

1. Introduction and overview

1.1 WHY CONSIDER EXCHANGE AND DEVELOPMENT?

Exchange is a fundamental component of economic behaviour. Moreover, exchange determines the state and pace of economic development. An exchange-free ‘Robinson Crusoe economy’ – where individual needs are only met through own production, and own consumption is the only outlet for an individual’s production – cannot rise above subsistence level. Exchange allows (1) specialization and division of labour; (2) exploitation of economies of scale in production; (3) improved combination and allocation of factors of production; (4) the transmission of information and innovations; and (5) reaping the result of transactions, thereby providing incentives to economic actors. Each of these functions offers crucial opportunities for improving productivity. Thus, market and non-market exchange is of pivotal importance in the determination of income, the structure and organization of production, satisfaction of needs, income distribution and internal and external equilibrium in developing and developed countries alike.

But the impact of exchange relations extends beyond an interpretation of development in economic terms such as income per head and security and distribution of personal income. Also the wider concept of human development – incorporating additional aspects such as level and distribution of education and information, state of health, justice and freedom¹ – is influenced by exchange relations. Moreover, as will be argued in subsequent chapters, aspects of economic as well as human development in their turn impact on exchange, thereby creating dynamic loops of self-propelling development.

In light of the above, it is surprising that, for a long time, the literature on economic exchange has been rather sparse. In large parts of the economics literature there has been a tendency to treat markets as abstract, featureless phenomena. This neglect can be attributed mostly to the dominant position of the pure neoclassical theory during the greater part of the past century. In neoclassical theory, exchange is assumed to be essentially frictionless and, therefore, of little consequence. Under this assumption there is indeed little to be gained from in-depth analyses of economic

exchange. But the perspective alters drastically when it is realized that economic exchange as it occurs in the real world is a laborious and costly process with uncertain and imperfect outcomes.

Of course, the situation has improved in recent years. A host of studies in the structure–conduct–performance and industrial organization tradition has contributed to a better understanding of the impact that market structure has on firms engaged in transactions. Game theory has unveiled the mechanism underlying the behaviour of economic actors under well-defined conditions, and experimental economics has pointed at unexpected attitudes and reactions of actors when taking economic decisions. Further, the transaction costs literature has demonstrated how various types of transaction costs impact on actors' preferences for one or another transactional framework, called governance structure. Contributions in these and other fields, such as institutional and evolutionary economics, have definitely deepened the profession's understanding of different aggregate forms of exchange and of decision processes followed by economic actors. As a result of the new insights, views of development processes and, with them, development policies have changed.

But some crucial aspects of exchange have still been largely overlooked. For even if we now have better insights as to why some transactions are concluded in a market and others within a firm; or, how industrial structures affect decision making by managers of firms; or, why economic actors sometimes prefer cooperation over competition; it is still mostly unclear why so many vastly different types of transactions can be observed in the real world and which factors determine their shape. In other words, important aspects of economic exchange have remained largely unexplored. So, keeping in mind the fact that exchange is of vital importance to development, there are good reasons for examining exchange in more detail and trying to come to grips with such questions as, how does exchange come about, and which are its underlying elements? First of all, transactions are the uncontested basic unit of analysis in economics.² Therefore, an improved understanding of the factors influencing the characteristics of transactions has analytical merit. Secondly, a better insight into the roots of transactions can clarify certain important aspects of the development process and thereby raise the effectiveness of development policies. Especially in a period where structural adjustment, market liberalization, privatization and globalization are receiving increased attention, a more systematic approach to the study of exchange is becoming necessary.

The above paragraphs describe in a nutshell what motivated us to write this book. The main objective of this volume is to provide an analytical

framework within which the process of exchange can be investigated and clarified. Because of the strong relation between exchange and development, the great majority of the illustrative cases we present below refer to developing countries. But it should be emphasized at the outset that the framework we propose has a universal character applying to developing as well as to developed countries.

1.2 THE NEED FOR AN ANALYTICAL FRAMEWORK FOR THE STUDY OF EXCHANGE

Despite the centrality of exchange to economics, it is not easy to find a conceptual framework of exchange that is able to reflect the diversity of transactions that occur in the real world. Exchange that takes place within formal markets is best studied within the economics literature.³ In fact, the literature includes a most impressive variety of theoretical and empirical studies of market transactions of varying degree of sophistication, relating to all sorts of commodities, services and factors of production and concluded under widely differing conditions. The best among them prove to be of great theoretical and practical value by contributing significantly to the understanding of the operation of prototypical, specific and individual markets.

But these studies tend to have limited coverage and applicability; an overarching framework is lacking. The origins of the differences in decision procedures, form and content of various market transactions remain largely unclear and the question remains to what extent conclusions derived in one market apply in another. An exception, of course, is the transaction costs literature which is expressly concerned with the causes underlying different transactional forms. It shows for certain well-known categories of transactions – market transactions, intra-firm and intra-family transactions – under which conditions economic actors prefer one category over another. But in real life there are untold numbers of different sub-categories of transactions within each of the three categories above, especially within market transactions. The ideal framework for the study of exchange should be able to explain this wide variation of transactions within the main modes. It should provide answers to such questions as: What can we say about the decision processes that lead up to categories of transactions at different levels of disaggregation? Which are the factors underlying the decisions, and are their numbers manageable? And, last but not least, which are the forces of change that propel the dynamics of exchange decisions, and, thereby, the process of economic development?

Moreover, insufficient attention is generally paid to exchange that takes place outside formal markets. In developing countries, in particular, forms of non-market exchange are both socially and economically important. These include non-monetary insurance arrangements, labour exchanges, reciprocal 'gift' exchanges, patronage relations, intra-family transactions, and a variety of other social and cultural mechanisms that work to distribute goods and services among members of a community. Such non-market or semi-market forms are often treated either as if they are insignificant or as if they are distinct from and unconnected to market institutions. As North (1990, p. 11) notes with reference to such organizational forms as the medieval manor and the suq (bazaar market) of the Middle East and North Africa, 'Not only does [neoclassical theory] not characterize these organizations' exchange process very well, it does not explain the persistence for millennia of what appear to be inefficient forms of exchange.'

The purpose of this book is to present a comprehensive analytical framework and to apply it in search for answers to the above questions. As indicated, special attention will be paid to exchange patterns in developing countries. So, with a view to the massive importance of family farms and family businesses in the developing world, we expressly consider non-market (intra-family and intra-firm) transactions next to market transactions. The need for such an approach can be illustrated by a relatively simple example, namely, the decisions typically taken within a family farm regarding various types of transactions. Virtual exchange takes place within the farm household, as household members are allocated tasks relating to farm production and household care. Production inputs like family labour, land, draft animals and machines may be employed entirely for own (family-organized) production, but may also be offered (rented out) to other users in separate markets. Similarly, food produced on the family farm may be consumed entirely by family members, but the family may also decide to sell at least part of it. The point here is, of course, that families often have a choice among different forms of exchange; to disregard one or more of the options would invalidate the analysis. Thus, our premise is that these matters can only be adequately addressed when market and non-market transactions are both included within a unified framework that considers them as being alternative modes of exchange, and that provides means of understanding why such alternative modes exist, how they are selected, how they operate and which relations exist between them. In particular, the main contribution of the analytical framework developed in this volume is to suggest a methodology capable of identifying typologies of exchange configurations within market and non-market settings.

In the following chapters we also examine the prevalence of ‘segmented’ pockets of exchange, with different price levels for similar goods and factors one finds so often in less-developed countries. From numerous case studies, it is clear that there is significantly less integration of exchange configurations in developing countries than in developed countries. Thus, attention will be paid to the differences between formal and informal, and legal and illegal (black) markets and between traditional and modern forms of exchange. An understanding of the functioning of developing economies and of the obstacles and opportunities for economic growth requires insight into the elements underlying the transactions occurring in the developing world.

1.3 THE CONCEPT OF ‘EXCHANGE CONFIGURATIONS’

The conceptual framework developed here is that of ‘exchange configurations’. It allows the tracing back of the form and content of transactions and of the preparatory decision processes to their building blocks. We call these building blocks ‘elements of exchange’. They are (1) the *item* exchanged; (2) the *actors* engaged in decisions related to the exchange; and (3) the *environment* – physical, social, technological, legal and political – within which the actors operate. We postulate that the characteristics of these elements, in different combinations, shape distinct types of exchange relations and help explain their operation. We term an entire constellation – consisting of a particular combination of characteristics of elements of exchange, the decision process actors go through, and the resulting transactions – an exchange configuration. Exchange configurations can be thought of as channels through which specific transactions are effectuated (see Box 1.1 for an illustration). Actors, given their own attributes, the properties of the item transacted and the environment they face, will choose to operate in (or will design) that configuration and corresponding transaction that minimizes perceived transaction costs.

Each of the three elements needs to be broken down into an array of characteristics. The *item* at the heart of a transaction can be a commodity (intermediate or final), a service, a labour service, financial fund, land or foreign exchange. Differences in the nature of these items influence the corresponding transactions. In fact, a more detailed, disaggregated distinction is often necessary to capture and reflect real-life transactions and the corresponding exchange configurations within which they originated. For example, agricultural commodities differ in many respects – such as

BOX 1.1 AN EXAMPLE OF AN EXCHANGE CONFIGURATION

Now let us imagine a concrete situation. A small farmer's household in a Nigerian village has suffered a death in the family and desperately needs to borrow some funds for the funeral rites. In principle, different potential lenders could be approached. In this typical setting the potential lenders are likely to consist of the village branch of a rural bank or a micro-finance institution (both formal lenders) and a number of alternative informal lenders, i.e. professional moneylenders; Rotating Savings and Credit Associations (ROSCAs); traders, shopkeepers and merchants; friends and family.

How would this household decide which source of credit or which lender to approach? The farmer will realize quickly that he is essentially sealed off from formal credit institutions that require collateral and written contracts. This farmer possesses some land but no title. By customary law the land belongs to the village chief who allocates lifetime cultivating rights. Also, because the farmer is illiterate, the thought of a written binding contract is more than he can contemplate.

What about the informal lenders? The farmer has in the past received credit from a trader for a part of his crop to be delivered after harvest time. But the trader will not extend credit on different terms. Most ROSCAs operate in such a way that N members contribute at regular intervals a pre-specified sum S to a cash pool NS , which is then allocated to each member in turn until all have received the pool. Even if the farmer is a member of a ROSCA, he cannot count on receiving the pool prior to the funeral. The next alternative is the moneylender. But the interest rate quoted is unusually high even for this group of lenders, because the moneylender is not well acquainted with the farmer and cannot assess his reputation. This leaves the last alternative: 'friends and family'. Lenders from this group know him well and can assess his reputation; they can exercise a high degree of monitoring at virtually no extra costs and exert pressure on him if necessary. Moreover, as in the past the farmer has helped a neighbour and a relative with a loan under similar circumstances, he has a moral claim to reciprocity.

To the farmer a transaction in the latter configuration is the most

attractive one among the feasible alternatives. The transaction he concludes is open-ended and has no explicit interest rate, repayment date and written contract.

perishability, uses and continuity of production – from other products. Often such more detailed properties appear to be of crucial importance for the shape of transactions.

Attributes of *actors* consist of preferences and objectives and other attributes, many of which can be used as instruments in pursuing the objectives. For individual actors such instruments include income, wealth, skills, education, social position and information. Other attributes – like age, gender, marital status – do not easily lend themselves for use as instruments, but they have a strong impact on the formation of intra-family transactions, especially in traditional societies. Other types of actors, such as firms and non-profit organizations, are characterized by attributes that differ partly from those of individual actors. Many producers, consumers, traders and investors are market actors; a branch manager of a vertically integrated firm and members of a farm household, operating within a firm and a family, respectively, are examples of non-market actors.

The *environment* is the third element of an exchange configuration. Some characteristics of the environment impose constraints on actors' decisions and their choice of transactions, others offer opportunities or provide protection, and still others combine these functions. Characteristics relating to the legal environment (such as property rights, laws and regulations), behavioural codes inspired by norms and values generally accepted in a given society, and characteristics of the physical environment (soil and climate characteristics as well as infrastructure) all have a direct and indirect impact on actions culminating in transactions. Further, the overall level of development of a region or country, as a determinant of purchasing power and the volumes exchanged, affects the degree of specialization that a market can support. Finally, the available technological shelf acts as a bound on the feasible range of market decisions.

Even this brief, provisional description already suggests that each of the three exchange elements has dozens, if not hundreds, of intrinsic characteristics that may conceivably be relevant for the formation of one or another type of transaction. These large numbers of characteristics and the even larger numbers of possible combinations of characteristics raise the question of whether exchange configurations are a manageable analytical instrument. Another problem to be faced is that many characteristics

are not readily quantifiable as they are more qualitative in nature. This is particularly true of some of the dimensions of the environment, such as cultural aspects, the policy and legal framework, and the socio-economic structure. After analyzing both of these crucial issues in detail in this volume, we conclude that an operationally useful number of distinct and manageable exchange configurations can be identified and that the essentially qualitative nature of some of the characteristics of the elements does not present an insurmountable obstacle in defining them.

It must be emphasized at the outset that the exchange-configuration approach is an analytical framework rather than a full-scale theory. An economic theory aims to explain certain economic phenomena in a certain setting by specifying the relations expected to hold among a limited number of selected variables and data. The exchange-configuration approach helps in identifying the crucial characteristics of exchange elements underlying specific transactions and, in so doing, often suggests which theory is particularly appropriate for an explanation of the outcomes. But it is above all an invitation to take a novel look at transactions; to examine what causes transactions to be as they are and to note that the explanation of characteristics of transactions often lies in the details. The exchange-configuration approach offers clues for the identification of the factors that cause undesirable outcomes (be it from a private actor's or from a socio-economic point of view) and for the search for instruments to improve results. It assists in identifying the origins of forces that are capable of altering existing patterns of exchange and in locating the points of impact of these forces. It is also a constant reminder of the overwhelming importance of actors – as decision makers, learners, innovators – in shaping and changing patterns of exchange affecting thereby the state and pace of socio-economic development. It shows why governments, while essential in creating the basic conditions for development, cannot enforce development. Finally, it illustrates the importance of non-economic factors in an economic analysis and confirms once again that economics is a social science.

1.4 THE OBJECTIVES OF THIS BOOK

In an era when structural adjustment, privatization, globalization and the world-wide recession are receiving increased emphasis, a more systematic approach to the study of exchange and its impact on development is becoming necessary. This book is intended to provide the tools with which to better understand the nature and variety of the transactions that take place both within and outside of markets.

The approach proposed here is based on the concept of exchange configurations. It postulates that transactions (individual transactions and groups of homogeneous transactions) derive their form and content from the characteristics of only three types of elements of exchange: the item exchanged, the exchange environment and the actors involved in the transactions. Once a framework has been established and the characteristics of the exchange elements have been identified, the relationship between these characteristics and the shape, content and performance of market and non-market transactions can be explored. In sum, the concept of exchange configurations is an attempt to define a systematic, realistic and operational approach to the study of exchange.

A large number of different market and non-market exchange configurations typical of those found in the developing world and covering a wide spectrum of settings including national and regional staple foods markets, rural informal and formal credit, labour, land configurations and family farms are presented and analyzed. In particular, the process through which transactions are formed is scrutinized. The performance of exchange configurations is evaluated and linked to the overall development process. The evolution of exchange systems throughout history is rehearsed and its contribution to socio-economic development highlighted.

While the exchange-configuration approach is a general approach applying to developed and less developed countries alike, the cases discussed in the book relate mostly to the latter group of countries. By specifying distinct real-life exchange configurations and the key characteristics of exchange elements that constitute them, it is possible to state which characteristics are constraining exchange performance and concentrate reform efforts in these areas, and to predict more accurately when certain types of market reform will lead to perverse results. A better understanding of which characteristics of elements are the cause of market rigidity and friction will allow a policy maker to identify institutional or policy changes that could relax these constraints.

In addition, the exchange-configuration approach can shed light on a range of other questions such as: What is the root of differences between exchange configurations in developing and developed countries? How has the evolution of exchange, from community-based, largely non-market configurations in early stages of development to greater reliance on markets at later stages, contributed to development? What accounts for the greater segmentation and fragmentation of exchange configurations in developing countries? What are the most important factors determining the operation of exchange configurations? Do these factors vary for different types of exchanges, or is there one set of determinants that applies more or less universally? Can anything be learned about exchange in one

developing country from studies in other developing countries, and from studies related to developed countries? Why do some types of exchange continue to occur outside the market within a firm or a family (such as a farm family) rather than within markets? What are the scope for and limitations of government policies in economic exchange? And, what is the role of economic actors in development processes?

1.5 OVERVIEW OF THE FOLLOWING CHAPTERS

Chapter 2 sets out to describe the essence of the exchange-configuration approach. For simplicity of presentation it limits itself to a static interpretation (the time factor is introduced in Chapter 6 and a fully dynamic version is presented in Chapter 7). While the exchange-configuration approach is based on only three elements of exchange (the item exchanged, the actors involved and the exchange environment), the discussion reveals that each of the elements must be divided into subcategories. Subsequently the subcategories need to be represented by a number of meaningful characteristics (or dimensions) in order to be able to explain the properties of the exchange under study. Thus, for example, the item exchanged needs to be specified as a commodity, service or factor of production. Subsequently, the commodity must be identified as an agricultural or an industrial commodity, or as a raw material, intermediate commodity or a consumer or investment good. Finally, the characteristics of the particular item have to be specified. This process of specification of the three elements is fairly straightforward in the great majority of cases, but it requires care and attention to detail as the form and content of the corresponding transactions sometimes appear to depend on rather fine distinctions.

A section of Chapter 2 presents a formal description of the actors' decision-making process. Actors, taking account of the relevant dimensions of the exchange elements, have to decide whether or not to go ahead with a transaction, and, in the first case, have to decide on the form and content of the transaction. The latter decision is strongly influenced by experience with prevailing, similar transactions. But when characteristics of exchange elements change, there may be reasons to deviate from past patterns and design and negotiate for transactions with different form and/or content. The perceived costs of this adaptation process will of course have to be weighed against the expected benefits. This discussion also helps to bring out an exclusive property of actors that sets them clearly apart from the other two elements of exchange: only actors can activate transactions and decide on change. Examples describing the formation of market transactions are based on illustrative cases of primary

wheat-market configurations in Pakistan. Another section is devoted to a discussion of the characteristics of the form and content of market and non-market configurations.

The material presented is then used for a comparison of exchange configurations in developing and developed countries. It is shown how typical differences between the dimensions of exchange elements in these two groups of countries translate into different characteristics of market and non-market transactions. Finally, after having considered the strong relations that interconnect different exchange configurations, the findings of this chapter are summarized graphically in Figure 2.2.

Chapter 3 presents terms, concepts and theories selected from various strands of the economics literature which are used in subsequent chapters where the exchange-configuration approach is built step by step. These concepts help to turn exchange configurations into an operationally useful tool in capturing real-life exchange settings. The terms presented are generally familiar to economists and non-economists alike, but it is important to indicate which more specific meaning is attached to them in this book. The concepts and theories presented here have been selected because of their explanatory power with respect to a wide range of crucial aspects of transactions.

Terms like exchange, transactions, contracts and markets are used frequently throughout this book. But, even if the terms are common, their meaning is not always clear. This applies with particular force to 'markets' as a survey of the literature reveals. In our view, market transactions are self-contained, occur relatively frequently and provide information to third parties. Transactions that do not possess these key properties belong to other (exchange) categories than markets. In the discussion of the above-mentioned terms, the consequences of certain complicating aspects are also considered. Thus, for example, when writing about contracts, attention is given to the fact that contracts cannot always be complete and take account of all eventualities due to imperfect foresight.

We use parts of the new institutional economics (NIE) literature as an underpinning of the decision-making processes preceding transactions. Key concepts in this connection are uncertainty and risk as defined by Knight (1921). Uncertainty derives not only from certain states-of-the-world that cannot be predicted and for which the probability distribution of outcomes is unknown, but also from the fact that actors are unable to process all relevant information due to cognitive limitations. As a result actors cannot obtain optimal results. Given this realization, they typically use 'satisficing' behaviour, accepting outcomes that meet certain minimum standards. Uncertainty is a disagreeable and unwelcome phenomenon, not

only in connection with transactions. This is why institutions are extremely useful as they help to reduce uncertainty by structuring human behaviour. North distinguishes between formal institutions (shaped and enforced by public authorities) like laws and regulations and informal institutions like customs and traditions.

The purpose of transaction cost economics (TCE), as developed by Williamson, is to explain the existence of alternative modes of organizing transactions. Examples of such modes, or 'governance structures', are markets, firms, hybrids, families and public bureaus. Predictably the main argument of TCE revolves around the concept of transaction costs, that is the costs of preparing, executing and adjusting contracts. Transactions are characterized by the prevalence of different mixes of complicating factors. These complicating factors are uncertainty, asset specificity and frequency, in combination with human characteristics like limited rationality and opportunism. Actors can reduce the impact of these factors, in particular the transactions costs they imply, by placing transactions under the most appropriate governance structure. Thus, there is a certain correspondence between TCE and the exchange-configuration approach. Roughly speaking, the former uses transaction costs to explain alternative aggregate modes of transactions, whereas the latter uses the same concept (next to elements of exchange) to explain the multitude of transactional forms within the aggregate modes.

The last two sections of Chapter 3 introduce dynamic aspects of actors' behaviour. Section 3.4 presents a brief discussion of the structure-conduct-performance (SCP) approach. This approach stipulates that the structure of the market in which firms operate determines the opportunities and limitations firms face regarding their conduct (that is, their tactical and strategic moves) which, in turn, determines their performance. The argument, which is limited to the operation of firms in a market context, can be generalized to fit the exchange-configuration approach. This section illustrates the immense importance of the capacity of actors to learn, evaluate, innovate and decide. Section 3.5 explores this unique capacity in more detail. It shows among others that organizations are in a remarkably good position to learn.

Chapter 4 contains a systematic discussion of the three exchange elements, more particularly of the characteristics of their subgroups and components. In so doing, it illustrates the vital differences between the elements, but it also provides ample opportunity to point at the close connections that sometimes exist between and among elements. For example, labour services, as items exchanged, are closely connected with their suppliers, an actor group. Further, because of this close connection, inherently

dangerous work threatens the safety of workers. So governments enact rules and regulations (a component of the exchange environment) to protect workers from hazardous work conditions, another connection between two elements.

The item exchanged appears to be a very powerful determinant of the form and content of transactions. It is not coincidental that markets are traditionally named after the items traded within them. Section 4.3 lists and discusses a great variety of dimensions of subgroups of products, services and factors of production, often accompanied by an explanation of how a particular dimension of an item affects transactions. The variety of items is much too wide to allow an extensive discussion of each. However, an exception is made for credit (as a factor of production) which is examined in some detail. The pivotal characteristics of credit are (1) the lender repays the borrower at a later date, and (2) the borrower is free to transform whatever has been provided in loan. As lenders run considerable risk, they will seek security from borrowers, preferably in the form of material collateral that allows a straightforward value assessment. But the majority of individual borrowers in developing countries cannot offer more than their reputation as collateral. Obviously this type of collateral can be assessed only by those who know the borrowers and who can monitor their actions. As a result we see that each of two categories of borrowers (with and without material collateral) do business with one of two categories of lenders, that is formal credit suppliers like banks (money creating financial intermediaries, subject to registration, regulation and monitoring by monetary authorities and to public-policy measures) and informal lenders like employers, shopkeepers, professional moneylenders and friends and family. In other words, the two well-known characteristics of the item 'credit' appear to differentiate between different actor groups on either side of credit markets and thus to give rise to entirely different (formal and informal) exchange configurations.

The exchange environment typically consists of multiple components. Specific items and actor groups that play a role in certain types of transactions can be identified and singled out through a simple process of disaggregation and their relevant characteristics suggest themselves in most cases without much difficulty. The exchange environment is more unruly in this regard. It is rarely immediately clear without preliminary research which specific properties of the various components may have a significant impact on the transactions under study. Section 4.4 is concerned with a discussion of three clusters of environmental components. The first cluster consists of the cultural, political and legal components. These components define the institutional environment that is meant to structure human behaviour, including behaviour relating to exchange. Their impact on

transaction costs and on the pace of development has recently attracted much attention. Secondly, we discuss the physical and technological environment. The rural–urban dichotomy and the extent and quality of the infrastructure figure among the most important aspects of the physical environment. Regarding the technological component it is observed that developing countries have a limited capacity to absorb and apply modern production techniques. The result is that isolated pockets applying state-of-the-art technology co-exist with production units using traditional techniques. The third cluster consists of the socio-economic environment defined mainly by the state of economic development.

Actors are discussed in Section 4.5. Actor groups can be distinguished according to their status and position (such as firms and other organizations, individuals, family members) and to their economic function (such as lenders, borrowers, employers, workers, exporters, importers, consumers, savers, investors). In many cases both distinctions apply. Each actor group evidently plays a different role in exchanges, so it stands to reason that the prominent characteristics also differ with these roles. Still, while the combinations of characteristics differ with the roles, it appears that general categories of characteristics apply to and are relevant in each type of role. We distinguish five such categories of actors' attributes which are discussed in some detail: (1) number, density, institutional and organizational form and bargaining power; (2) assets, liabilities, entitlements and income; (3) objectives, preferences and personal beliefs and attributes; (4) relations and instruments (related to 1 and 2); and (5) information and attitude towards risk and uncertainty.

Actors take a unique position among the elements of exchange. They collect and process information about the relevant dimensions of the three elements of exchange and, if they are satisfied with the form and content, they activate transactions. Transactions depend entirely on this capacity. But there is more. Besides being decision makers actors are also learners and innovators. They can change organizational forms, improve their skills, save, borrow, purchase investment goods, invest time, money and effort in technological progress, and so on. In other words, they can alter certain characteristics of exchange elements in order to improve the outcomes of transactions in which they participate. In short, actors play a crucial, active part in the dynamics of exchange.

The main objective of Chapter 5 is to demonstrate how different combinations of environmental settings, characteristics of items and attributes of actors can be identified which together yield relatively distinct and homogeneous transactions and corresponding exchange configurations. The process required to capture distinctive exchange configurations consists

of selecting the most important elements among the large set reviewed in Chapter 4, namely, those that have the greatest discriminatory power and are most strongly associated with other elements – so that they can act as representative proxies for the latter with which they are correlated.

Two key obstacles have to be overcome in this process of deriving a set of representative exchange configurations. The first obstacle is the multi-dimensional nature of many of the elements. For example, actors in their decision-making process are influenced by a whole set of attributes such as income, assets, education, size of household, preferences and degree of risk aversion. In turn, the physical and locational setting within which actors enter into exchange transactions is composed of multiple dimensions. Obviously, for analytical purposes, it is neither possible nor desirable to take on board all of the attributes of actors and dimensions of the environment. Only those elements that are most representative and robust should be selected in capturing a specific exchange setting. A second obstacle is that many of the dimensions and aspects of elements can only be measured in an imperfect way – implying that in a number of cases qualitative or categorical estimates have to be used.

Fortunately both obstacles can be surmounted because of two key properties shared by many elements, namely, that they tend to (1) have non-continuous and often bi-modal distributions, and (2) be highly inter-related. These properties and the fact that it is costly to design new forms of transactions (thereby limiting the number of alternative forms) are crucial in deriving typologies of exchange configurations for different items in different settings.

The main contribution of Chapter 5 is to develop a methodology yielding a number of distinct and operationally useful exchange configurations. Firstly, we argue in Section 5.2 that the number of configurations is limited and therefore manageable. Secondly, in 5.3 we apply the methodology to derive a set of relatively typical product-exchange configurations from seven characteristics of exchange elements reflecting the setting prevailing in the developing world. These different configurations are described including the process through which transactions are determined in each case.

Chapter 6 is devoted to an analysis of exchange configurations at various stages of development and their evolution. An essentially comparative static approach is adopted comparing the typical exchange configurations prevailing during three phases of development (early, middle and mature) and setting the stage for the dynamic approach to the evolution of exchange configurations in Chapter 7. The analysis starts with a discussion of forms of exchange in subsistence-oriented economies – by far the dominant form

throughout much of past history. Under the conditions existing in such societies (few means to control the natural environment and extremely high costs of external exchange) a communal approach to production and consumption offered the best chance of survival. Codes of behaviour and traditions that varied with the type of organization (for example based on reciprocity or redistribution) supported intra-communal exchange.

Markets are a relatively modern phenomenon; even today the transition towards market exchange is ongoing in many parts of the world. The origins of the general transition process from barter to market exchange are the subject of much speculation. In fact, market exchange may have developed more or less independently in various places well before physical market places emerged in Lydia and Greece around 500 BC. Similarly, as described in Section 6.3, there are various ways in which market exchange, after having been introduced in a society, can encroach upon community-oriented exchange. Different theories are reviewed speculating on the conditions leading to market transition and the factors contributing to communities switching from community-based to market transactions.

A key contemporary issue concerns the decisions taken by individual present-day actors, such as rural households in developing countries, whether or not to participate in market exchange. It appears that several characteristics of exchange elements need to be considered in answering the above question. First of all, a farm household's decision to sell part of its output depends on the magnitude of its marketable surplus which depends, in turn, on household characteristics such as size, age and gender distribution, area of land owned, and access to draft animals. Further, when risks caused by pests, diseases and vagaries of the weather cannot be insured, less efficient production technologies that limit variation in output become more attractive (smallholders select a technology with a lower expected mean but also lower variance). The marketable surplus is reduced further when households do not have access to rural credit. Finally, such characteristics as poor infrastructure, incomplete information and limited competition widen the width of the band between the prices consumers pay and the prices received by farm households. The wider the band, the unlikelier it is that households participate in these markets as their net profits fall accordingly.

Section 6.4 is devoted to an exercise in comparative statics analyzing how changes in the exchange elements affect the form and content of transactions and the corresponding exchange configurations within which they occur. Three broad phases of development are reviewed. On the basis of two main sets composed of a few discriminating and interconnected elements, a number of typical and distinct exchange configurations prevailing in each of these phases could be identified. The first set combines

technology (a component of the exchange environment) with *form of organization* (a characteristic of actors). Two states are distinguished: modern and traditional. The second set combines *geographical location* (another component of the environment) with *nature of product* (describing the item exchanged). Here a two-level distinction is made between rural and urban on the one hand and agricultural and non-agricultural on the other.

In the early development phase family-farm configurations applying traditional technologies and forms of organizations and operating in a rural, agricultural setting dominate. The distinctive characteristics of the exchange elements and of the ensuing, often inward-looking transactions are summarized in Figure 6.2. Other actors like cottage enterprises and urban firms in the handicrafts also employ traditional technologies. Modern enterprises are relatively rare.

The great majority of present-day developing countries have reached by now the middle development phase displaying a dual-dual structure in which rural and urban and traditional and modern sectors claim significant shares. When examining and comparing the characteristics of exchange elements in the latter two sectors one understands that tensions of a combined economic, social and cultural nature can easily flare up in this phase. Figure 6.3 gives details.

Finally, the mature development phase describes the dimensions of exchange elements of present-day developed countries. The traditional sector has practically vanished. Governments have reached a considerable size as their administrative capacity has increased vastly. Social-security schemes have been introduced, thereby eroding the role of social networks (families, clans, neighbourhoods) for mutual assistance.

The dynamic forces driving exchange configurations, which are only hinted at in earlier chapters, are the exclusive subject of discussion of Chapter 7. They derive their immense importance from the fact that they are also the forces propelling economic development. The number of these forces of change appears to be fairly large; they also differ considerably in terms of origin, nature and impact. So, in order to facilitate the discussion, the first task is to form categories of forces of changes that are homogeneous in origin and nature. We distinguish, for this purpose, between endogenous and exogenous dynamic forces on the one hand, and between intended (or premeditated) and unintended dynamic forces on the other. Endogenous forces emanate from decisions by actors in the exchange configuration(s) under consideration; exogenous forces have a different origin. Intended forces (in contrast with unintended forces) derive from premeditated decisions and acts intended to affect transactions. The four-way distinction

that results (see Figure 7.1) is a useful guideline for the ensuing discussion as it yields easily recognizable categories of dynamic forces. They are: (1) actors' strategies and tactics (endogenous and intended); (2) public policies (exogenous and intended); (3) loops or feedbacks in exchange systems (endogenous and unintended); and (4) shocks (exogenous and unintended).

The intended forces of change can be described as the private and public policy measures relating to transactions. From the point of view of the exchange-configuration approach they are more interesting than the other forces. Intended forces are meant to change the transactions' form and/or content. They also reflect dissatisfaction with the outcomes of prevailing transactions which indicates, in turn, that some form of evaluation of these outcomes preceded the private or policy actions. Section 7.3 describes how different groups of policy makers can learn from the evaluation of various types of transactions.

The discussion of actors' strategies and tactics adds a new and vital dimension to the characteristics of the exchange element actors. We argued earlier that actors stand apart from the other elements because only they can breathe life into transactions. Here, we highlight the additional role of actors as learners, transformers and innovators effectuated through the strategic and tactical moves they undertake. Strategic moves in the exchange-configuration approach are defined as the moves that alter aspects of exchange elements; tactical moves take the prevailing exchange elements as given. It follows that strategic moves are especially powerful as they change the rules of the game and create a new transactional setting. Different actors have different instruments at their disposal to implement their strategies and tactics. In particular, firms can draw on a wide array of instruments. Figure 7.3, which presents a selection of instruments, also shows that instruments vary with the type of transactions.

Government policies aimed at transactions are complementary in a number of ways to the measures used by private actors. Thus we see, for example, that the strategic instruments of private actors impact primarily on the exchange elements actors and items exchanged. On the other hand, the instruments of governments affect the environment. The difference in the orientation of actions by private actors vis-à-vis policy measures undertaken by governments derives, of course, from the complementary task of public institutions in market economies. Another extremely important difference relates to the impact on transactions. Governments are indispensable for a proper functioning of market economies and they can wield enormous power, but their influence on transactions is only an indirect one. The final decisions regarding transactions are taken exclusively by actors.

Exchange configurations – especially market-exchange configurations

– affect each other through a variety of loops or feedbacks. The latter form a separate group of forces of change as they are endogenous (they emanate from decisions by actors), but unintentional. Examples are external effects (positive or negative), multiplier effects (*idem*), the flows of information that markets generate and changes in attitude brought about by the confrontation of segments of the population with alien values as markets expand.

Shocks are exogenous and unintended by nature; they just happen. They are, therefore, less interesting from an analytical point of view than the other dynamic forces. Still, they are not to be overlooked. Some shocks – such as wars, revolutions, natural disasters and demographic developments – have a large-scale, lasting and penetrating effect on many transactions. The effect of micro shocks – like a death in a family, a fire or burglary – can also be dramatic, but is more limited in range.

Chapter 7 ends with a presentation of six historical cases, spanning two millennia, illustrating the dynamics of exchange. The cases include the rise of market places and manors, the commercial revolution, town guilds and commercial and industrial capitalism. The description of these cases demonstrates the great variety of form that dynamic forces can take in the real world and especially also the revolutionizing energy they can unleash. The cases further show how endogenous forces of change grow in importance over time relative to exogenous forces.

Finally, in Chapter 8, we present some selective concluding messages to illustrate a number of aspects of the interdependence between exchange and development and of applications of the exchange-configuration approach. The messages cover the following six themes: (1) the interrelationship between the process of exchange and economic development; (2) the significant differences between the exchange process in poor countries and in rich countries and some characteristics of the exchange process in countries at an early stage of development; (3) economic development and the roles of actors and governments; (4) the vital role of learning in the dynamics of exchange; (5) the contemporary global financial crisis explored within the exchange-configuration approach; and (6) the differences between the exchange-configuration approach and the strict neo-classical framework and its potential contributions to the latter.

NOTES

1. The UNDP Human Development Index is based on only three, broadly quantifiable variables, *viz.* income per head, education (as measured by enrolment and adult literacy) and life expectancy.

2. Commons, 1934.
3. Yet even such a basic concept as 'market' lacks a widely accepted definition. We return to this subject in Chapter 3.

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