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THE ROLE OF FINANCE IN
RURAL DEVELOPMENT

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This paper analyzes the role of finance in growth and development. In section II the complementarity between the proper functioning of real and financial markets is discussed. In section III, optimal intervention analysis is used to explain government intervention at every level of economic activity and the multiply distorted environment within which financial reforms are considered. In section IV subsidized credit programs as instruments to promote efficiency, redistribute income, and/or foster viable financial institutions are rejected. In conclusion, it is argued that external funds could be used productively to mobilize rural savings, promote development of financial markets, and reduce internal resistance to general market reforms.

This paper explores the role of finance and financial deepening in promoting rural development in less developed countries.¹ To assess the contribution that can be made by channeling funds into rural financial markets it is necessary to understand the rural setting. Edward Shaw articulated that need when he wrote: "The strategy of liberalization including financial deepening can perform no miracles in cleaning up the debris of distortions in markets for money and capital, for example, or labor and foreign exchange. What it can do is difficult even to measure and describe precisely, given the context of disarray in which it is applied. Nonetheless, the signals that it gives do invoke changes in market structure and market behavior that make steady, optimal growth a more relevant dream for the lagging economies." (Shaw, p. 47) In the following section, I will argue that in the presence of fiscal and financial mismanagement found in developing economies, rural financial programs

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may result in any of a number of outcomes. My concern is similar to that expressed by Ronald McKinnon regarding foreign loans and/or aid to LDCs when he wrote: "Experience suggests ... that foreign funds may be managed no more rationally than funds of domestic origin. When they are loaned, the rates of interest often bear no relationship to the scarcity prices of capital. The enclave syndrome ... can easily be aggravated. Returns actually repatriated by foreigners may be at great variance with their correctly measured economic contribution. Governments become accustomed to foreign aid for their own fiscal support on current and capital account and feel less need for "organized" financial processes for allocating capital on a decentralized basis at much higher rates of interest." (McKinnon, p. 171)

One difficult problem in formulating policy recommendations in developing countries is to understand how existing policies evolved and how they constrain the possibilities for reform. In explaining the reasons for financial repression Shaw wrote: "Perhaps somewhere financial repression exists because it gives civil servants something to do or because it can provide monopoly profits to an ingroup of bankers or borrowers at banks. Perhaps lagging economies do it simply in emulation of more mature economies or even international agencies. The first reason discussed below is the historic antipathy to usury. Second, effective control has not been established over rates of growth in nominal money and rates of change in the price level. Third various models of aggregate economic behavior, which are applied in development policy, minimize or misinterpret the role of finance. Finally, the empirical judgement is made that the potentially beneficial results of real financial growth are

not worth the costs involved and that alternative solutions of capital scarcity are superior." (Shaw, p. 92)

My approach will be to begin with a brief review of the role of financial intermediation with particular emphasis on its potential contribution to rural development. I will presume that real markets are perfectly competitive and unconstrained in order to highlight the complementarity between financial liberalization and the competitive efficiency of real markets. Within the context of a competitive market environment I will briefly outline the contribution that finance can make to economic development. I will emphasize the role of financial intermediaries in promoting efficient resource use, in providing risk management services to both savers and investors, in reducing the concentration of both income and wealth, and, in making financial markets less susceptible to political control.

Next I will turn to a discussion of real and financial market distortions found in many developing countries including tariff and non-tariff trade restrictions, production taxes and subsidies, capital and labor taxes and subsidies, and controls over financial institutions. While there are numerous cultural, historical, economic and/or political explanations for the existence of such policies, their economic justification is summarized most succinctly in studies of "optimal" intervention analysis of which, Bhagwati (1968), Johnson (1966), Lapan (1976) and Magee (1973) are representative. Within the context of a simple two country, two commodity, two factor model I will provide economic arguments for production taxes and subsidies to deal with production externalities,

tariffs to deal with deteriorating terms of trade and capital and labor taxes and subsidies to deal with financial market fragmentation.

The next critical step will be to indicate the deficiencies of optimal intervention analysis when there are many goods and many factors, intervention is not costless, taxing power is limited and information is costly and imperfect. What will emerge will be a real and financial environment with many distortions that is a representative version of the economic realities faced by many developing countries.

Once we have developed the structure of our representative developing country environment we will be able to ask what role finance can play in promoting growth and development in the world as it is. My fundamental premise is that financial and fiscal liberalization should be coordinated but almost never are. In part, the discussion of optimal intervention analysis will clarify the extent to which fiscal and financial market liberalization are incompatible with central planning and why reforms that do occur are often piecemeal. Shaw wrote that: "The quantum gain in stability must come from concurrent liberalization of financial, fiscal and international policy on the part of the lagging economy. Cycles of excess demand, generated in the market for capital and spending to all other markets, cannot be smoothed without financial deepening, and it is beyond reach in a context of fiscal inadequacy and chronic disequilibrium in the balance of payments. Doing everything almost at once in reform of financial, fiscal and international economic policy seems to be optimal strategy for both faster and steadier growth." (Shaw, p. 251) If policy recommendations are to be of any practical value we should have a sense of why we are constrained from doing everything at once and of the

implications for the role of finance in the development process when only partial reform is possible.

Section II: Financial Intermediation

The purpose of this section is to briefly review the role of financial intermediation in growth and development when real markets are perfectly competitive and relied upon to allocate resources and income contemporaneously and over time. If we make the reasonable assumptions that 1) transactions are costly, 2) information is costly and deteriorates in value as market conditions change and 3) the future is uncertain, a demand for the services of financial intermediaries will arise to complement the real sector. The fact that transactions are costly will of course create a demand for money and also create a demand for financial brokers to bring borrowers and lenders together.

Without access to external financing investors would be forced to self-finance. Since there is no reason to expect that access to wealth and investment opportunities are comparably distributed across businesses, a demand for borrowed funds will emerge. Similarly, current income may or may not correspond to current consumption demands of individuals. Individual savers would be willing to lend money to borrowers for some appropriate rate of return. In short, in the presence of nonsynchronization of wealth and investment demand, a demand for borrowed funds exists. With the nonsynchronization of income receipts and desired consumption expenditures a supply of loanable funds exists. Transactions costs can be reduced in the real sector through the use of money and in the financial sector through the services of financial brokers. The costs of acquiring and updating information about investment opportunities can be minimized

by financial firms which serve as brokers and information centers for savers and investors.

At the level of financial development just described, financial firms simply bring borrowers and lenders together and match, where possible, the value and term structure of loans supplied with the value and term structure of loans demanded. To the extent that financial brokers are competitive and efficient the spread between borrowing and lending rates on comparable term loans will be minimized. Clearly, the financial brokers play a significant role in the economy in signaling the allocation of investible funds in both the short-run and over time.

To explain how brokers become intermediaries we must recognize that the future is uncertain, and that individuals differ both in their assessments of the degree of uncertainty and in their willingness to assume risk. The existence of uncertainty and differences in the appraisal and willingness to bear risk create a potential market for financial intermediaries. Intermediaries profit by providing short-term, highly secure liabilities to savers in exchange for money which in turn can be lent to investors for longer periods of time for a higher risk adjusted rate of interest. If intermediaries can sustain large diversified portfolios of loans, the returns from which are less than perfectly correlated, they can reduce their own risks and raise potential profits. The competitiveness and efficiency of financial intermediaries will be reflected in the spread between loan and deposit rates and the degree to which the term structure of loans is longer than and uncorrelated with the term structure of deposits. In addition to the services provided by financial brokers, financial intermediaries facilitate the undertaking of long-term and risky investments that would not have taken place without their

services. Financial intermediaries extend the ability of the economy to allocate resources particularly in the direction of longer term and riskier projects at a minimum cost to society.²

In competitive markets there is little justification for political manipulation of the availability of investment funds. Financial and real markets are efficient. As a result of competition, political attempts to manipulate who gets loans and who does not through subsidized credit programs must reduce the short-run and long-run efficiency of the allocative process and reduce society's growth and development potential.

It is true that the distribution of income and wealth that results from perfectly competitive markets may be socially and politically objectionable. If so, direct income transfers would be more efficient than target loan programs in changing the distribution of income. More importantly, wealthy individuals are in the best position politically and economically to manipulate any subsidized credit program for their own profit. Their success would reinforce rather than reduce inequality in the distribution of wealth within the economy.

In contrast, by reducing the dependence of investment activity on self-finance, financial intermediaries can actually reduce the degree of wealth inequality that would otherwise exist. By providing savers with relatively safe short-term assets that provide higher real net yields than could be earned on cash hidden in jars, unsold crops, gold and jewelry, and/or illiquid asset holdings, financial intermediaries can increase the potential wealth accumulation by the poorest members of society. Obviously then, interest rate controls and/or subsidized loan programs that make it unprofitable for financial intermediaries to provide

such financial services to savers may have the perverse effect of contributing to the inequality of wealth and income.

Our discussion to this point has reviewed the reasons why financial intermediaries emerge in competitive markets and the complementary role that the financial sector serves in promoting efficient resource allocation, in reducing income and wealth inequality, in increasing the term structure of lending and in reducing the economic risk borne by entrepreneurs. Clearly, markets are not always competitive, externalities may lead to market failure and central governments rarely view their role in the development process as a passive one. In section III I will briefly discuss "optimal" intervention analysis as a vehicle for generating a representative distorted LDC economy. Within the context of that distorted environment we will want to reassess the role that financial services, particularly in the rural sector, can play in the development process.

Section III: The Weaknesses of Optimal Intervention Analysis

As indicated in the introduction, the purpose of this section is to adjust the perfectly competitive model just discussed in order to assess the role that financial reforms can play in rural development. My objective is not to replicate or explain conditions in a given LDC, but rather, to model those characteristics that are critical to an accurate assessment of the potential for policy reforms in LDCs and for their subsequent success or failure. There are many reasons why countries impose tariffs and manipulate international trade and capital flows, why certain producers are subsidized while others are taxed, why credit is

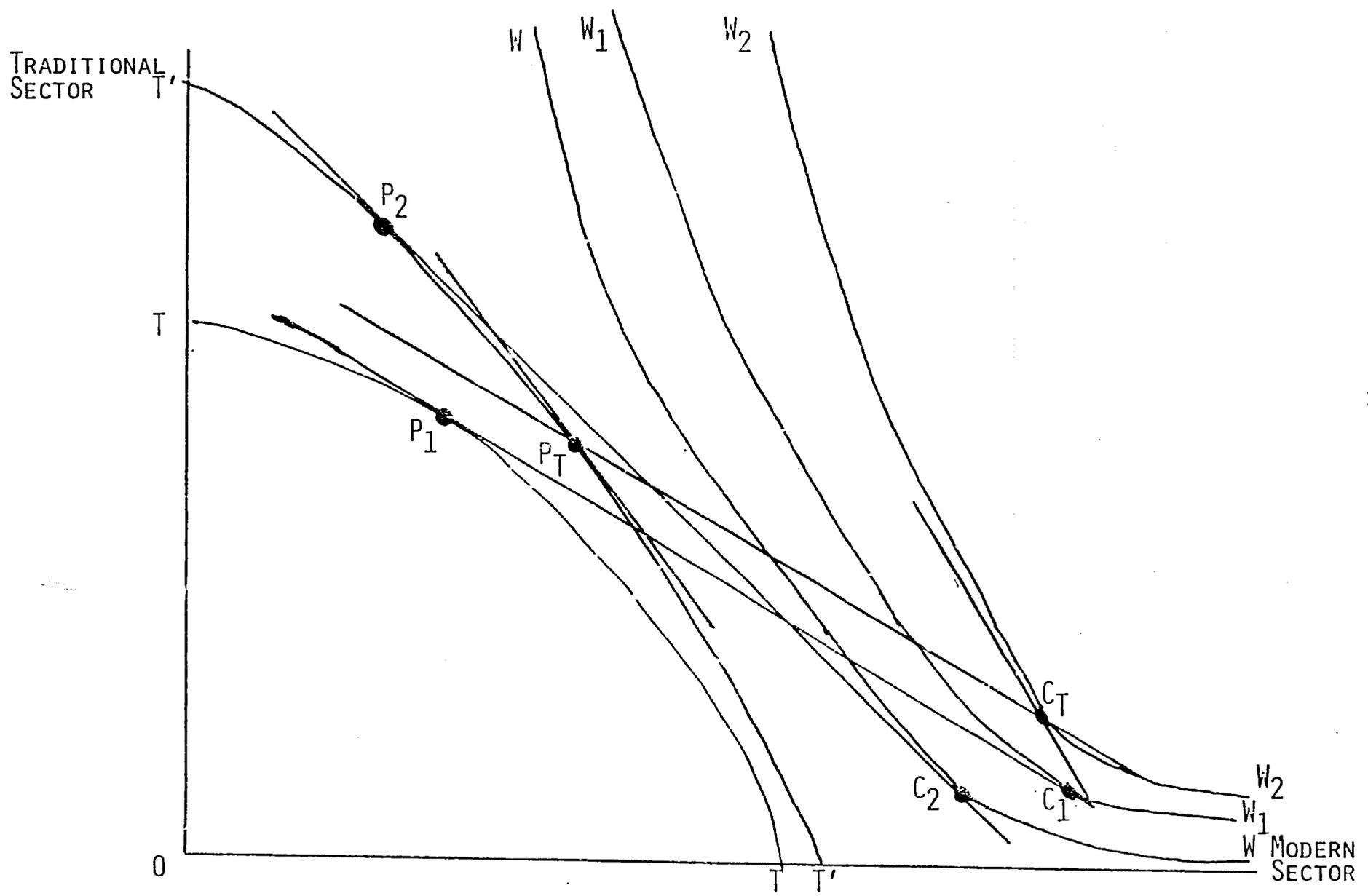
severely rationed for some potential borrowers and amply available for others. Optimal intervention analysis has been used to provide a simple argument for systematic government intervention in all areas of economic activity. For that reason, a summary of optimal intervention analysis arguments for trade, product market and factor market intervention can be used to outline the key structural elements of a representative LDC quickly and succinctly. By focusing on the deficiencies of optimal intervention analysis as applied to each of those levels of economic activity, we can generate a fairly clear picture of the kind of multiply-distorted and constrained economic environment within which policy-makers have to judge the value of alternative financial programs and reforms. It is in this same context that I want to discuss the role of finance in rural development. I want to provide some preliminary answers to two critical questions facing policy-makers in LDCs: (1) What financial reforms are worthwhile within developing countries when "doing everything almost at once in reform of financial, fiscal, and international economic policy" is not possible? and, (2) Why are we constrained to consider piecemeal as opposed to general reform?

In order to begin our discussion of optimal intervention analysis assume a two country, two commodity, two factor world. Assume, unless stated, that the country under study is a price taker in international trade as well as a net exporter of traditional sector goods (agricultural and primary products and perhaps some light manufactures) and a net importer of modern sector goods (highly fabricated consumer and producer manufactures, and high technology agricultural products). The two factors of production are capital and labor. Factors of production are

assumed to be homogeneous, flexibly priced and fully employed and production functions are well defined. A social welfare function with associated well defined and behaved welfare indifference curves is assumed to exist as well. Virtually all of these assumptions can be challenged and the consequences of relaxing them will be an integral part of our discussion in the latter part of this section.

With the assumptions outlined above in mind, we turn to optimal intervention analysis of deteriorating terms of trade for developing countries in world markets. Referring to the illustration of Case I,³ TT is the home country's production possibilities curve at a given time. By producing the combination of modern and traditional sector goods indicated by point P_1 and exporting traditional sector goods for imports of modern sector goods at a price of imports relative to exports reflected by the absolute slope of P_1C_1 , the LDC maximizes social welfare by consuming the combination of goods indicated at C_1 corresponding to a given level of social welfare, W_1W_1 . To the extent that the country experiences growth that is biased in the direction of more rapid expansion of traditional goods production, as indicated by the relative position of the new production possibilities curve $T'T'$, relative to the old one, TT , and the commodity terms of trade deteriorate for the home country, as reflected by the steeper world price line for imports relative to exports, P_2C_2 , free trade would lead to production at point P_2 , consumption at C_2 and a level of social welfare WW that is less than W_1W_1 . This is an example of welfare reducing growth (immiserizing growth). The home country has experienced real economic growth but the level of social welfare has actually declined. Assuming the home country can influence

CASE I: IMMISERIZING GROWTH

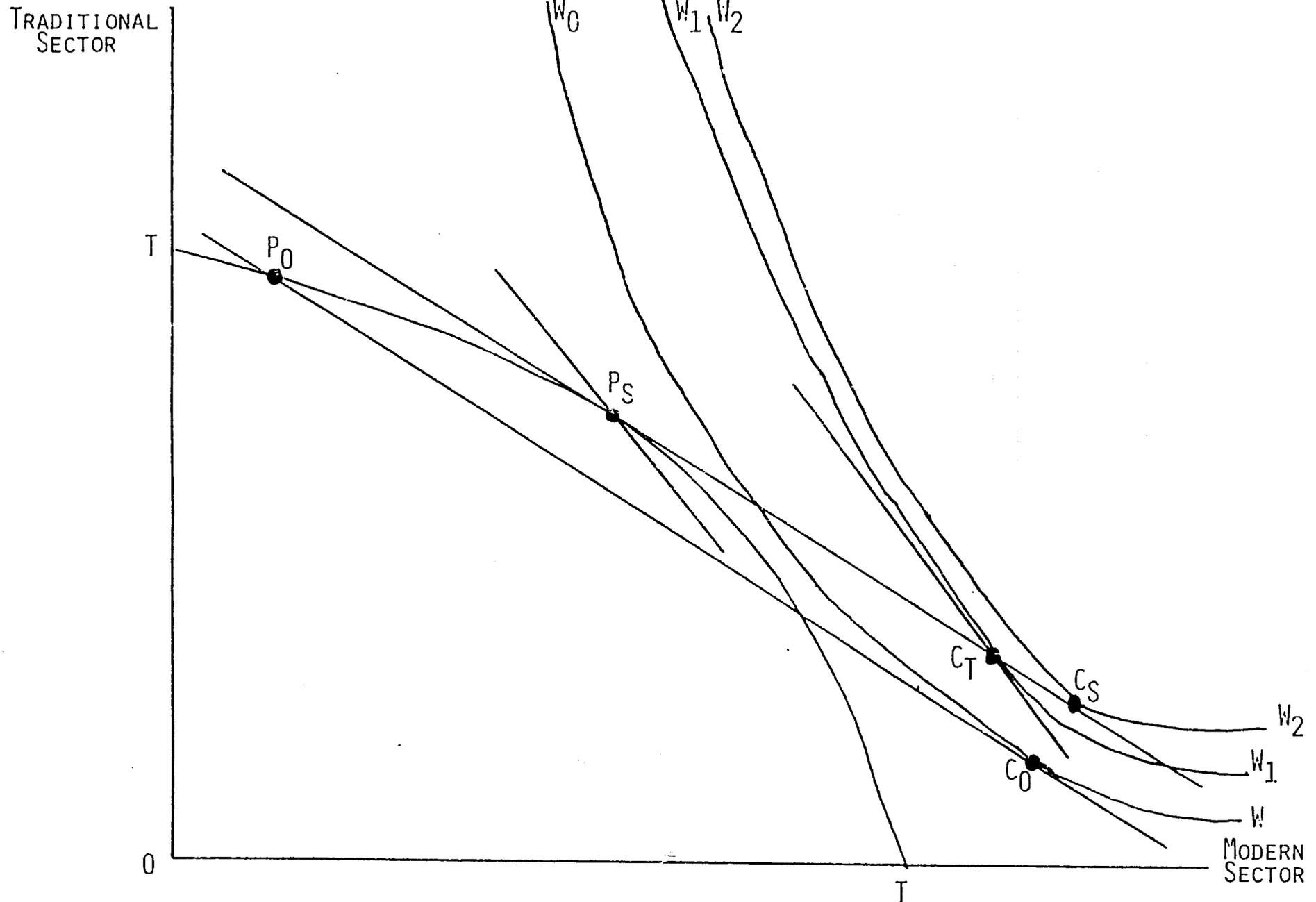


world prices by manipulating trade, a tariff could be used to shift production in the direction of modern sector goods from P_2 to P_T (import substitution), bias consumption in the direction of exportables, as indicated by point C_T , and depress the world price of importables, as reflected by the less steep relative import price line $P_T C_T$. As a consequence, the level of social welfare has been increased to $W_2 W_2$. A generalized presentation of optimal intervention analysis and welfare reducing growth can be found in Bhagwati (1968).

A number of arguments have been advanced to justify government intervention in product markets (Johnson, 1966). One common presumption is that production of modern sector goods entails the training and disciplining of workers who will later be able to change jobs and provide subsequent modern sector employers with skilled and disciplined workers that were not available to initial employers. In effect, modern sector employment generates both job specific skills, the value of which can be internalized in employment contracts, and general job skills, which benefit the individual workers and society but cannot be captured by employers. Generalized job training therefore represents a positive externality in the production of modern sector goods.

The implications for the economy of positive externalities in the production of modern sector goods are illustrated in the graph for case II.⁴ Assuming fixed world prices for importable modern sector goods relative to exportable, traditional sector goods, as indicated by the absolute slopes of lines $P_0 C_0$ and $P_S C_S$, production will take place at point P_0 rather than at point P_S . This is a classic example of market failure. As

CASE II: POSITIVE EXTERNALITIES IN THE MODERN SECTOR



indicated at P_0 , the ratio of social marginal costs (the slope of the production possibilities curve) is less than the ratio of private marginal costs that competitive firms equate to product prices. Consequently, resources are misallocated from the stand-point of society as a whole. There is too much production of traditional sector goods and too little production of modern sector goods. Exporting traditional sector goods for imports of modern sector goods, society reaches consumption point C_0 on welfare indifference curve WW . A tariff could shift production to the optimal production point P_S but, it would also create a consumption distortion. Exports of traditional sector goods in exchange for modern sector imports would yield consumption at point C_T on a higher social indifference curve W_1W_1 .

A more desirable policy approach would be to put a domestic tax on production of traditional sector output which would in turn be used to subsidize production of modern sector goods while maintaining free trade. That policy would be optimal in the sense that it would compensate for the existing distortion by shifting production to P_S while not introducing any new distortions. Free trade would permit consumption at point C_S at the highest obtainable level of social welfare indifference, W_2W_2 .

We now turn to our final case, factor market distortions. It is in the context of this discussion that one can begin to sense the deficiencies of optimal intervention analysis and the fundamental incompatibility of government credit controls with the emergence and growth of efficient financial markets. Throughout the discussion in this section, I have referred to the dichotomy between the modern sector and the traditional sector rather than between agriculture and manufacturing. The

point is that there exist traditional lines and techniques of production in both agriculture and manufacturing that compete for resources with modern lines and techniques of production in both agriculture and manufacturing.

To the extent that financial markets either do not exist or are highly fragmented because of cultural, historical, political and/or other factors, investment will be largely self-financed. In the absence of efficient financial market signals regarding investment opportunities, individuals will be forced to rely upon their own judgements regarding expected returns and risks from alternative investments. In that context, it is likely that individuals faced with two investment opportunities with the same frequency distribution of returns but, with one in the traditional sector and one in the modern sector, will not view those investments as comparable. Individual judgements will be biased toward a traditional investment project familiar to the individual and away from a new and seemingly venturesome investment opportunity in the modern sector with which the individual has no experience, even though both investments have identical objective probability distributions of returns. In effect, the individual is likely to attach an inappropriate risk premium to modern sector investments. Both investment and production will be biased toward the traditional sector and away from the modern sector. The situation we have been describing is illustrated in the graph of case III.⁴

If there were no bias in capital allocation toward the traditional sector, production would take place at point P_F and free trade exports of traditional sector goods in exchange for importable modern sector goods

at the fixed world price of imports to exports, reflected by the absolute slope of $P_F C_F$, would lead to consumption at point C_F on the highest obtainable welfare indifference curve, $W_3 W_3$. The bias away from modern sector investments will result in an over-allocation of capital to the traditional sector and an associated differential in the rate of return on capital, with the rate of return on homogeneous capital higher in the modern sector than in the traditional sector (reflecting an inappropriate risk premium on capital and consequent underallocation of capital to the modern sector). Production will occur along an operating locus that is interior to the production possibilities frontier, as indicated by the dashed line production locus, and at a point on the operating locus such as P_0 , where the world price line intersects the operating locus from above (Magee, 1973). With fixed world prices, production and consumption would be at P_0 and C_0 , respectively, and the level of social welfare achieved would be $W_0 W_0$. Both a production tax-cum-subsidy scheme that subsidized the modern sector and a tariff could shift production to point P_S on the interior locus but neither could shift production to the production possibilities curve since the capital market distortion persists.

At best, a tariff could shift production to point P_S and consumption to point C_T , which would raise the level of social welfare from $W_0 W_0$ to $W_1 W_1$. Since a production tax-cum-subsidy scheme would not create the consumption distortion of a tariff, it could be used to shift production to point P_S and consumption to point C_S on a higher welfare indifference curve $W_2 W_2$. By contrast, a subsidy on capital use in the modern sector and tax on capital use in the traditional sector could shift production

to point P_F and through free trade, consumption to point C_F on the highest obtainable welfare indifference curve, W_3W_3 .⁵

To this point the simple perfectly competitive model has been amended to include: trade restrictions, because domestic producers somehow fail to adapt as quickly to long-run trends in world prices as policy-makers could, product market taxes and subsidies, because free markets fail to function efficiently in the presence of externalities that can be best perceived and dealt with by policy-makers, and taxes and subsidies on capital use, because financial markets either do not exist or are viewed as an inferior means for allocating scarce capital resources when compared to government planning. Each form of intervention discussed in this section exists in virtually every country. Often such policies are adopted for reasons that have more to do with who has political and economic power than for the reasons discussed here. The primary concern at this point is not to explain why such policies exist but rather to discuss how well they work and the consequences of their implementation on the possibility of a positive role for financial reform in promoting growth and development, particularly in the rural sector.

There is one fundamental deficiency intrinsic in almost all of the literature on optimal intervention analysis. The optimal solution is always biased toward continuous government intervention.⁶ That bias should not be surprising since the literature itself emerged partly as an ex post rationalization for extensive government planning at every level of economic activity in LDCs. Government planners do not like the fact that the future is uncertain any more than the rest of us do. They can be expected to have a disinclination to watch passively as rapid

and sometimes disastrous economic changes occur within their economies. Their political success or failure turns on an uncertain future that they would rather attempt to control than observe. So, there is a bias to look for ways to control for, or regulate around, market deficiencies rather than to correct them.

In the example of deteriorating terms of trade, we simply assumed that markets failed to signal future changes in world prices that worked to the detriment of domestic producers of exportables. Somehow the government, but not the marketplace, realized that production had to be shifted toward the modern sector. Yet, the policy options considered did not include promoting the development of or, deregulation of already existing financial markets to improve their ability to signal the efficient allocation of resources over time in response to dynamic changes in domestic and/or international market conditions. While externalities in production do render market resource allocation inefficient, many externalities can be internalized by redefining property rights. Even in the case of generalized job training described earlier, government subsidies to producers to cover the costs of non-capturable generalized job training that would decline to zero as the magnitude of the externality diminished with the expansion of the modern sector is rarely considered. However, our third case is the clearest example of the bias in the analysis away from market solutions.

The inappropriate risk premium on capital use in the modern sector resulted directly from the failure of financial markets to efficiently signal capital allocation. Yet, the "optimal" solution did not involve the deregulation of existing financial markets or the fostering of

financial market development but rather, more government control in the form of capital tax and subsidy programs. That inherent bias in favor of controls and regulations over market solutions to economic problems on the part of policy-makers themselves is important to keep in mind.

When government intervention does take place in LDCs it differs from our presentation thus far in three important ways: 1) it is not costless, 2) it is not always self-financed and 3) it is not clear how much of which kinds of intervention are called for. I will discuss each of those points with respect to the capital financing problem.

With respect to the costs of administering a government credit program, it is unlikely that the infrastructure exists in many developing countries to impose a capital subsidy scheme for the modern sector that can be financed by capital use taxes in the traditional sector. So, even though factor taxes and subsidies seem optimal based on our discussion of case III, the government may find its only or cheapest option is to institute an indirect credit subsidy scheme financed with production taxes or, more likely, tariff revenues. In addition, it is quite likely that government revenue from all sources is insufficient to finance government projects including capital credit programs. In that case, the printing press will be used to cover government deficits. So, we end up with capital credit rationing either mandated without financing or financed by various taxes including the inflation tax. The consequent lack of fiscal integrity gives rise to pressure on the currency to depreciate, which is often resisted by exchange controls, official foreign loans and/or additional import restrictions. Domestic private savings and borrowing through

financial markets are discouraged by the expectation of accelerating inflation, and interest rate controls, and private foreign capital inflows are discouraged by unstable monetary and fiscal policy. Upward pressure on the relative price of importables is often dealt with through the imposition of price controls (Ray, 1981).

The problem facing the planner has compounded itself. Administrative costs of implementing financial support programs coupled with a lack of revenue raising infrastructure to finance those programs efficiently and fully contribute to the lack of both domestic and foreign private financial activity in the country.

The most serious flaw in the analysis, however, is the presumption that the government knows how to allocate credit when financial markets are not providing the "right" signals. Since private investors do not know how to correctly estimate the comparability of alternative uncertain investment projects, one might wonder why he should assume that government planners would do better. When we add to our discussion the observation that fragmentation in the financial sector implies that potential investors have no systematic information to appraise numerous potential investments both within and across sectors of the economy, we realize the magnitude of the allocative problem facing the policy-maker. Yet, as long as government credit programs and financial market regulations obstruct the development of private financial markets, planners will be forced to guess how credit should be allocated.

We have now developed a stylized view of our representative developing country which includes government intervention at every level of economic activity and a bias for regulation and/or intervention over market solutions

to economic problems. Differences in administrative costs of alternative forms of government intervention in any given instance may lead to second or third best forms of intervention when it does take place. The absence of a sufficient tax infrastructure to finance government programs will promote monetary and fiscal mismanagement, overvaluation of the currency, heavy official borrowing abroad and domestic price and interest rate controls. Finally, as illustrated in our discussion of government controlled credit programs, government programs and/or regulations serve as poor substitutes for market solutions to economic problems and play a significant role in preventing market solutions from developing? It is in the context of this multiply distorted environment that I want to consider the role of finance in rural development in section IV.

Section IV: Financial Reform

At the outset of section III I indicated that one question that I hoped to provide a tentative answer to is: Why are we constrained to consider piecemeal as opposed to general reform. Beginning with the stylized structure of a representative developing economy with which we concluded section III, general reform would embody many if not all of the following policies and consequences: a) slower monetary growth accompanied by higher taxes and/or reduced government spending to reduce deficits, which no doubt would increase short-run unemployment and cause a redistribution of capital gains in favor of creditors in general and financial asset holders in particular, b) trade liberalization and currency depreciation along with the removal of domestic price controls, which would generally reduce profits, production and employment associated with

domestic production of importables, raise domestic prices of imported consumer goods and stimulate export oriented industries along with some lines of production in the nontradable goods sector and c) reduced government regulation and control of production and credit, which would involve a transfer of profits, jobs and income away from lines of production previously favored by government regulations and subsidies and a redistribution of income away from investors who had previously received subsidized government credit.

In short, general reform like any economic change will create economic winners and losers. However, the losers will be those individuals and groups who directly benefit from existing multiple market distortions and may be able to dictate whether or not the current government will remain in power. Economic and political power may not be the same thing but they do tend to be highly correlated. Sweeping economic reforms of the kind outlined above are almost never in the economic and/or political self-interest of policy-makers currently managing a multiply distorted economic environment. Distortions allow them to allocate "administrative profits" that serve as political patronage.

Even when policymakers are convinced of the desirability of liberalizing trade, stabilizing prices and deregulating real and financial markets, they realize that if the lags in the perception of net benefits from such reforms relative to the status quo are very long they might not be around to accept credit for that ultimate success. In addition, the benefits of reform are often very diffuse and therefore difficult to turn into political profit. As suggested earlier, faced with the fact that the future is uncertain, government behavior is generally biased in the direction of taking

action, controlling, regulating, rather than passively waiting for markets to work their magic. So, policy reform is almost always piecemeal.⁵

Against that backdrop we want to know what financial reforms if any are possible and desirable and what their consequences would be. One problem domestic and international planners have is in not knowing how to judge the success or failure of a particular reform because its probable consequences were not clear in the first place.

For example, both Echaus (1973) and Tendler (1973) have pointed out that small farmer credit programs, SFCPs, often have several goals: to promote efficient agricultural production, to redistribute income and wealth to the poor and/or to develop economically viable financial institutions. Those goals are often incompatible, as Tendler pointed out: Efforts to promote efficiency may drive out small farmers; efforts to promote a more equitable distribution of income may be both inefficient and inconsistent with the development of viable financial institutions. Finally, efforts to maintain the viability of financial institutions may divert resources from agriculture in general with little or none of the loan money going to small farmers.

There are two obvious reasons why SFCPs fail to function well as equity programs. First any wealth transfer program based on discretion rather than competition is subject to manipulation and wealthier individuals are in the best position to corrupt the system. As Claudio Gonzalez-Vega noted in a recent paper (Gonzalez-Vega, 1981, p. 1), only 15% of all agricultural producers in Latin America have access to formal credit markets and 20% of them (only 3% of all producers) have gotten 80% of the total credit. In an earlier study Echaus (1973) noted that SFCP loans generally go to middle-class and upper-class borrowers and the

high default rates often observed and accepted as presumed worthwhile income redistribution are actually highest among middle and upper income borrowers.

The high default rate among middle and upper income borrowers is symptomatic of the second ingredient in the failure of small farmer credit programs to redistribute income to the rural poor: government apathy, or, perhaps, complicity. Many SFCs are externally financed. Governments starved for foreign reserves to maintain overvalued currencies borrow to cover trade deficits; they accept loans on the condition that they be used in SFCs with weak intentions of policing them, or allocating scarce domestic resources to make them work. In effect, the loans are viewed as one time transfers of wealth from abroad and defaulting on such "loans" is viewed with too little concern. If an internal commitment existed to redistribute income to the poor there would be little chance that SFCs would emerge as the most economical way of achieving that goal.

An effort can be made to develop viable financial institutions within the rural sector of LDCs. To the extent that many developing countries are moving in the direction of deregulating deposit and loan rates in urban areas, allowing rural banks to offer competitive deposit and loan rates would be useful in two important respects. First, to the extent that rural savers are offered competitive deposit rates they will have a potentially attractive financial form for wealth formation and liquidity balances that might compete effectively with current holdings of cash, jewelry, and crop inventories. In a world of mismanaged monetary and fiscal policy, however, there is a very real possibility that savings mobilization will fail not because the rural poor do not save but because

they are wise enough not to trust their savings to unreliable financial institutions.⁹

To the extent that there are legitimate loan opportunities in the rural sector there is a better chance that they will be discovered if there are local banks in the rural area. Commercial bankers generally cite two reasons for their lack of interest in rural loans. First, subsidized credit makes it impossible for commercial banks to operate profitably in rural markets. Ending cheap credit programs would remove that obstacle. Secondly, they argue that rural loans are not as profitable as urban loans. They would expect savings mobilized in the rural sector to be most profitably invested in the urban sector. Trade restrictions, domestic price controls, a bias in the investment of social overhead capital toward urban centers, production subsidies and subsidized credit programs all serve to undermine the profitability of investment in the rural sector (Ray, 1981). In addition, commercial bankers are faced with distorted information about potential investment opportunities when financial markets are repressed and fragmented, just as individual savers and investors are. Yet, money lenders find rural customers for high interest loans and they are not in business to give their money away. Even in a multiply distorted environment there will be some profitable investment opportunities in the rural sector. Given the opportunity to compete for savings in the rural sector commercial banks may well find it profitable to hire former informal market money lenders as loan officers in their rural branch banks. While most of the mobilized savings will probably continue to flow to government nurtured urban centers, some lending will occur in the rural sector that would not have been possible otherwise.

To the extent that real markets are multiply distorted along the lines first described in section III, SFCPs cannot undo existing resource misallocation. Chester Baker stated the case against SFCPs as a mechanism for improved resource allocative efficiency when he wrote "... the country papers and workshops would support a more general explanation for disappointing results from SFCPs: failure to appreciate the role of credit in the economic development of small farms and the dependence of economic development on other infrastructure reform. In the absence of reliable input and product markets, transportation and communication systems, and a reasonable flow of dependable information, no SFCP is likely to be wholly or perhaps even tolerably satisfactory. Moreover, the evidence is increasingly clear that the SFCP may be peculiarly inappropriate as a vehicle for wider infrastructure reform" (1973, p. 44). The peculiarity arises from the fact that efficient financial markets will quickly, correctly and at a minimum unit cost interpret real market signals regarding short-run and long-run resource allocation. But, if those real market signals are distorted as suggested by our earlier discussion, quick financial responses are no longer to be valued.

To summarize to this point, SFCPs have been developed to achieve several goals that are not always compatible. I would argue more strongly that SFCPs are an inappropriate means of achieving any of the goals for which they were designed. Internationally sponsored programs to provide subsidized loans to agriculture in developing countries represent a bad external policy response to bad domestic policies.

What can external funding agencies do? As already suggested, even in the most distorted economic environment savings mobilization programs offer the possibility of facilitating wealth accumulation and liquidity management in the rural sector. Over time, some loanable funds mobilized in the rural sector are bound to find competitive investment opportunities in the rural area. External funds could be used to subsidize commercial bank branching in the rural sector once SFCPs have been eliminated. Note that what we are advocating here is a subsidy program to accelerate the development of a formerly repressed financial market. The point is to foster the emergence of a financial market solution to the resource allocation problem and not to try to substitute government controls and regulations for a properly functioning financial sector. For a further discussion of those alternative approaches to problems of dynamic resource allocation see Lapan (1976) and Ray (1979).

What else can external funding agencies do to promote growth and development in LDCs? One inappropriate approach that seems to be gaining favor is for external agencies to finance real investment in the rural sector to counterbalance the previous domestic bias to over invest in the urban sector. Such a program seems compatible with the observation by Millard Long that public credit is not worth much if factor supplies are inelastic to farmers and access to outside markets is limited. Long seems to endorse such a strategy himself when he observes that: "In a technical sense, it is not credit but the physical inputs of fertilizer, seeds, labor, etc., which are responsible for the increase in output. Where the conditions of success for a credit program for small farmers are not met, alternative programs ... subsidies to the inputs, price

supports for the output, more extension work, or even credits to the marketing system rather than the small farmer ... may be capable of raising the welfare of small farmers at considerable lower costs than a credit program" (1973, p. 85).

The notion that the appropriate means of escaping the stagnant economic conditions induced by government controls and regulations is to construct counterweight programs that are comparably heavy-handed and repressive of financial markets is naive and contrary to the spirit of this paper. Such programs are naive in the sense that they would simply replace the presumption of optimal intervention analysis that domestic planners know what to do with the presumption that external agency planners know what to do. In addition, if subsidy programs for inputs, output price supports, etc. are mandated by external agencies as conditions for making loans to developing countries one can be certain that they will fail to achieve their goals.

Instead of fostering more market intervention, external agencies should begin by supporting savings mobilization programs or, financial institution building, as suggested earlier. To the extent that borrowing countries are willing to liberalize trade, rationalize real and financial markets they are certainly going to face depressed employment and output conditions and substantial political risks. External loans could help governments alleviate the worst aspects of such a painful but necessary transition. Again, loans could be used to ease the transition to market liberalization rather than to substitute more controls and regulations for market solutions to resource allocation problems.

Section V: Conclusions

Financial reforms in developing countries are almost never undertaken in the context of general and sweeping market liberalization. Consequently, we need to know what if any positive role financial reforms can play in a context of partial reform. In section II we reviewed the complementary role of finance in the development process. In section III we highlighted the arguments for central planning and regulation in developing countries and explained the basic incompatibility of full financial market liberalization and development planning.

Based on the presumption that reforms are constrained to be piecemeal, I argued that external funding agencies should use their resources to promote the creation and/or deregulation of markets. Direct intervention in the form of small farmer credit programs, SFCPs, and direct subsidies of inputs and outputs were found to be counterproductive. Instead, external funds should be used to: (1) help develop savings mobilization programs in the rural sector, (2) provide short-term subsidies to branching commercial banks in the rural sector and (3) low interest loans to governments that are committed to market liberalization and reform of fiscal and financial policies. The useful role that external lending agencies can play in promoting economic development will be country specific. But, with regard to financial markets the objective should always be to foster the decontrol and/or creation of viable and efficient markets.

Footnotes

1. The author is particularly indebted to Dale Adams, Claudio Gonzalez-Vega, Ed Kane, Robert Vogel and other participants in the workshop on Rural Financial Policy, Granville, Ohio, April 16-18, 1981 for direct contributions to the preparation of this paper and to the author's education regarding development problems.
2. To this point, I have at most provided an accurate if not brilliantly written summary of ideas first and best articulated by Edward Shaw and Ronald McKinnon.
3. The necessary and sufficient conditions required to illustrate production frontiers and welfare indifference curves as illustrated in cases I-III are available from the author upon request.
4. The associated algebra is straightforward and available upon request from the author.
5. The algebra associated with the general relationships illustrated as case III is available upon request from the author.
6. Two alternative analyses of optimal intervention analysis to deal with labor market distortions can be found in Lapan (1976) and Ray (1979).
7. In the same sense that Milton Friedman has described price controls as a cosmetic approach to inflation, "optimal" intervention invariably compensates for or covers up a given problem but never really solves it.
8. A number of years ago at a workshop on economic development I tried to press Joan Robinson to detail policies that developing countries could pursue to promote more rapid economic progress. She would only respond that first they had to have a revolution. Perhaps that is

another, more dramatic, way of saying that general economic reforms in many developing countries would require equally sweeping political changes. As a policy instrument revolution has been a rather unreliable tool for economic development. Too often it has simply reshuffled political power from one collection of special interest groups to another.

9. There is a danger here that by contributing to the success of savings mobilization programs in countries that are so badly mismanaged that financial assets become worthless, external funding agencies may find themselves guilty of complicity in robbing the rural poor of what little savings they have accumulated.

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