⁸⁹ This neoclassical resurgence has taken a variety of forms.

In planning there has been a growing emphasis on the role of prices, with new techniques for computing "shadow prices" being developed.⁹⁰ These shadow prices cover all resources, foreign exchange being particularly important for many developing countries. They are defined so as to cover opportunity costs in terms of welfare, not simply in terms of marketed goods and services. Associated with this increased emphasis on prices have been new methods of evaluating the effects of domestic policies on trade and resource allocation. Concepts such as the "effective rate of protection" and "domestic resource costs"⁹¹ have been used to cast doubt on some of the industrialization strategies being pursued. For example, some instances of import-substituting industrialization have been shown to amount to absurdly expensive methods of economizing on foreign exchange. Associated with this has been renewed optimism as to the possibilities for underdeveloped countries to expand their exports: the export pessimism of the 1950s is no longer dominant.⁹² Where there are domestic distortions that the government wishes to correct, theoretical work has suggested that it would be better to deal with these at sources perhaps with a subsidy, rather than introducing protection.⁹³ Thus the emphasis has shifted away from protection and import-substitution towards greater participation in trade.

The view of underdeveloped countries as characterized by subsistence agriculture with surplus labour, and with peasant who fail to respond to market opportunities, has disappeared.⁹⁴ Particularly important was Schultz (1964), who argued that peasants maximized risk-discounted profits. Other research was produced to confirm that agricultural output would respond positively to price incentives.⁹⁵ Though not unchallenged, this work changed attitudes towards agriculture.

A substantial part of this progress can be attributed to the increased use of formal, mathematical techniques for dealing with choice under uncertainty, a development which grew out of the use of such techniques in other branches of economics. Thus formal analysis of problems ranging from the effects of different forms of land tenure on risk-bearing,⁹⁶ to the benefits of price stabilization schemes,⁹⁷ was possible.

Dependency theories

A very different line of development has been the emergence of what are frequently known as "dependency theories".⁹⁸ The dependency involved has been defined by one of its proponents, Dos Santos (1970) in the following way:

By dependence we mean a situation in which the economy of certain countries is conditioned by the development and expansion of another country to which the former is subjected. ... [S]ome countries (the dominant ones) can expand and be self-sustaining, while other countries (the dependent ones) can do this only as a reflection of their expansion.⁹⁹

Dependency theory is about the laws of the internal development of countries that are the object of Imperialist expansion. Dos Santos goes on to contrast this with the situation of capitalist developed economies.

This theoretical step transcends the theory of development which seeks to explain the situation of the underdeveloped countries as a product of their slowness or failure to adopt the patterns of efficiency characteristic of the developed countries (or to “modernize” or “develop” themselves). Though capitalist development theory admits the existence of an “external” dependence, it is unable to perceive underdevelopment in the way our present theory perceives it, as a consequence and part of the process of the world expansion of capitalism – a part that is necessary to and integrally linked with it.¹⁰⁰

Dependency theory appears to have originated in ECLA, but it needs to be distinguished from the Prebisch/ECLA doctrine centred on the centre-periphery dichotomy.¹⁰¹ Unlike dependency theories,

ECLA economic theories and critiques were not based on an analysis of social process, and did not call attention to imperialist relationships among countries, and did not take into account the asymmetric relation between classes.¹⁰²

The new theories are more sociological and political.¹⁰³ From this new perspective the policies sought by Prebisch and ECLA, such as the liberalization of the developed countries’ trade and financial policies, are of no real value to dependent economies. They would only serve to make the “centre-periphery” system more viable, whereas what is needed, according to the new perspective, is to overcome it.

Dependency theory thus stands in the Marxist tradition, though it has more in common with Lenin’s view of capitalism, this owing much to Hobson, than with that of Marx himself.¹⁰⁴ It stands apart from most of the development economics considered in this chapter. One reason for this is that the central concept, that of “dependence”, is hard to define satisfactorily. Even worse, in the words of Little (1982), a relatively orthodox (neoclassical) development economist, dependency theorists “define a concept with a value-laden connotation in a manner that often bears little relation to ordinary usage – the so called persuasive definition”.¹⁰⁵ Marx, for example, defined “exploitation” in such a way that it occurred whenever any enterprise made a profit: in doing this he implies that the very existence of profit is unjust. A value judgement is thus concealed within a definition. In the modern literature on dependency an example is “unequal exchange”, defined as occurring whenever wages in underdeveloped countries are lower than those in developed countries. The existence of “unequal exchange” can be defended on the grounds that such wage differentials do exist. The all important implication that such wage differentials operate to the disadvantage of underdeveloped countries is a contention that never gets proved: it is

smuggled in via the definition of "unequal exchange". Little's conclusion, which would be shared by many orthodox development economists, is that "One result of this linguistic manipulation is that the possibility of serious analysis is greatly reduced."¹⁰⁶ When the value-content of such terms has been neutralized, what remains of the challenge to conventional development economics? The answer would appear to be very little. The *crucial* aspect of dependency theory is that contact with developed countries *worsens* the position of less developed countries, and that this is an *inevitable* aspect of the developed countries' prosperity. Both contentions are hard to prove. In response to the evidence that the standard of living in some less developed countries has improved, for example, resort has to be made to the unprovable, and unfalsifiable, counterfactual claim that in the absence of imperialist intervention living standards would have risen even more. As for reliance of developed countries on "dependent" countries, the situation is even worse for dependency theory. Trade with less developed countries is often of marginal importance for the developed countries: indeed, this is one of the reasons why less developed countries can do so little to improve their situation. If dependence is defined as lack of territorial autonomy, or in terms of trading with certain countries, then dependency becomes tautological: certain countries are simply *defined* as being dependent.¹⁰⁷