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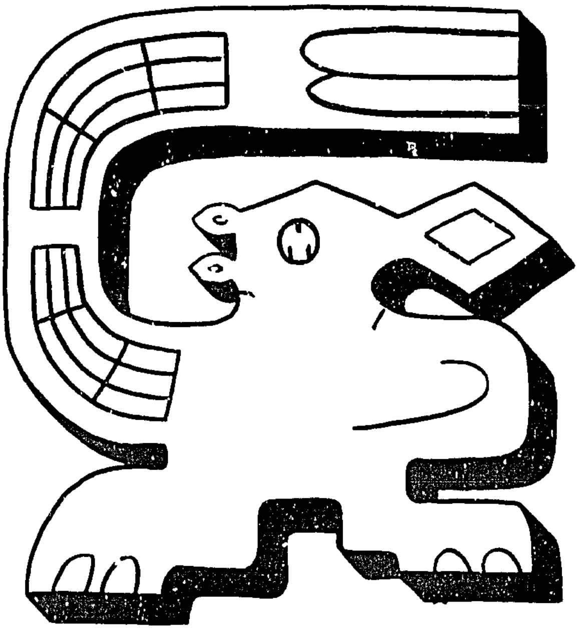

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COMPARATIVE MARKET STRUCTURES IN DEVELOPING COUNTRIES*

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Market structures in developing countries are of interest for a number of reasons. Apart from the possibility that market structure may have an important impact on the rate of economic growth—a possibility that will not be explored here—market structure is of interest because it clearly affects the distribution of income, a subject that is increasingly of interest among those working on the problems of developing countries. It is also of interest because economic theory has its widest applications when perfect competition can be assumed. In fact, in absence of evidence to the contrary, something close to perfect competition is nearly always assumed by planners in developing countries.

The literature on market structures in developing countries—which are here defined to exclude Communist-bloc countries—is relatively thin, unusually widely scattered, and so far has resulted in few insights as to the impact of market structure on the pace and character of economic development.

The purpose of this paper is to review some of the more important contributions to this embryonic literature, to present theoretical arguments concerning the type of market structures we should expect during early phases of economic development; and to report some relevant empirical evidence for the agricultural sector in some of the countries of Africa and Latin America—the developing areas best known to the author.

THE LITERATURE

There is little agreement in the literature on the nature of market structures in developing countries. At one pole many studies suggest atomistic competition, or something close to it, as typical of entire sectors of

* This is part of a larger study of monopoly power in developing countries that the author has under way for the International Development Research Center, Indiana University. Much of the data reported here were collected during trips to Africa (1965) and Latin America (1969) under grants from the Social Science Research Council and the Midwest Universities Consortium for International Activities, respectively. Opinions expressed are, of course, solely the author's.

developing economies generally. For example, the view that the agricultural sector of developing countries is typically extremely competitive is advanced by Edward S. Mason when, in contrasting concentration of economic power in the United States and Britain with less developed countries such as India and Pakistan, he says "in India and Pakistan . . . where half to two-thirds of the national income comes from, and three-quarters to four-fifths of the labor force is employed in, agriculture, general concentration is low. But we may be sure that, as these countries industrialize, general concentration will increase."[1] Ben Higgins goes even further in saying that "nothing approaches the purely competitive ideal more closely than peasant agriculture" in developing countries, and he takes the view that in Indonesia and the Philippines, at least, it has been "the monopolized industrial sector that expanded, not the competitive rural sector."[2] Visions of a competitive rural sector are also conjured up when Kelly Harrison says "atomistic competition is present in most aspects of commodity production and marketing in developing nations."[3]

Other contributors near the competitive pole cover a narrower geographic scope but similarly maintain that something close to atomistic competition is characteristic of major sectors, commodities, or markets in Latin America, generally, the Philippines, India, Java, Thailand, Vietnam, Uganda, Nigeria, Ghana, Sierra Leone, Guatemala, Haiti, and Jamaica. Extreme competition is reported for the agricultural sector of Latin America generally by Mintz;[4] for rice and maize, both dietary staples, in the Philippines by Ruttan;[5] for rice in Thailand and Vietnam

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[1]Edward S. Mason, *Economic Concentration and the Monopoly Program* (Cambridge, Mass., 1959), p. 39.

[2]Benjamin Higgins, "Discussion of Arnold C Harberger, 'Using the Resources at Hand More Effectively,' " *American Economic Review*, vol. XLIX, No. 2 (May, 1959), p. 170.

[3]Kelly Harrison, "Market Coordination in Economic Development," Ag Econ. Misc. 1967-2 (mimeo., Department of Agricultural Economics, Michigan State University, 1967), p. 2.

[4]Sidney W. Mintz, "Peasant Market Places and Economic Development in Latin America," in Reed Moyer and Stanley C Hollander (eds.), *Markets and Marketing in Developing Economies* (Homewood, Ill., 1968), p. 179

[5]Vernon W. Ruttan, "Agricultural Product and Factor Markets in Southeast Asia," in Kurt R. Anschel, et al. (eds.), *Agricultural Cooperatives in Developing Countries* (New York, 1969), p. 90.

by Usher and Shepherd;[6] for basic cereals in India by Lele and Mellor;[7] for agricultural commodities generally in one area of Java by Dewey;[8] for all major dietary staples in Uganda, western Nigeria, and Sierra Leone by Martin, Thodey, and Mutti, et al.;[9] for agricultural commodities generally in Nigeria, Ghana, Jamaica, and one area of Guatemala by Anschel, La Anyane, Bauer, Katzin, and Tax.[10]

Peter Bauer's *West African Trade*,[11] based mainly on Nigeria and Ghana, and Sol Tax's *Penny Capitalism*,[12] based on a single Guatemalan village, are the best known of studies depicting traditional economic systems as ones in which economic conditions are such that something close to atomistic competition prevails, and both of these studies seem clearly to have had an influence on those contributing to this segment of market structure literature.

At the other pole are numerous studies characterizing all developing economies as ones in which imperfect competition prevails. Among those taking this position are Solomon, Mueller, Mason, Myint, Raup, and Myrdal. Morton R. Solomon argued in 1948 that except in manufacturing

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[6] Dan Usher, "The Thai Rice Trade," in T. H. Silcock (ed.), *Thailand, Social and Economic Studies in Development* (Durham, North Carolina, 1967), pp. 222-223; and Geoffrey Shepherd, cited in Ruttan, *op. cit.*, p 90.

[7] Uma J. Lele, "Market Integration: A Study of Sorghum Prices in Western India," *Journal of Farm Economics*, vol XLIV, No. 1, Part 1 (Feb., 1967), pp. 147-159; and John W. Mellor, "Agricultural Product and Input Markets in South Asian Smallholder Agriculture," in Kurt R Anschel, et al (eds), *Agricultural Cooperatives in Developing Countries* (New York, 1969), p 112.

[8] Alice G. Dewey, *Peasant Marketing in Java* (New York, 1962), pp. 82-85.

[9] Anne Martin, *The Marketing of Minor Crops in Uganda* (London Great Britain, Dept. of Tech. Cooperation, Overseas Research Publication No. 1, 1963), pp. 20 and 23; Alan R. Thodey, *Marketing of Staple Foods in Western Nigeria*, vol. III (Washington, D.C USAID, 1968), pp XI-36, and R J. Mutti, et al., *Marketing Staple Food Crops in Sierra Leone* (Washington, D.C . USAID, 1968), pp 378-379.

[10] Kurt R. Anschel, "Agricultural Marketing in the Former British West Africa," in Kurt R. Anschel, et al. (eds.), *Agricultural Cooperatives in Developing Countries* (New York, 1969), p 152; S La Anyane, "Agriculture in the General Economy," in J. B. Wills (ed.), *Agriculture and Land Use in Ghana* (Oxford, 1962), pp. 194-195; P. T. Bauer, *West African Trade: A Study of Competition, Oligopoly, and Monopoly in a Changing Economy* (Cambridge, England, 1954), p. 391; Margaret Katzin, "The Business of Higglering in Jamaica," *Social and Economic Studies*, vol. IX (Sept., 1960), p. 328; and Sol Tax, *Penny Capitalism* (Chicago, 1953), p. 15.

[11] *Op. cit.*

[12] *Op. cit.*

there are generally more market imperfections in developing than developed countries.[13] Probably the most carefully done article on the subject is one by Willard F. Mueller about a decade later in which he argued that the conditions of developing economies result in so much buyer attachment and other types of product differentiation that anything more competitive than monopolistic competition is unlikely. He also reviewed several bits of relevant empirical evidence available at that time.[14] Edward Mason, in a recent essay in honor of Chamberlin, has come around to saying market imperfections are characteristic of both the industrial sector and what he calls the "traditional" sector which would appear to overlap the agricultural sector he earlier characterized as competitive in developing countries, but he presents neither arguments nor evidence to support this position.[15] Similar views have been expressed in recent years by Hyla Myint,[16] Philip Raup,[17] and Gunnar Myrdal,[18] none of whom attempt to buttress their assertions with evidence.

Others make the same assessment for major sectors of developing economies, generally, for Latin America as a whole, or for major commodity groups in particular countries (or groups of countries) - for Chile, Peru, Brazil, West Africa, Kenya, Tanzania, Uganda, India, Malaya, and the Philippines.[19]

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[13]Morton R. Solomon, "The Structure of the Market in Underdeveloped Countries," *Quarterly Journal of Economics*, vol. 62 (August, 1948)

[14]Willard F. Mueller, "Some Market Structure Considerations in Economic Development," *Journal of Farm Economics*, vol XLI, No 2 (May, 1959)

[15]Edward S Mason, "Monopolistic Competition and the Growth Process in Less Developed Countries Chamberlin and the Schumpeterian Dimension," in Robert E Kuenne (ed.), *Monopolistic Competition Theory: Studies in Impact* (New York, 1967), p 79.

[16]Hyla Myint, "An Interpretation of Economic Backwardness," *Oxford Economic Papers*, vol. VI, No. 2 (June, 1954)

[17]Philip M. Raup, "Land Reform and Agricultural Development," in Herman M. Southworth and Bruce F. Johnson (eds), *Agricultural Development and Economic Growth* (Ithaca, New York, 1967), p. 282.

[18]Gunnar Myrdal, *Asian Drama: An Inquiry into the Poverty of Nations* (New York, 1968), p 1887.

[19]See Thomas Balogh, "Economic Policy and the Price System," *Economic Bulletin for Latin America*, vol. VI, No. 1 (United Nations, March, 1961), p. 44, J C Abbott, et al., *Marketing: Its Role in Increasing Productivity*, FAO Freedom from Hunger Campaign, Basic Study No. 4 (Rome, 1962), p 63. Alfred P Thorne, "Monopoly–Oligopoly–Economic Development," *Cartel*, vol 10, No. 2 (April, 1960), pp. 58-62, Peter D. Bennett, "The Role of the Government in the Promotion

The greatest differences in opinion seem to concern the agricultural sector. Some of those who see an abundance of restrictions to competition include the agricultural sector in their generalizations, but none of those who talk of atomistic competition claim it is characteristic of the industrial sector There seems to be a consensus that developing countries everywhere, in their effort to industrialize rapidly, provide enough protection to industrial firms that there is no reason to expect much competition in this sector.

Clearly many of these generalizations about entire countries and larger groupings—even for sectors within these economies—go too far. Market structures may vary greatly within any economy from one commodity to another, or from market to market for the same commodity, as a few—but curiously only a few—of the contributors to this literature note. Where market structures do vary, generalizations ideally should be generated by first identifying structures for all the major commodities and then devising an average in which commodities are given weights that reflect their relative importance in attaining some goal, or group of goals, that have been set for the economy. Data and manpower problems of developing countries, however, are such that it would be unrealistic to expect comprehensive empirical indicators of this sort for some time to come.

Having an abundance of statistics requires much more national affluence than is characteristic of developing countries Budgets are tight and

of Efficiency in the Retail Marketings of Food Products in Greater Santiago, Chile," (unpublished Ph D dissertation, University of Texas, 1965), pp. 82-106, Ricardo Lagos, *La Industria en Chile: Antecedentes Estructurales* (Santiago, 1966), pp 5, 58, and 59, Geoffrey Shepherd and Dale B Furnish, *The Economic and Legal Aspects of Price Controls in Peruvian Agriculture* (Lima, Peru, USAID, 1967), p. 59, Marvin P. Miracle, "Restraints to Entrepreneurship—Brazil and West Africa Compared," paper for the American Association for the Advancement of Science, December meetings, 1967, pp 13-14, and "Market Structure in Commodity Trade and Capital Accumulation in West Africa," in Reed Moyer and Stanley C. Hollander (eds), *Markets and Marketing in Developing Economies* (Homewood, Ill , 1968), pp 214-220, Vance Q. Alvis and Peter E Temu, *Marketing Selected Staple Foodstuffs in Kenya* (West Virginia University, Dept Agri Economics and Office of International Programs, IP-25, 1968), pp 299-300, H C. G. Hawkins, *Wholesale and Retail Trade in Tanganyika* (New York, 1965), pp. 139-140, FAO, *Report to the Government of Uganda on Fish Marketing in Uganda*, FAO Report No. 998, based on the work of J. A. Crutchfield (Rome, 1959), pp 41-54, Joe S Bain, *International Differences in Industrial Structure* (New Haven, Connecticut, 1966), pp. 119-120, 134-155, Clifton R. Wharton, "Marketing, Merchandising and Moneylending. A Note on Middlemen Monopsony in Malaya," *Malayan Economic Review*, vol. VII, No. 2 (October, 1962), pp. 22-44, and Hugh L Cook, "Market Structures and Economic Development in the Philippines," *Journal of Farm Economics*, vol XLI, No. 5 (December, 1959), pp. 500-518.

trained manpower of the sort needed for collecting statistics is painfully scarce, relative to governmental requirements. Inadequacy of the physical infrastructure—poor transportation and communication networks—also contributes to the difficulty of collecting good data. Except for a few manufacturing industries, most developing countries do not collect statistics on the number of sellers of even major commodities, and where such estimates are available, there is usually no trustworthy data on the market shares of sellers that are identified. And, not only is little attempt made to collect information on market shares, but when data of this sort are collected, tax considerations make it tempting for the firms and individuals involved deliberately to misrepresent their economic activities, misrepresentations that can be made with little fear of being caught if for no other reason than because there is rarely enough statistical data to run conclusive checks.

Thus the evidence needed to determine with any precision what market structures are in developing countries is not now available and may not be for years. Can we say anything meaningful about market structures in these countries while we are waiting for empirical evidence to accumulate? The writer would vigorously argue that we can—that if the empirical data were now available (or could be quickly produced by a crash program of research) we would find atomistic competition relatively unimportant—at least for countries in early phases of development—compared with various forms of imperfect competition, and that even in the agricultural sector substantial deviations from the competitive model are common.

The basis for this position is evidence on market conduct—to be discussed presently—and the fact that capital markets in developing countries are so embryonic, or so imperfectly competitive, that they are commonly an enormous barrier to market entry. This is a relationship that has been largely ignored. Economists interested in market structure have been preoccupied with Western economies in which capital has long been relatively abundant and capital markets typically work well. Therefore, as the literature on industrial organization developed, it was correctly argued that capital and capital markets were not an important obstacle to market entry, and therefore capital was not an important variable in explaining patterns of competition in the economies the majority of economists were interested in. The special conditions of developing countries relevant to analysis of their market structures have not been fully reflected in the market structure analysis that has been done to date.[20]

[20] Bauer mentions capital markets as an important variable in his discussion of market structure in the foreign enclave of Nigeria and Ghana but then overlooks it

CAPITAL MARKETS AS A BARRIER TO ENTRY IN TROPICAL AFRICA AND LATIN AMERICA

Given conditions commonly found in early phases of development, imperfections in capital and product markets are mutually reinforcing, leading to a high degree of concentration of economic power in most, or all goods and services requiring significant amounts of capital in production or distribution.

Some of the characteristics of Latin American and tropical African economies differ considerably, but to a large extent these two sets of economies have the following in common. (1) capital is extremely scarce and most people cannot get loans from the financial institutions available; most of the population have a low level of income, little savings, and do not participate in any banking system or other effective institution for consolidating savings,[21] (2) the bulk of the population has no access to

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when he later analyzes other sectors of the same economies (*op. cit.*, and "Concentration in Tropical Trade Some Aspects and Implications of Oligopoly," *Economica*, vol XX [November, 1953])

Mason does list "absence of an effective capital market" along with three other factors leading to restriction of competition in what he calls the "traditional" sector of developing economies, but he provides no discussion on this point ("Monopolistic Competition . . . ," p 93) Solomon in a much earlier article argued that in developing countries the monopoly power of wholesalers, one of five categories of sellers he discusses, can be traced primarily to the scarcity of capital, but he did not discuss availability of capital as an explanatory variable for any of the other categories of sellers listed (*op. cit.*) Thorne says that in Latin America "there is competition in those manufacturing industries that require relatively little capital" but does not explicitly mention capital in discussing other industries (*op. cit.*)

[21] Although there is a banking system, it is not used by the great majority of the population. Banks rarely have branch offices outside a handful of major cities, and those available are commonly used only by a minute fraction of the population because of ignorance and distrust. (See Charles Nesbit, "Interest Rates and Imperfect Competition in the Informal Credit Market of Rural Chile," *Economic Development and Cultural Change*, vol. 16, No. 1 [October 1967], and Miracle, "Market Structure . . ," p. 212.)

Post offices are much more accessible to the bulk of the population than banks, but even so only a very small proportion of the population in most developing countries seem to maintain postal savings accounts.

The most widely reported informal institutions that are potentially a vehicle for consolidating savings are what might be called mutual fund-raising arrangements or rotating credit associations, known as *susu* in parts of Ghana and Trinidad, as *esusu* in western Nigeria, as *chilemba* in Zambia, as *san* in the Dominican Republic, as "throwing a box" in Guyana and as "partners" in Jamaica (See Shirley Ardener, "The Comparative Study of Rotating Credit Associations," *Journal of the Royal Anthropological Institute*, vol. 94 [July, 1964], pp. 201-207; William R. Bascom, international capital markets;[22] (3) for most goods and services there is little effective competition from foreign sellers for a variety of reasons, the most important of which are transportation costs, tariffs, and similar

"The Esusu A Credit Institution of the Yoruba," *Journal of the Royal Anthropological Institute*, vol. 82 [1952], Douglass G. Norvell and James S Wehrly, "A Rotating Credit Association in the Dominican Republic," *Caribbean Studies*, vol. 9, No 1 [April, 1969], pp 45-52, Raymond T Smith, "Ethnic Difference and Peasant Economy in British Guiana," in Raymond Firth and B S. Yamey [eds], *Capital, Saving and Credit in Peasant Societies* [Chicago, 1964], p 315, and Margaret Katzin, "The Jamaican Country Higgler," *Social and Economic Studies*, vol VIII [December, 1959], pp. 436-440) Such institutions vary greatly in detail but have in common the following A group of participants agree that at a regular interval (frequently once a week or once a month) they will each deposit an agreed amount with the head, or perhaps treasurer, of the group Every time a collection is made one of the group gets the sum collected and can use as much of it as he sees fit This procedure is followed each time period until all the members have had a turn to receive what would be called the "pot" in poker parlance.

Members of these fund-raising groups often spend a good deal of time in joint amusement when they meet to make deposits and determine whose turn it is to get the "pot " In some areas a member who gets the "pot" is expected to spend some of it buying food or drink or otherwise entertaining the rest of the group, but at present data on the size of such obligations or how they vary from area to area are not available, and it is impossible to determine how much larger savings are in total, and how much more concentrated they are, than would be the case if such schemes did not exist, but in descriptions of these institutions given to the author by those participating in them heavy stress has always been placed on the difficulty of getting together a group with sufficient mutual trust to risk more than petty amounts Nor do we know much about how common such schemes are They are fairly widely reported among sellers' associations and among civil servants in tropical Africa but are infrequently mentioned in Latin America (See Ardener, *op. cit.*, and Norvell and Wehrly, *op. cit.*)

[22]Private banks will not lend to most of the population because they consider the risk and administrative costs too high. They will often lend to immigrant businessmen–commonly Levantines in both tropical Africa and Latin America–who in turn may lend to the local population, some of whom may reloan funds they get. There appears to be a clear hierarchy of risk, the immigrant businessman usually lives closer to a portion of the population than the bankers and often knows some of the population in the community where he lives much better than bankers, hence can lend with less risk and administrative costs At the same time, there are usually non-immigrant moneylenders in any community who know some or all potential borrowers better than the immigrant businessmen and can lend to some or all of the same clientele with still lower risks

Thus, because any infusion of capital from other money markets must pass through the hands of present holders of monopoly power it is likely to have little effect in reducing existing barriers to entry.

Governmental banks or lending agencies are a potential threat to those who control available capital, but so far attempts to establish such institutions have been largely unsuccessful. Another potential threat is producers of export commodities protection; (4) there are no effective legal curbs to restriction of competition and little or no stigma attached to participating in collusive arrangements;[23] (5) there are no effective consumer organizations to combat monopoly power; and (6) governmental efforts do not result in significant redistribution of income.[24]

In an economy with these conditions where there are neither legal nor social sanctions against collusion it is easy to extend monopoly power by strategic use of supernormal profits. Those who gain monopoly power can force transfer of some of the savings from the rest of the population to themselves and thus get a disproportionate share of available loanable funds, which in turn can be used to extend existing monopoly power in several ways.

The larger the percentage of total savings a given seller—or group of sellers acting in concert—can extract from the bulk of the population via supernormal profits, the greater their monopoly power in the capital market. If individuals or groups holding monopoly power in product markets accumulate enough savings to gain monopoly power in the capital market, they thereby increase the barriers to entry generally in the loanable funds market in which they operate. Their ability to earn supernormal profits

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who conceivably might save enough to offer moneylenders substantial competition. However, a large proportion of export commodities are often controlled by foreign firms or by large domestic producers who commonly have vested interests in keeping barriers to entry in the domestic capital market high. Even agricultural exports produced by small-scale farmers often do not significantly alter the nature of capital markets. A major reason for this in areas of both continents where the author has done field work seems to be the exercise of monopoly power by cash crop buyers—even where a statutory marketing board is involved at some point in the marketing chain—with the effect that existing holders of monopoly power manage to receive a large proportion of income generated by production of cash crops.

[23]Of the more than sixty countries of tropical Africa or Latin America only one—Chile—has any anti-monopoly legislation, and most seem to have never considered adopting it. Belonging to some sort of collusive arrangement is an ambition often voiced by sellers interviewed by the author.

[24]Shortage of trained manpower alone suffices to prevent effective enforcement of a progressive income tax or any other measure which requires detailed information on the economic activity of specific individuals. There is some redistribution of income indirectly through subsidization, for example, through provision of certain free health services, various forms of subsidized transportation or communications, and sometimes subsidized prices of certain consumer goods—at times even some staple foodstuffs. The revenues to finance these subsidies, however, are not necessarily taken from the holders of monopoly power, and in any event the effect of such arrangements may be more than offset by special subsidies and protection—such as tariffs, quotas, and licensing arrangements—provided for some of those holding monopoly power.

on savings accumulated through supernormal profits previously extracted increases the skewness of the distribution of savings and makes it increasingly difficult for those who do not hold monopoly power to challenge those who do.

Holders of monopoly power in product markets will at some point control a large enough share of loanable funds to get some degree of monopoly power in capital markets if only because capital is scarce. By strategic use of their supernormal profits they can increasingly extend their monopoly power in product markets. Eventually they will have enough monopoly power in enough goods and services that the supernormal profits they are able to earn are a sizable fraction of total loanable funds in the capital markets in which they choose to operate.

There are several ways in which supernormal profits can be used in such an economy to extend monopoly power. For example, if the holder of monopoly power is a moneylender—whether one with or without monopoly power in the money market—he may have some influence in forestalling entry directly by carefully choosing only borrowers planning to enter other industries, and indirectly by advancing credit which ties suppliers or customers to his product market operations.

Holders of monopoly power in product markets may also use accumulated capital either to ruin established rivals, particularly those that are financially weaker (through, say, price wars), or to force them into collusive agreements.

Thus the greater the supernormal profits in product markets the greater the concentration of loanable funds in a few hands and the easier it is (1) to make supernormal profits in moneylending and (2) to achieve still greater monopoly power and still greater supernormal profits in product markets.

Absence of effective links with capital markets in other economies prevents checks on monopoly power through infusion of capital generated outside the economy. Likewise there is little possibility of imports serving as a check on local sellers. Savings of any one individual who does not earn supernormal profits are too small to be significant and there are no effective institutions for consolidating savings. Also lacking is countervailing power from consumer organizations.

Under these conditions the only effective threat to a given holder of monopoly power is represented by other holders of monopoly power and starting from a situation of no monopoly power there is reason to expect little economic warfare initially as monopoly power increases.

Those interested in extending their monopoly power will, if they are rational, weigh the probable return for their effort against the cost. On the cost side, extending monopoly power in an industry in which there is as yet little monopoly power involves a much more easily assessed expense and probably one that is usually perceived as smaller than that involved in the other option (attempting to extend monopoly power in an industry in which there is considerable monopoly power). If one attempts to enter an industry where a considerable amount of monopoly power is already established, there is the extra cost of financing what frequently can be expected to be a stiff battle with existing sellers, the length and final outcome of which is likely to be uncertain. Therefore, only if the expected return is higher—and probably considerably higher—than in more competitive industries is it likely that those seeking to establish or extend monopoly power will attempt to challenge those who already hold it. The fewer the industries which are characterized by considerable monopoly power, the higher the probability that there will exist relatively competitive industries where expected returns are high enough that they present prospects more attractive to seekers of monopoly power than the prospects in less competitive industries.

Even when there is a high degree of monopoly power in every industry in which capital is important there is no reason to think that holders of monopoly power will necessarily compete rather than reach an accommodation. If they do compete at all, however, they are not likely to do so until the cumulative process of increasing monopoly power has resulted in a great deal of monopoly power in most goods and services for which capital is an important barrier to entry.[25]

EVIDENCE ON MARKET CONDUCT

Although paucity and unreliability of data in developing countries often make it difficult or impossible to identify commodities and their

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[25] As monopoly power spreads there are at least two reasons to expect that those who have gained it will be increasingly challenged.

First, industries with the greatest expected returns to monopoly power, other things being equal, are likely to be the first to be the targets of attempts to establish such power. Thus after some point in the spread of monopoly power the returns resulting from its use in some industries where such power is established are likely to exceed those in the remaining industries sufficiently to make the extra cost of economic warfare seem justified.

Second, as monopoly power spreads the probability increases that the supernormal profits of any one seller with such power will raise costs or reduce returns of others faced in exchange situations who also hold this power. This will strengthen their incentive to get control of his enterprises or force him into an agreement that would reduce his influence on their own supernormal profits Thus the more extensive monopoly power is, the higher the probability that any increment in such power will in some way provoke others who already hold it.

close substitutes, to define markets geographically, or to measure market shares, the conditions of developing countries are such that it is typically much easier to get information on market conduct than in developed countries. Because there is usually no stigma attached to being involved in collusive actions and no antitrust legislation, it is frequently possible to get much fuller discussion of market conduct than in many of the developed countries. There is mounting evidence on conduct from Latin America and Africa, at least, which suggests that well-organized cartels or similar arrangements are found fairly widely for major commodities in the agricultural sector.

Cartels or extremely collusive groups that determine prices and market shares are reported or suggested for the wholesale cattle trade in western Africa—Nigeria, Ghana, the Ivory Coast, Niger, Upper Volta, Mali, Senegal—and in Latin America, Chile, and parts of Brazil, Colombia, and Mexico.[26] Similar collusive organizations appear to be common in the wholesale trade in starchy-staple foodstuffs at least in western Nigeria, Ghana, Togo, Dahomey, the Ivory Coast, Guinée, Brazil, Chile, Peru, Bolivia, Colombia, Guatemala, and Mexico.[27]

[26]See A. Cohen, "The Social Organization of Credit in a West African Cattle Market," *Africa* (January, 1965), Miracle, "Restraints to Entrepreneurship . . . ," pp 5-13, Samir Amin, *Le Monde des Affaires Senegalais* (Paris, 1969), pp 97-102, Bennett, *op. cit.*, ch. VI, T Cook, "Organization of Trade in One Tropical State, Veracruz, Mexico" (unpublished ms., Department of Agricultural Economics, University of Wisconsin, 1968), and Instituto Latin Americano de Mercadeo Agricola, "Consideraciones Sobre la Ganaderia Porcina y el Mercado de Cerdo en Colombia" (Bogota, 1965) p 8

[27]See Suzanne Comhaire-Sylvain, "Le Travail des Femmes a Lagos, Nigeria," *Zaire* (February, 1951), p 184, Miracle, "Market Structure . . . " Rowena M Lawson, "The Markets for Foods in Ghana," in E H. Whetham and J I Currie, *Readings in the Applied Economics of Africa*, vol I (Cambridge, England, 1967), p. 181, Klein and Saks, *O Problema da Alimentação no Brasil*, Comissão de Desenvolvimento Industrial (Rio de Janeiro, 1954), pp 46-48, (cited in Gordon W Smith, "Agricultural Marketing and Economic Development A Brazilian Case Study," [unpublished Ph D dissertation, Harvard University, 1965], p. 158), M G. Wygant, "A Treatise on Commercial Activities of Women in Togo," U S Dept. of State Airgram A-127 (Dec 8, 1965), p 3, Claude and Claudine Tardits, "Traditional Market Economy in the South Dahomey," in P Bohannan and G Dalton (eds), *Markets in Africa* (Evanston, Ill , 1962), Jacques Binet, "Marches en pays Soussou," *Cahiers d'Études Africaines*, vol. II, 4e cahier (1962), p 110, Bennett, "The Role of the Government . . . ," *op. cit.*, ch VI, Ray Henkel, "The Role of Campesino Markets in the Market Structure of Bolivia," (unpublished ms , Department of Geography, University of Wisconsin, 1966); Ruben E. Reina, *Chinautla, A Guatemalan Indian Community* (New Orleans, 1960), p. 70, Roderick E Burchard, "The Market Women Brokers of Goods and Ideas," (unpublished ms., Latin American Studies Program, Indiana University, 1967), p. 27, J. T. Scott and Leman B. Fletcher,

There is also a good deal of evidence of buyer or seller attachment through credit links, particularly by crop and livestock buyers who commonly give farmers advances on their unharvested crops and thereby gain some control over supplies. The writer has frequently encountered this practice in rural areas of Nigeria, Ghana, the Ivory Coast, Brazil, and Jamaica, and there is mention of it in the literature for Madagascar, Somalia, Senegal, Sierra Leone, Chile, Bolivia, Peru, Colombia, Haiti, Mexico, Guatemala, Sarawak, Malaya, Thailand, and India.[28] Careful search of the literature on rural societies probably would provide ample reports of it in the rest of Latin America, Africa, and Asia as well.

CONCLUSION

There is good reason to think that major departures from the competitive model are found throughout developing economies—even in the agricultural sector, which not infrequently has been described in the literature as highly competitive. If account is taken of the nature of capital markets in these areas, we should expect large departures from the competitive model for all commodities requiring significant amounts of capital in production or distribution. In agriculture this would include all commodities with regional or national markets—certainly all export crops and dietary staples—and, indeed, in Latin America and Africa, at least, there is mounting evidence to suggest that this is in fact widely the case.

"Cooperatives as Instruments of Market Reform: The Economist's View," in Kurt R. Anschel, et al. (eds.), *Agricultural Cooperatives and Markets in Developing Countries* (New York, 1969), p. 219; Sutti Ortiz, "Rural Market Organization: An Exploratory Model," *Man*, n.s., 2, (1967), p. 411; and Enrique Valencia, *La Merced: Estudio ecologico y social de una de la ciudad de Mexico*, Instituto Nacional de Antropologia y Historia (Mexico City, 1965), p. 211.

[28] See Vernon R. Dorjahn, "African Traders in Central Sierra Leone," in P. Bohannan and G. Dalton (eds.), *Markets in Africa* (Evanston, Illinois, 1962), p. 72; René Dumont, *False Start in Africa* (New York, 1966), p. 133; Mark Karp, *The Economics of Trusteeship in Somalia* (Boston, 1960), p. 84; Nesbit, *op. cit.*, p. 84; Henkel, *op. cit.*; Scott and Fletcher, *op. cit.*, p. 216; Emil B. Haney, "The Minifundia Dilemma: A Colombian Case Study," LTC No. 56 (Land Tenure Center, University of Wisconsin, 1968), p. 14; Howell W. Willingham, "Marketing of Staple Foods, Port-au-Prince, Haiti," (unpublished M.A. thesis, University of Florida, 1967), p. 44; T. Cook, *op. cit.*; Manning Nash, "Capital, Saving and Credit in a Guatemalan and a Mexican Indian Peasant Society," in Raymond Firth and B. S. Yamey (eds.), *Capital, Saving and Credit in Peasant Societies* (Chicago, 1964), p. 293; Barbara Ward, "Cash or Credit Crops? . . . ," *Economic Development and Cultural Change*, vol. VIII (January, 1960), pp. 151-152; Burt Schorr, "U.S. Backs a Firm's Attempt to Help Thai Corn Growers But Merchants Foil Project," *Wall Street Journal* (April 4, 1969), p. 1; A. G. Chandavarkar, "The Premium for Risk as a Determinant of Interest Rates in Underdeveloped Rural Areas: Comment," *The Quarterly Journal of Economics*, vol. LXXIX, No. 2 (May, 1965), p. 323; and Wharton, *op. cit.*, pp. 34-35.

Recognition of the capital market as an important variable for market structure analysis in developing countries also has implications for intercommodity and intermarket variations in market structure. Since many goods and services in developing countries commonly require much capital in production, but others require very little, and since sometimes much more capital is involved in making a given good or service available in one market rather than another, we should expect *a priori* large differences in the degree of monopoly power industry by industry and possibly market by market. Every developing country is likely to have some communities where production and distribution processes are still simple enough that for many goods and services little capital is required, or in which labor can readily be substituted for capital. But, at the same time, except for truly self-sufficient communities (which the writer would argue have become rare in Africa and Latin America), there will also be commodities requiring enough capital in distribution, if not production, that considerable departures from atomistic competition can be expected.

To put it another way, considering capital alone, there is no reason to expect a producer selling locally a staple food crop that is easily grown by labor-intensive methods to hold monopoly power, but, considering only capital requirements, it is almost certain that a seller of a relatively expensive manufactured good (or sellers of foodstuffs not grown locally) will hold monopoly power Likewise capital may result in large intermarket differences in monopoly power. Even for commodities that are competitively sold by producers there may be enough capital involved in transportation or storage that competition is severely restricted at the wholesale or retail level.