

ECONOMIC DEVELOPMENT AND THE TRADITIONAL SECTOR: A COMPARISON OF JAPANESE AND AFRICAN EXPERIENCE

RICHARD GRABOWSKI

IN much of the thinking concerning the development process theories of dualism are dominant. In this perspective the economy of a less developed nation is generally divided into two sectors. These two sectors have been labeled a number of different ways. Sometimes the distinction is made between the modern and traditional sector or sometimes in terms of agriculture and industry. In all of these theories development is perceived to occur as a result of the expansion of the modern industrial sector, the contraction of the traditional agricultural sector, and the absorption of the labor force into the former.

In this paper a critique of the dualistic models of development will be presented. An alternative interpretation of dualism will then be developed that is based upon the work of Myint. The role of government policy in this type of model is then explored.

Section I of this paper will briefly review the basic tenets of the dualistic model of development as well as its policy implications. In section II an alternative view of dualism is presented while section III discusses a traditional-sector strategy of development based on this alternative view of dualism. Section IV explores the role of government in the development process. The experiences of Japan prior to World War II are used as an example of a strategy of development aimed at enhancing the productivity of the traditional sector. Alternatively, the experiences of much of Africa are used to illustrate how governments have often behaved in a predatory manner toward the traditional sector. The Japanese and African cases are compared because they represent, for the most part, polar opposites. In one case the traditional sector is fostered, while in the other it is plundered. Finally, section IV will summarize the paper and briefly discuss a few policy implications.

I. DUALISTIC MODELS

The main characteristics of dualistic development models are best represented in the work of W. Arthur Lewis [10]. In his work the economy is divided into the traditional and modern sectors. The traditional sector includes peasant agriculture, but also other sorts of traditional occupations. Production methods are labor intensive and use relatively simple technologies. The decision-making process in

Much of the discussion is drawn from Richard Grabowski, "Development as Displacement: A Critique and Alternative," *Journal of Developing Areas*, Vol. 23, No. 4 (July 1989).

this sector is not rational in the sense of maximizing profits, instead work-sharing agreements abound in which the marginal product is below the wage rate which is itself institutionally determined. Whether or not the marginal product is zero in this sector has generated a great deal of controversy, but the issue is unimportant for the purposes of this paper. Lewis does, however, stress the importance of the existence of an unlimited supply of labor originating from this sector.

The modern sector includes both manufacturing and modern agricultural production. The technology is modern and capital intensive and it is assumed that firms maximize profits by hiring labor up to the point where the marginal product of labor is equal to the wage. Savings are assumed to originate only from profit income. As these profits are invested, the demand for labor increases, pulling labor into the modern sector from the traditional sector. This continues to occur until labor in the traditional sector becomes scarce (supply curve of labor turns upward). At this point the traditional sector is commercialized and labor is hired up to the point where the marginal product is equal to the wage.

Ranis and Fei [16] extend the Lewis model by introducing an intermediate stage prior to commercialization. Specifically, if the marginal product of labor is positive, as labor is drawn out of the traditional sector and presuming that the traditional sector produces food consumed by the modern sector, then the terms of trade will turn against the modern sector and wages there must increase. As a result, profits in this sector will decline, investment will slow down, and, perhaps, growth will stop prior to the commercialization of the traditional sector. Thus balanced growth is the appropriate strategy to follow, and investments must be made in agriculture as well as industry.

Jorgenson [8] has extended the dualistic model by dropping the assumption of an unlimited supply of labor. In his model the two sectors are agriculture, which uses labor and land, and industry, which uses capital and labor. A necessary condition for the creation and growth of an industrial sector is that an agricultural surplus must emerge and this can occur only if the rate of technical change in agriculture is increased relative to the rate of population growth. If this condition is not met, then the economy will be caught in a low-level equilibrium trap.

All of these dualistic models have a number of common characteristics. They are basically two-sector, closed models in which balanced growth is a necessary outcome. Specifically, unless the productivity of the traditional rural sector is increased simultaneously with the expansion of industry, the latter will cease. Success in all of these models occurs when the population has been transferred from the traditional sector and the sector eliminated.

There are a number of critiques that one could make of this type of model. The models ignore the role of the agricultural sector as a source of demand, a market, for the output of the modern sector. They concentrate only on the supply side in terms of agriculture contributing to the supply of labor, food, and savings for the modern sector. Some economists believe that the demand-side role is of much greater importance in the overall process of development [11].

Also many of those dualistic models presume non-maximizing behavior upon the part of the inhabitants of the traditional sector. This has sometimes been used

as an argument for squeezing surplus out of the agricultural sector. The notion is that if peasants and other members of the traditional sector are not economically rational (do not respond to prices, etc.), then surplus food and savings can be extracted without harming production incentives in this sector. As a result, agriculture has often been ravaged with significant negative impacts on its own growth.

Myint [12] has also pointed out that allowing for trade, an open economy model, changes the perspective significantly. In simple terms, if the less developed nation is open to trade then it can rely on external markets and thus the traditional sector would not need to serve as the market for the output of the modern sector. Thus the necessity for a balanced growth strategy disappears.

Perhaps the most telling criticism of the dual-economy model has been provided by Bruton [5]. He argues that the simple lesson provided by the dualistic models is that economic development proceeds as a result of the displacement of the traditional sector by the modern sector. In the dual-sector models the traditional sector is viewed as being inferior in a number of ways. For example, it uses backward technology, harbors surplus labor which is unproductive, and allocates resources in a non-economic manner. Thus development can only occur if this sector is eliminated and its population absorbed into the modern sector. In this case the modern sector's institutions and production relations are viewed as being superior and are generally very similar to those identified with Western industrial production. Thus development from this perspective involves the displacement of the indigenous institutional structure and its replacement by an institutional structure based upon that in the West.

The result, according to Bruton, is a very costly form of economic growth. When accepted institutions, values, and mores are displaced, individuals find that these things possessed a value in and of themselves. Thus the displacement leads to a reduction in individual welfare. In addition, institutions are the rules of a society or organization that facilitate coordination among people by helping them form expectations which each person can reasonably hold in dealing with others. An alternative, but similar, view of institutions is that they are collective action in control of individual action. They derive their power from their being accepted by the population at large as being legitimate. Once the indigenous institutions are replaced with imported ones, the latter often lack legitimacy and widespread acceptance. As a result, uncertainty concerning other individual's behavior is dramatically increased resulting in an unwillingness to obey the imported rules and increased corruption. There will likely be a need for an increased bureaucracy to police and enforce the rules. Thus the costs stemming from the growth are likely to be quite high, dramatically reducing the net benefits.

Finally, development by displacement results in a form of dependency different and more subtle than outlined by many modern Marxist theories. They emphasize the role of the metropolitan (developed) nations in extracting surplus from the periphery and thus inhibiting the development of the latter. Bruton's view of dependency is significantly different. As development occurs through the displacement of the indigenous institutions of the traditional sector, then the source of dynamism in the economy is external in nature. Thus the economy may achieve

relatively high rates of growth, but the sources of innovation, in terms of institutions and technology, are imported from the West. Thus creativity and innovation are not internalized within the developing country itself and the resulting growth is thus a very fragile thing indeed. As innovation slows down in the already industrialized countries, it will also slow within the periphery. The institutional structure necessary to internalize the innovation process has not been created within the developing country.

II. DUALISM: A REINTERPRETATION

In this section of the paper an attempt is made to reconstruct the notion of dualism in light of the criticisms, particularly those of Bruton, raised above. In order to do this, some time will be spent discussing the concept of market failure.

Kaldor [9] has argued that one should distinguish between the allocative and creative functions of markets. The allocative function involves moving an economy to the optimum point on a given production-possibilities curve, while the creative function shifts the curve outward. As pointed out by Arndt [3], much of the criticism of neoclassical development economics has centered on the failure of markets in less developed nations to promote allocative efficiency. Structuralists have argued that in less developed nations prices may give the wrong signals due to monopoly influences, factors of production may respond inadequately to price signal, and, finally, factors of production may be immobile.

It would seem, however, that for the purposes of development, the creative functions of the market are more important. That is, markets are also involved in the mobilization of savings and investment for the creation of new physical and human capital and for the development of new technology. Markets may, for example, fail to generate correct signals in capital markets and thus the amount of savings and investment is dramatically reduced. One can think of the arguments made concerning the pecuniary externalities involved in investment. Specifically, a single investor may not view an investment in a particular factory profitable given the limited market available. The same sort of reasoning holds for other investors considering other lines of production. However, if all the investments were made simultaneously a large market would be generated, making each of the investors projects relatively profitable. Thus the need for a balanced growth strategy. In addition, the existence of monopoly or monopsony may limit investment in research aimed at developing new technology and/or limit the diffusion of new technology.

The discussion of market failure, both in the allocative and creative sense, presumes that the markets and the necessary supporting institutions to make the markets work are in existence. As Arndt pointed out, one might also think of market failure in a third sense. Specifically, markets may not exist or exist to a limited degree, limited by the inadequate development of the appropriate supporting institutions.

The limited development of markets and their supporting institutions is linked to the problem of high transactions costs. Dahlman [6] classifies transaction costs based on the different phases of the exchange process. The first step in the

exchange process requires that the parties seeking to exchange must search each other out and this is certainly a costly process. Once the parties have found each other information concerning exchange possibilities must be exchanged and this will require resources. If there are a large number of individuals involved, additional costs are involved in coordinating the plans of individuals. Costly bargaining will be necessary in order to determine the terms of trade. After a bargain has been struck, it must be monitored and enforced so as to ensure that the stipulated obligations are carried out. In summary, there are search costs, bargaining and decision costs, policing and enforcement costs. Corresponding to these, there must be a set of rules limiting the types of behavior which will be allowed to occur in the search, bargaining, and enforcement phases. Thus search, bargaining, and enforcement occur within the context of a set of rules governing behavior in these phases. The set of rules represents the institutional structure.

Perhaps a simpler way of looking at this is to perceive the problem as one in which the uncertainty concerning what one can expect from other people, in terms of behavior, is the underlying problem of human relations. This makes exchange extremely costly. As a result, institutional rules must be developed which limit individual behavior so as to create an environment in which one can, with some assurance, predict the type of behavior or range of behavior which is likely to occur. Thus markets and their supporting organizations reduce opportunity costs, thus allowing exchange to occur. However, it must also be kept in mind that organizing the system of institutional rules is also subject to the same sort of transactions costs discussed above. Thus exchange may fail to take place or occur to a limited extent because of the lack of a set of institutional rules, which creates assurance, and the institutions themselves do not exist or only incompletely exist because of the high transaction costs of organization.

Myint [13] has labeled this lack of institutional development as organizational failure and argues that this is the main characteristic of the traditional sector in less developed countries. Previously, it has been argued that transaction cost arises as a result of a lack of information. In addition to this type of cost Myint adds transportation costs. Myint includes such costs because they are a source of regional or wholesale-retail price differentials which represent what he calls the fragmentation or segmentation of markets.

Myint's view of a dualistic economy is thus very different from the models reviewed earlier in this paper. Basically the modern sector is composed of households and firms and is a fully organized economy in which markets and their supporting institutions and an extensive transportation network exists. Thus exchange through the market is prevalent and transactions costs are low. This modern sector is only very loosely connected with the traditional sector. The latter consists of household firms since they perform the functions of both wage households and business firms. They are generally peasant farmers and members of what is often called the informal sector. The household firms in the traditional sector maximize utility just as households in the modern sector. However, the budget constraint faced by firm households is determined by what is earned from the households labor, land, and capital. Also the utility functions of the household firms include the

consumption of home produced goods as well as the profits that can be earned by sale outside of the firm.

The existence of such a traditional sector implies that dualism exists in the markets for goods, capital, labor, and land. In the goods markets, prices for similar goods will vary dramatically between the traditional and modern sector and even within the traditional sector itself. Specifically, differentials with respect to goods prices between the modern and traditional sector are likely to exist due to transportation and transaction costs differences. Even within the traditional sector, markets and their supporting institutions are likely to exist in varying degrees of development throughout the traditional sector. Thus the prices of goods will vary significantly throughout the traditional sector. The same sort of argument can be made with respect to labor, capital, and land markets.

Thus the picture of the traditional sector which emerges is that of a series of islands of economic activity within which markets and their supporting institutions are either not functioning at all or only to a limited extent. As a result, each of these islands of activity is only very tenuously connected to others and to the modern sector. Thus it is not possible to think in terms of a production function or production frontier representing the traditional sector. There are instead a variety of technologies being utilized in a variety of different circumstances. These techniques are chosen by household firms attempting to maximize their income (utility) by allocating resources relative to the prices of factors and products they face in their particular localities. Thus the traditional sector is broken up into a large number of narrow, segmented local markets.

As a result of the above analysis, the limited and varying degrees to which individual household firms enter into the exchange economy does not represent irrational, noneconomic behavior, as proposed by Lewis and Ranis-Fei. Instead, the extent to which household firms are commercialized depends upon the extent to which markets and their supporting institutions have evolved. The lesser the extent to which this has occurred, the less the household firm will be engaged in market exchange.

III. THE DEVELOPMENT PROCESS AND THE TRADITIONAL SECTOR IN JAPAN

The arguments of the previous section have described the traditional sector as being characterized by the limited development of markets and the necessary supporting institutions for those markets. The latter have failed to develop due to the high transaction and transportation costs involved in organizing these types of institutions in the traditional sector. As a result prices vary within the traditional sector and a variety of techniques of production are used. Also the household firms are involved in market exchange to varying extents. Within this context it is possible, according to Arndt [3, p. 227], to envision a process by which development would occur naturally.

As the modern, fully organized, sector expands through the expansion of production designed for exports and the importation of new technologies, income levels will grow, transportation systems will expand, reducing the costs involved

in organizing markets and their supporting institutions. This has certainly occurred in the past. However, this process is likely to be too slow to meet the urgent needs of the less developed countries. In fact Arndt argues that markets work incrementally. As a result, he believes that the likelihood of market failure is a function of the degree of urgency or impatience attached to a particular change. This is a most interesting extension of the concept of market failure in that it introduces time as an aspect or dimension. Specifically, if one takes a very long-run view then the problem of market failure becomes much less of a problem. It is largely as one shortens the time horizon that market failure becomes important. Thus the case for government to play an important role in the development process rests on the notion that what is needed is rapid development.

The perspective taken in this paper casts some doubt on parts of Arndt's argument as presented above. Specifically, the expansion of the modern sector may not spur the organizational development of the traditional sector. As was argued in previous sections of this paper, this type of development is often accompanied by the importation and utilization of imported institutions and organizations. The net result is the destruction of those institutions and forms of organizations which characterized the traditional sector. If the imported institutions and organizations are not accepted as being legitimate, then they will fail to provide the assurance necessary so that individuals can develop reasonable expectations concerning the behavior of others. As a result, the transaction costs of organizing markets and their supporting institutions are likely to increase, not decline. The traditional sector will become further separated from the modern sector and become even more segmented within.

This indicates that market failure is not just a function of the degree of urgency attached to the development process. Market failure may increase in intensity through the clash between the organizational forms of the traditional and modern sector. Thus as time passes the extent of market failure may actually increase as a result of this interaction.

The role of the government in this development process is a complex topic. The analysis indicates that government can play a significant role in the process. However, this role does not involve extracting surplus, savings, labor, etc. from the traditional sector to be used for the expansion of the modern sector. Instead, the implication is that a successful development strategy would be one which emphasized significant investment in the development of a dynamic traditional sector. Since much of this sector is made up of household firms engaged in agricultural production, this approach would most certainly be a rural based strategy of development. This would involve investing in the creation of institutional structures which would dramatically reduce transaction costs as well as the use of spending and taxing schemes as well as legislative action to bring about more productive allocations of resources. All of these efforts would involve building upon the institutional and organizational structure which already exists, not the substitution of imported institutions and structures. Thus government efforts would be aimed at constructing an institutional structure which reduces transactions costs and enhances overall productivity.

That this sort of strategy, a traditional (rural based) strategy of development,

can be successfully applied is supported by the experience of Japanese development prior to World War II. With the Meiji restoration the government set itself on a path to rapidly develop agricultural productivity.¹ Initially, the Meiji government sought to develop agricultural production through the importation of foreign institutions and experts. This involved the utilization of agricultural experts from England and the importation of agricultural equipment from the United States and England. The attempt was quickly found to be a failure given the dramatically different conditions which existed in Japanese agriculture. The government re-directed its strategy to develop an indigenous approach. The new strategy involved identifying the best seeds and cultural practices utilized by farmers and then screening and improving them for use nationwide. The government emphasized traditional crops and employed veteran farmers as instructors in agricultural colleges and extension systems. The agricultural extension and experiment stations were set up to screen and tailor veteran farmers techniques by means of relatively simple comparative tests. In addition, these stations and systems were decentralized throughout the nation and in fact laws were posed to subsidize and promote such a decentralized system.

This provided the basis for the rapid productivity growth which occurred during the early part of the Meiji period. It must be remembered that during the three hundred years of the Tokugawa period preceding the Meiji restoration, farmers were subject to the strong constraints of feudalism. Farmers were bound to their land and not generally allowed to leave their village. They also were not free to choose what crops to plant or what types of seed to use. Under these conditions there were significant transactions costs involved in the development of markets and the necessary supporting institutions. Thus the Japanese traditional sector was a series of isolated islands using a variety of production techniques producing a variety of outputs. These islands were only loosely connected to each other and to the modern sector.

A variety of reforms were aimed at dramatically reducing the transactions costs involved in establishing the organizational structure for rapid growth. Under feudalism the feudal lords owned all of their domains agricultural land and collected in-kind taxes on it. During this time a kind of sub-ruling-class land ownership evolved in which some wealthy peasants gained holdership of land by foreclosing on defaulted loans to poorer peasants or by creating new fields out of waste land. They would often rent this land out to the poorer tenant. However, this could be done only with the consent of the lord. The Meiji government abolished the feudal control of the land and recognized the peasant holder as rightful owner, giving him the authority to sell the land. In addition, land taxation under feudal rule was in-kind and often capriciously and inefficiently assessed and collected. The government during the Meiji restoration took a survey of the available productive land and transformed the in-kind tax to a fixed rate cash tax.

¹ Much of the discussion of Japanese agriculture is drawn from Yujiro Hayami, *Japanese Agriculture under Siege: The Political Economy of Agricultural Policies* (New York: St. Martin's Press, 1988).

Because it was a cash tax, landowning farmers were compelled to market some of their crop. The burden of the tax generally decreased over time as the agricultural economy grew and the tax rate itself was reduced. All of these actions tended to reduce the transaction costs of creating markets in labor, land, and output.²

In order to facilitate land-improvement projects the Meiji government enacted the Arable Land Replotment Law in 1899. By law participation in land-improvement projects (irrigation-drainage) was made compulsory upon the consent of more than two-thirds of the landowners owning more than two-thirds of the arable land area of the district concerned. In addition, a legal-person status was given to the associations formed to engage in improvement projects so that they could receive credit. The government also established the Japan Hypothec Bank in 1897 which aimed to advance long-term credit for such projects. As a supplement to the hypothec bank, the Banks of Agriculture and Industry were established, one for each prefecture. Later on the government also advanced low-interest credit from funds mobilized from the postal savings banks for land-improvement projects. Through these activities the Japanese government provided the foundations of a capital market which would make credit available in rural areas.

All of these efforts resulted in a rapid increase in agricultural output and productivity. It also resulted in an improvement in the standard of living of almost all farm families. This type of agricultural expansion also had a significant impact on the character of the Japanese manufacturing sector. Specifically, much of this increased income was spent on traditional, culture goods. Thus small-scale manufacturing and workshops grew rapidly so that even as late as 1952 the share of national income generated by modern-sector industries has been estimated to have been only about 60 per cent [14, p. 81]. It is also thought that the number of indigenous occupations, sectors of the Japanese economy which were of native origin, grew dramatically from the 1870s to the 1930s [17]. Most of this production took place in small workshops and factories which relied, to a great extent, on family labor and used labor-intensive techniques of production.

The expansion of small-scale traditional manufacturing was a direct result of the expansion of traditional agricultural production. The expanded incomes in the rural sector are spent on commodities traditionally consumed by the firm household. One might wonder why large modern manufacturing firms did not set up local branches to compete with local producers. They eventually began to, but only after an extended period of time. This was due to the fact that the larger firms lacked knowledge of the local markets and there was a high cost to training local labor. The key here would seem to be that the small workshops and factories were part and parcel of the traditional sector, governed by its institutions, values, and mores. Thus employment and operation practices reflected local conditions and accepted ways of doing things. Laborers were often family members or members of the local village who are tied both to each other and to the local owners through a web of cultural and social relationships.

² Much of this is drawn from Richard J. Smethurst, *Agricultural Growth and Tenancy Disputes in Japan, 1870-1940* (Princeton, N.J.: Princeton University Press, 1986).

Also these small workshops and factories that produced differentiated commodities had few or no scale economies. These types of goods, many times, required significant amounts of hand work. Because of these characteristics, large firms residing in the modern sector could not effectively compete in the production of these types of goods. Again, it should be emphasized that it was the consistency of the products and techniques with the existing culture which partly accounts for the fact that small, family firms were so successful in producing them.

Even as large firms began to evolve and play a significant role in Japanese industry, many of their practices remained consistent with and reflected the fundamental values and ideology of the traditional sector. Abegglen in a study of large Japanese factories [1] found that the organization of these factories seemed to be consistent with and a logical outgrowth of the kinds of relations and values that existed in the traditional sector in Japan. This was and is reflected in the lifetime employment practices, the system of pay or reward based primarily on length of service, and the extent of the penetration of the company into the nonbusiness activities of its workers. Specifically, Abegglen found that parallels to an essentially feudal system of organization may be seen—not, to be sure, a replication of the feudal loyalties, commitments, rewards, and methods of leadership but a rephrasing of them in the setting of modern industry [1, p. 127]. Summing up, he argues:

From the observations of this study it would appear that, although the technology of modern industry was introduced into Japan, the factory organization at the same time developed consistent with the historical customs and attitudes of the Japanese and with the social system as it existed prior to the introduction of modern industry [1, p. 131].

IV. PRODUCTIVITY ENHANCEMENT AND REDISTRIBUTION: JAPAN AND AFRICA

One must, however, admit that just as one can speak of market failure and its limiting effects on economic development, one must also allow for non-market failure and its negative impact. Specifically, the lack of development of markets and their supporting institutions certainly provides a role for government to play in the creation of a dynamic traditional sector. However government attempts to do this may themselves be subject to failures. That is, the organizations created by governments to deal with market failures are not likely to be representative of society in general. Instead, their decisions are likely to represent the interests of powerful minorities and/or the selfish interests of the individuals and organizations which hold government power. Bates [4] has argued that it makes more sense to view government policies as choices made in response to political pressures exerted by organized interests. This is particularly important, he argues, in understanding the development of African food policies. Food policy there appears to represent a form of political settlement, one whose goal is to pacify the urban constituents of African governments. The costs of such policies tend to be borne by the mass of the unorganized, small-scale farmers.

Urban consumers represent a minority of the population in most African states, but they possess an extraordinary amount of influence and power. This is most likely due to the fact that they are strategically concentrated and located. Thus they can be quickly mobilized and they control transport, communications, and other public services. One could also argue, using Mancur Olson's [15] analytical framework, that coalitions aimed at redistribution are far more likely to succeed among small, relatively wealthy groups rather than large poor ones. This is mainly due to the ability of the former to deal with the problem of free riders. The former would seem to represent a good characterization of the urban elite, while the latter characterizes the mass of small farmers in the rural areas of Africa.

Given the disproportionate amount of power held by the urban elite, it is not surprising that African governments would respond to this power by creating policies which benefit this group at the expense of the rest of society. In most of these countries food still makes up the bulk of the expenditures made by urban dwellers. Thus it is in their interest to keep food costs low in order to keep the cost of living low. Urban capitalists are likely to also be interested in a cheap food policy in order to protect their profits by keeping labor costs down.

As a result, many of the policies followed by African governments have been predatory in nature with respect to their agricultural sectors. They have through a variety of mechanisms sought to turn the terms of trade against the agricultural sector in a number of ways. Through marketing boards and the like these governments have depressed the prices received by farmers for their crops and, as a result, have provided the cities with cheap food and themselves with revenue. In addition, in order to promote industrial development these governments have sought to protect their manufacturers from external competition. This has tended to raise the relative prices of manufactured commodities purchased by farmers. Although some farm inputs have been provided on a subsidized basis, generally the bulk of this kind of aid has gone to larger farmers at the expense of small-scale farmers. The end result of this sort of policy regime is a transfer of revenue from agriculture to the urban areas. At the same time, since markets and their supporting institutions are often distorted, repressed, or eliminated, the development of the traditional sector is blocked. Specifically, these types of policies increase the transaction costs involved with exchange and developing the institutions in support of exchange. As a result, the islands of economic activity in the traditional sector are further isolated and its relationship to the modern sector made even more tenuous.

The example provided by Japan discussed in the previous section indicates how investment in the traditional sector can yield rapid productivity increases and the evolution of a modern industrial sector based on traditional institutions. In this context, a government has acted to promote organizations, institutions, and groups which enhance overall productivity. Alternatively, the examples drawn from this section indicate that governments often act in a predatory manner with respect to the traditional sector. Thus they promote and support organizations, institutions, and groups whose main aim is the redistribution of income or wealth and which tend to retard productivity and overall development.

What accounts for this difference in behavior? Most of the previous discussion

of this issue has been hampered by the notion that most governments are dominated by coalitions of groups which seek to gain through efforts to redistribute. However, as the Japanese case illustrates that governments can and have acted to promote productivity. How is this difference to be explained? This, of course, is a highly complex and little understood area and no attempts to provide any final answers will be made in this paper. Instead, only tentative suggestions will be put forward.

It would seem that one of the key differences between the Japanese and African cases has to be in terms of their previous historical development. The argument is not that Japanese historical evolution led to the development of a government in which concern for the society at large (productivity enhancement) outweighed concern for the goals of powerful interest groups or the interests of the group in power. Evidence indicates that in Japan the interests of urban groups and the concern with manufacturing were dominant. Some scholars believe that this led to under-investment in the traditional agricultural sector (see [2, pp. 8-9]), although much less so than what is found in many of today's currently less developed nations. The main interest of the Japanese elite was the rapid development of industry. However, instead of following extractive, predatory policies with respect to the traditional sector, productivity enhancement was promoted.

One of the important factors accounting for the differences discussed above would seem to be related to the previous technological development during the Tokugawa period in Japan. This was a period, as discussed earlier, when Japan was dominated by feudal institutions. However, new seeds and more productive techniques were continuously developed. They were not diffused throughout the traditional sector due to the limited development of markets and their supporting institutions. Thus a significant technological backlog existed which could be tapped once an effective institutional structure was created. In addition, significant investments in land infrastructure were also made during this time period, in particular in the construction of irrigation systems. Thus at the time of the Meiji restoration the relative cost of promoting productivity increases was low. In other words, resources could be diverted from the promotion of the modern sector with the expectation that returns from such investments could be rapidly reaped. Japanese rulers were also interested in cheap food for urban consumers. However, the relatively cheapest way to achieve that was through the enhancement of productivity in the traditional sector. This could be achieved relatively quickly given the backlog of technology.

Examining the African situation it would appear that conditions were quite different. Agriculture in much of Africa was land extensive rather than land intensive. Thus little investment in land infrastructure, other than for the production of export crops, had been undertaken. In addition, little new technology in terms of new seeds and cultivation techniques had been developed, except again for export crops. Thus a technological backlog that could be easily applied was not readily available. From a global perspective there was and is certainly a reservoir of technologies which could dramatically increase productivity in the traditional sector. However, in agriculture the usefulness of a new technology is very much determined by location. In other words, new seeds and technique that

are highly productive in one location may not, due to differences in soil, rainfall, etc., be useful in others. Thus an organizational structure and a certain amount of social infrastructure (irrigation, flood control, etc.) must be in place if techniques are to be successfully adapted from one location to another. This is not to deny that investments in infrastructure and new technology would yield very high rates of return. The main implication is that the generation of such productivity increases will most likely require a net inflow of resources into the traditional sector and away from the modern sector.

The research necessary to create the new technology, discussed in the previous paragraph, has one additional characteristic that must be noted. It will generate returns, new techniques, only after an extended period of time. Political leaders, however, generally have a limited time horizon for making decisions. Given this constraint, these political leaders, in order to maintain their positions of power, are very likely to engage in predatory policies with respect to the traditional sector. That is, they are likely to engage in policies which turn the terms of trade against the agricultural sector and extract significant amounts of resources from this sector in a short period of time. The alternative, enhancing the productivity of the traditional sector would be very costly politically, require an outflow of resources from the modern to the traditional sector, and result in significant productivity increases only after a lengthy period of time. Thus this last alternative is likely to be rejected.

The conditions in Africa were also different from another perspective. The main primary export crop of Japan was silk. Silkworm cultivation was often coupled with other agricultural activities. It was a highly labor-intensive process which did not require buildings and machinery. Mulberry trees were planted around the houses and cocoons were produced in large volume. Thus this was an export activity, which could be taken up by peasant farmers, which complemented normal agricultural activities [7, p. 163]. Thus export expansion involved the entire traditional sector, not just an export enclave. The result was that conditions were created which reduced the relative transaction costs of market creation and thus spurred the dynamic evolution of the traditional sector. Also, as the income and wealth position of peasant farmers rose, it increased the political influence of this group over government policy making. This worked to ensure that government policy would be directed towards enhancing productivity.

In many African nations, the situation was quite different. Export crop production often required operation at a large scale and the utilization of significant amounts of capital. More importantly, the traditional sector was often split into a group of large farmers who became increasingly commercialized and thus were drawn into the modern sector. As their power grew, they were often able to ally themselves with the urban elite and thus receive their inputs at rates subsidized by the government. This generally more than offset the loss resulting from government policies aimed at turning the terms of trade against the agricultural sector.

Finally, to account for the differences in policy followed by Japan and many of the African nations one must remember that Japan was an entity united under

the Tokugawa Shogunate for several hundred years. Of course, one could not argue that Japan was a nation state, but the groundwork for the establishment of such had been laid. Thus when threatened with colonization the Meiji restoration movement was able to quickly move to the establishment of a nation state. In addition, the threat of colonization exerted significant pressure on the government to pursue strategies which enhanced productivity in the traditional sector. The Japanese realized that in order to survive, modernization within the framework of the traditional economy had to occur.

In the African case, the situation was much different. These countries were colonized and when independence came, states were constructed with no reference to the tribal and cultural make-up of the people included within particular states. Thus neither nation states nor the foundations of nation states existed. Thus much of the resources in these countries have had to be diverted to investments in legitimacy. In other words, ideological links between different groups had to be forged. Thus many of the problems of the African states are most certainly tied to the immense difficulties and costs involved in constructing a nation state.

V. SUMMARY AND POLICY IMPLICATIONS

In this article it has been argued that dualistic models of development view the process of development as one in which the modern industrial sector displaces the traditional sector. This improves overall productivity because resources are generally thought to be misallocated in the traditional sector, decision making is not oriented to profit maximization. Also technology in this sector is viewed as being stagnant. However, development by displacement generates significant costs. Specifically, the displacement of traditional institutions and organizations by imported substitutes may lead to individuals ignoring the imported rules and norms especially if the latter are not viewed as legitimate by the majority of people in the traditional sector. Thus the costs of carrying out economic activity will dramatically increase and the net gains from growth are dramatically reduced.

An alternative view of dualism is developed. Specifically, firm households in the traditional sector are assumed to maximize subject to a variety of constraints. The environment in which they make their choices is different from that found in the modern sector. In the traditional sector markets and their supporting institutions often do not exist or exist only to a limited extent. Thus this sector is best viewed as a series of islands of economic activity which are often not linked to each other, let alone to the modern sector. Alternatively, the modern sector is organizationally well developed and connected to world markets. In this context development is then viewed as a process of creating the institutional structure necessary to support the development of markets within the traditional sector. This can best be achieved by building on the institutional structure which already exists and investing heavily in the expansion of this structure. In most cases this will imply a net inflow of resources into the traditional sector.

Japan is used to illustrate a situation in which economic development occurred as a result of the dynamic evolution of the traditional sector. In other words, the

Japanese government invested in the traditional sector because of the limited development or nonexistence of the organizations necessary to support market development. Of course, non-market failure can also occur. That is, attempts by the government to deal with market failure may result in bureaucratic failures which are often more costly than the original market failure. The experiences of the African nation states are used as examples. A preliminary explanation of these differences in policies was developed. It was argued that a readily applicable technological backlog existed for the Japanese, but not for the African states. As a result, the policies aimed at productivity enhancement were more attractive to Japanese authorities than possible predatory policies. Alternatively, in much of Africa this lack of a readily applicable backlog reduced the relative appeal of a productivity enhancement policy relative to other predatory sorts of policies. Differences in types of export crops produced also influenced the types of policies utilized. In Japan the main export crop was widely cultivated by small, peasant household firms. Thus export expansion enhanced the power of peasant farmers who would be interested in productivity enhancing sorts of policies. Alternatively, the development of export enclaves in Africa often hindered the development of coalitions whose aim was productivity enhancement. Finally, the relatively limited development of the nation state prior to independence in Africa has required these countries to devote much of their resources into investments in political legitimacy.

The perspective outlined in this paper has several implications for policy. For the less developed nations, policies must be reoriented so as to direct a net inflow of resources into the traditional sector. However, these investments would generally not be directed to supporting particular enterprises. Instead, they would be invested into the creation of the institutional and organizational structures necessary for the development of markets. Specifically, where credit markets do not exist, the government must seek to develop institutional structures to provide this credit, much like the Japanese government did. In addition, a system for agricultural research must be created and funded and an extension system must diffuse the new knowledge. This is likely to succeed if use is made of the expertise which already exists in the traditional sector and to work through the already existing institutions. Investments must also be made in rural infrastructure (irrigation, drainage, etc.). Organizations responsible for the supervision and maintenance of this infrastructure must also exist. Again, existing tribal or village institutional structures should be utilized.

In terms of policy for external donors, one of the main implications is related to investment in new technology. In the past, a variety of international centers for agricultural research have been created. They have been devoted to research topics of concern to particular regions. This set of organizations needs to be dramatically expanded so as to cover a wide variety of crops and regions. The goal here is to create a backing of new innovations which can be applied with only limited adaptations to the agricultural sectors of today's less developed nations. This would increase the relative net gains that political elite could expect to reap by following productivity enhancement policies with respect to the traditional

sector. Investments aimed at creating an indigenous set of research and extension institutions within the less developed nations would also be important.

Finally, it must be emphasized that detailed specific policies for a particular developing country cannot be provided by outside experts. As Bruton has pointed out, development is the process by which indigenous institutions evolve so as to adapt to the application of science to economic activity [5, p. 1112].

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