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ARE THE ARGUMENTS FOR CHEAP
AGRICULTURAL CREDIT SOUND?

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Eight common arguments used to justify low interest rates on agricultural credit are evaluated. It is pointed out that these arguments are either based on value judgments, are unsound, and/or wrong. Conclusions are that more flexible nominal interest rate policies that resulted in positive real rates of interest would improve efficiency of resource allocation, lead to less income concentration and improve the overall performance of rural financial markets.

Rare is the government in low income countries that does not fix low nominal interest rates on agricultural credit and even lower rates on loans made to rural poor. These rates are usually below those charged on other business or industrial loans, lower than the rate of inflation, and often too low for lenders to cover their loan transaction costs. Nominal interest rates are usually quite inflexible and are not adjusted with changes in non-agricultural interest rates. Because of volatile price changes, however, it is common for real rates of interest to

*Little in this paper is original. I have synthesized many of the ideas of Claudio Gonzalez-Vega, Edward S. Shaw, and Robert C. Vogel. I have also drawn heavily from discussion about problems of rural finance with F.J.A. Bouman, Compton Bourne, Christina C. David, B.M. Desai, Douglas H. Graham, Edward J. Kane, Yuzuru Kato, Jerry R. Ladman, Millard F. Long, Richard L. Meyer, J.D. Von Pischke, Edward J. Ray and Clark M. Reynolds. I have long since forgotten which ideas are theirs and which are mine.

change substantially and to stay generally negative.^{1/} The ease of initiating or expanding cheap agricultural credit programs makes them very attractive to harried policymakers who are trying to stimulate food production, to compensate farmers for other adverse policies, to help the rural poor, or to provide relief after some rural disaster.

Arguments used to justify low interest rates are intertwined and have religious and political roots that run deep below the surface of the discussion. Widespread confusion over the role of finance in development and the difference between nominal and real rates of interest further complicate discussion of these policies. The varied backgrounds of the people involved make it difficult to clarify, let alone resolve, these arguments. Systematic attempts to debate these arguments are often met with blank stares, counter arguments not germane to the point under discussion, and citation of horror stories that are several standard deviations away from any mean. Those who argue against cheap agricultural credit are hampered by the difficulties of documenting the subtle, diffused and complex effects that low interest rates have on rural households, rural non-farm firms, lenders, and the performance of rural financial markets.

^{1/} The real rate of interest is defined as the nominal rate of interest (the contractual rate) adjusted by the change in some overall price index. The real rate is equal to $[(1+i)/(1+p)]-1$, where i is the nominal rate of interest, and p is the change in prices during the year.

Eight common arguments are used to justify cheap agricultural loans. In the discussion that follows I briefly summarize these arguments and evaluate their strengths and weaknesses. I will conclude that higher and more flexible nominal interest rates would result in more equitable income distribution, more efficient allocation of resources, more output, and more viable financial institutions.

The Usury Argument

The charging of interest on loans made to a brother is condemned in the Bible, the Talmud, and the Koran. Partly because of these scriptures, many societies sustain strong biases against moneylenders. Loan shark, usurer and shylock are all pejorative terms attached to financial intermediaries. Part of these prejudices are due to intermediaries often being "outsiders": e.g., Jews in Europe, Indians in East Africa, Chinese in Southeast Asia, and Middle Easterners in Latin America. Both consumers and producers regularly blame economic problems on those who perform these poorly understood intermediary functions.

It is difficult to overcome value judgments about the badness of charging interest and the badness of people who do informal lending through reasoned debate. Value based views about usury should be weakened, however, by recent research that shows informal lenders do not regularly receive returns that are much beyond their costs. That is they do not receive monopoly profits. Research by both Singh and Harriss in India document

the high returns that informal lenders get for using their funds in their other, non-lending activities. In economic jargon, their opportunity costs for informal lending are high. Also, there are seldom barriers to entry to informal lending -- anyone with money can get involved. A number of other researchers have shown that the average borrowing cost from informal sources is much less than widely thought. For the new borrower of small amounts, these informal borrowing costs may be very similar to the total borrowing cost of acquiring formal loans (Adams and Nehman). As Barton and Bouman point out in other pieces in this volume, the widespread use of informal loans and their high repayment rates also show that most informal lenders provide valuable services to borrowers.

Railings against the moneylender may spice literature, massage prejudices, and offer facile explanations for problems experienced by the uninformed. It is much more difficult, if not impossible, to assemble objective information to support these views. Cheap credit policies that are based on assumptions about the evils done by moneylenders who are supposed to exploit borrowers through high interest rates may be chasing ghosts.

High Income Countries Charged Low Rates

A few policymakers argue that cheap agricultural credit is justified in low income countries because high income countries charged low rates on government loans to farmers in periods of crisis, especially during the 1930s. The experience of the U.S.

Farm Security Administration is commonly cited. During the 1930s most of the loans made by this agency were at nominal interest rates in the 2-7 percent range. Many of the U.S. technicians who helped develop agricultural credit programs in low income countries in the last three decades were trained by the Farm Security Administration and successor agencies. Low interest rate policies were commonly written into supervised credit programs, credit unions, and cooperative credit efforts by these U.S. technicians.

On careful analysis this line of reasoning turns out to be a non-argument. To clarify this, one must focus on real rather than nominal rates of interest. The nominal rate of interest is the price of the loan specified in the loan contract; it is the 5 percent received on a savings account and the 18 percent one pays if a charge card account is not paid in full each month. Nominal and real rates of interest are the same when no changes occur in overall price levels. Inflation or deflation, however, cause real and nominal rates of interest to diverge. Because the purchasing power of financial instruments goes down with inflation, rates of inflation greater than the nominal interest rates result in negative real interest rates and losses of purchasing power in financial instruments. In a number of the years during the 1930s overall prices in the U.S., and especially agricultural prices, went down. In four years agricultural prices went down by 20 percent or more (1930, 1931, 1932, 1938). This resulted in real rates of interest on formal agricultural loans among the

highest charged anywhere in recent history. This contrasts sharply with recent conditions in low income countries. Most of these countries have recently experienced rates of inflation well in excess of 10 percent per year, and several have sustained triple digit inflation. This widespread inflation has resulted in negative real rates of interest being charged on almost all formal agricultural loans made in low income countries.

Lenders Get Cheap Money

Occasionally, proponents of low interest rates will argue that agricultural lenders ought to charge low interest rates because the costs of funds lent are low. An agricultural bank, for example, may receive loanable funds from the government, from deposits that require no interest payment, from cheap rediscount windows at the Central Bank, and from concessionary loans or grants from foreign donors. The reasoning is that if the lender gets inexpensive funds that these benefits ought to be passed on to the farmer borrower.

This turns out to be another non-argument. It ignores the opportunity cost of money, the foreign exchange risks involved in borrowing foreign currency, loan default risks, and the real costs for staff and administrators that are involved in financial intermediation. In fact, many formal lenders around the world lose money on their agricultural loans, especially those made to the rural poor.^{2/}

^{2/} Those who use this argument also ignore the burden that low interest rate policies place on the saver.

Lender Viability

Recent discussions of interest rate reforms in the United States have focused on how deregulated interest rates would affect the viability of financial institutions such as savings and loan associations. Most of these associations have assets tied up in long term mortgages that carry interest rates below current market rates. If sold in secondary markets these assets would sell at sharp discounts from their face values. Deregulating interest rates paid on various savings instruments would force financial institutions to pay much higher rates of interest on their loanable funds, and force many into insolvency. In some cases this argument has been extended to low income countries.

There are several reasons why this argument against interest rate reforms in low income countries is weak or invalid (Vogel). The most important of these is that a very large proportion of the loans made by agricultural lenders in these countries is for a single crop season, often for less than a year. Medium and long term loans make up a small part of many lenders' portfolios. As a result, if interest rates were adjusted upward, only small parts of the lenders' assets would be discounted.

A second reason is that many of the lending agencies that do have significant amounts of medium and long term loans in their portfolios are government owned, and direct government subsidies could be used to offset reductions in lender's assets caused by interest rate reforms. Also, there is precedent in some countries for revaluing by government decree interest rates on

existing loan contracts. Some governments may be able to handle this issue by allowing lenders to renegotiate lending rates on loans already outstanding.

A more relevant viability question is, do formal lenders receive enough revenues to cover their costs? Agricultural lending is one of the most costly things that formal financial markets do because of geographic dispersion, collateral problems, the small size of loans made, and the risks inherent in farming. Even well managed lenders who recover a large part of their loans incur lending costs that run 10 to 20 percent of the value of the loans extended (e.g. see Dathey). In many countries, interest rate ceilings make it virtually impossible for formal lenders to realize enough revenue to cover these costs, especially if the lender is serving many rural poor. Increasing the interest rates that these lenders are allowed to charge would strengthen rather than undermine their financial viability.

Farmer Behavior

A more common argument for low interest rates is that they are necessary to induce farmers to make productive investments and to use new technology, and that this is a way for governments to share risks of adopting new techniques. Cheap credit to influence entrepreneur behavior is a simple extension of the Keynesian views on interest rates formed during the 1930s when real rates of interest were generally very high. All too many neo-keynesians ignore the fact that most real interest rates in

low income countries are currently negative. While the extremely high real rates of interest during the 1930s undoubtedly discouraged investments, it is much less certain that negative real rates of interest are necessary to induce socially desirable investments.

There are a number of additional problems with this argument. For example, it assumes that many farmers are irrational when it comes to making borrowing decisions. That is, a bribe is necessary to convince farmers to do something that is profitable. Schultz, Hopper, Yotopoulos and others have effectively shown that most farmers in low income countries make efficient and rational production decisions. It is surprising that this line of thinking has not been extended more rapidly into views about farmers' financial activities. If farmers allocate their own resources efficiently, including their own funds, why should they not allocate borrowed funds in the same manner? The concern with cheap loans may mask the fact that the expected rates of return available to many farmers are low.

Another problem with this argument is that cheap loans may not be inexpensive for some borrowers (Pablo). Interest payments make up only a part of borrowing costs. Additional costs included payment for paperwork, bribes, travel costs to visit lenders, and the opportunity costs of time taken to negotiate and repay loans. For the new and small borrower, these loan transaction costs may be several times the amount of interest paid. The reticence of many farmers to seek formal loans may reflect

relatively high total borrowing costs, poor quality of financial services provided by formal lenders, and uncertainties about the permanence of the formal lender. Uncertainties about when the loan will be disbursed and inflexible terms also lessen some farmers' interest in seeking formal loans.

Low interest rates may, in fact, be major factors that help explain why many farmers do not seek so-called cheap loans. For most lenders interest receipts make up a large part of their total income. As a result, low rates seriously diminish the ability and willingness of the lender to provide high quality and dependable financial services. The low rates on loans set a ceiling on the rates that can be paid for deposits and make it impossible for the lender to provide attractive savings deposit facilities. Low rates on loans also encourage the lender to shift additional loan transaction costs to those borrowers who are costly to service. As Ladman points out elsewhere in this volume, the shifting of additional loan transaction costs to these borrowers becomes part of the loan rationing process used by lenders to allocate "sweet money."

Higher rates of interest might, in fact, result in less expensive loans for borrowers who currently incur relatively large loan transaction costs. With higher interest rates, current large borrowers would borrow less and lenders would be forced to seek additional business from new and small borrowers. The lender may do this by absorbing or reducing some of the loan transaction costs imposed on individuals who are currently,

rationed by this technique. For some, the loan transaction costs may go down more than interest charges are increased, thus reducing total borrowing costs.

Another reason why many farmers are insensitive to changes in nominal interest rates is that interest payments make up a small part of their cash expenses. A large borrower who is highly levered may incur interest payments that consume a large part of cash flow. Borrowers of small to medium sized loans, however, usually are much less exposed financially and typically spend less than 5 percent of their cash expenses on interest payments. One should not expect these farmers to be highly sensitive to changes in interest rates, especially if the quality of loan services is improved and larger loans are made available.

Also, because of price and yield uncertainties, most farmers must expect very substantial returns at the margin before they will make an investment. They do not borrow money at 12 percent to make investments that they expect will return 13 percent, for example. Rather, they are only willing to borrow money, that must be repaid and that carries positive real borrowing costs, when expected rates of return are a good deal higher than the borrowing cost rate. Everyone will grumble about having to pay higher interest rates, but the wide margins that farmers must use in making investment decisions will result in only small adjustments in loan demand for many borrowers when rates are raised. In those cases where the real rates of interest are negative, modest increases in the rate of interest only reduces the amount

of the subsidy. Many farmers will still be anxious to get the loans even though they pay higher rates of interest.

The fact that large numbers of rural households regularly borrow from informal sources and pay interest rates substantially above those charged by formal lenders also suggest that many borrowers will not be extremely sensitive to interest rates on formal loans. High repayment rates to informal lenders also show that borrowers protect informal credit ratings. Does this indicate that informal lenders often provide more valuable services to borrowers than do formal lenders?

Income Transfer Mechanism

Many people believe that cheap agricultural credit is an effective way to transfer income to rural areas. Because poverty is concentrated there, these transfers are generally consistent with social objectives. There are three ways that loans can affect income distributions: through the net returns that borrowers realize from using additional resources purchased with loans, through the income transferred via negative real rates of interest, and through loan default. The effect on income of all three of these processes is proportional to the amount of money borrowed by an individual. Small borrowers get small benefits, large borrowers get large benefits, and non-borrowers get no benefits.

Recent research has shown that most cheap agricultural credit is concentrated in relatively few loans. Pieces in this

volume by Adams and Tommy, Gonzalez-Vega, and Vogel report on some of this research. These results support the "Iron Law of Interest Rate Restrictions" proposed by Gonzalez-Vega. That is, the lower the real rate of interest, the more heavily concentrated will be the loans in the hands of relatively few people. This fact may be masked by formal lenders who make a number of small loans to the poor, and by multiple large loans to wealthy borrowers. The modest average size of loans and the large number of loans made hide the fact that relatively few people receive most of the benefits from the cheap credit. This is not due to a conspiracy. The microeconomic interest of each lender combined with the excess demand that exists for negatively priced loans force lenders to ration funds to their most profitable and powerful customers.

Another effect of low interest rates on loans is that they force intermediaries to pay even lower rates, usually negative in real terms, on savings deposits in rural areas. Most of the well-to-do find places to invest their surpluses in non-financial assets so they are not seriously affected by the low rates paid on savings deposits. The low rates on deposits hurt poor households the most because they cannot assemble enough savings to buy lumpy, non-financial assets such as land and cattle. The poor are forced to accept a "tax" on their savings if they bother to open accounts, or to consume their surplus. The backlash of cheap credit is that the poor take a beating on their financial savings.

Low interest rates on loans and savings have a very regressive effect on income and asset ownership in rural areas; the rich gain at the expense of the poor. Because of fungibility, and the large number of participants in rural financial markets, it is impossible for governments to force financial markets to allocate significant income transfers to the poor (Von Pischke and Adams).

Interest Rates and Inflation

Another argument for keeping interest rates low is that raising them would add to inflation. This argument is partly based on the fact that interest payments are included in price indexes used to measure inflation. Also, those who believe in cost-push-inflation argue that interest payments are part of the cost of production and that raising these rates would directly fuel inflation through forcing producers to increase prices.

There are several reasons why these arguments are misleading and generally incorrect. Most importantly, they reverse the causation between inflation and interest rates. Where interest rates are not controlled, increased expectations of inflation lead to higher interest rates. It is also important to remember that an increase in interest rates has a one time impact on a price index, while inflation is an ongoing process. Interest rates would have to be raised every month in order to contribute continually to this process.

The cost-push notion of inflation, when applied to the agricultural sector, is very misleading. Most segments of the agricultural sector in low income countries include producers who have little or no control over the prices they receive for their products. They may wish that the prices of their products would increase to cover the additional costs of higher interest rates, but they have no power to capitalize on this wish.

There are several reasons why higher and more flexible interest rates would dampen rather than fuel inflation (Shaw). Higher interest rates would allow financial markets in rural areas to mobilize via voluntary financial savings a much larger part of their loanable funds than is currently the case. This increase in self financing would allow governments to do less deficit spending and to slow the growth in money supply. During the early 1950s the Taiwanese government used interest rate adjustments as a major tool to control inflation (Irvine and Emery). High interest rates allowed the financial system to mobilize large amounts of voluntary savings, and also allowed the government to slow the creation of money in order to expand agricultural credit. Recently, at least in Brazil, rapid increases in the amount of agricultural credit has been a major factor contributing to inflation (Moura da Silva). The higher interest rates would also provide more households with attractive alternatives to consumption. This would lessen the pressure on prices caused by strong consumer demand.

An equally important, yet subtle, effect of higher interest rates on inflation would be through facilitating more production. On the one hand, higher rates would force current borrowers to economize on their use of loans. This may result in some of them producing less because the costs of borrowed liquidity goes up. These losses in production would be slight, however, because part of the borrowed liquidity goes into low return investment and also into consumption. These production losses would be more than offset by increases in production by producers who gained more access to integrated financial markets. Higher interest rates would reduce loan demand among current heavy users of credit and encourage lenders to seek new customers in order to lend the increased volume of savings mobilized by higher interest rates. This would also lead lenders to eliminate loan transaction costs that currently discourage some from borrowing. Although difficult to measure or estimate, the potential output lost by those who get too little credit, the borrowing that is discouraged by excessive transaction cost imposed on certain borrowers, and the increases in the costs of financial intermediation caused by excessive regulation of financial markets result in large and important misallocations of resources. Many of these inefficiencies would disappear with the more integrated financial markets that would result from higher interest rate policies. The net additional production resulting from defragmenting rural financial markets would dampen not fuel inflation.

The Second Best

The second best argument is the Goliath of the justifications for cheap agricultural credit. Many thoughtful people recognize that the agricultural sector is often penalized by policies such as overvalued exchange rates, food price controls, taxes on farm inputs, and too little public investment aimed at creating a more productive agriculture. Policymakers often feel that these "taxes" on agriculture are unavoidable because of other, more pressing considerations. They recognize that these taxes discourage production and reduce incomes in rural areas. Cheap agricultural credit is often rationalized as a way of offsetting the adverse production and equity effects of these taxes. Cheap credit provides the income transfer that is supposed to handle the equity problem, and it is also supposed to induce the farmers to ignore the effects of the tax on the incentives to use more inputs.

There are several major weaknesses with this argument. The first is that all producers of a taxed good pay the levy, while only those who receive the cheap credit receive the subsidy. The tax is proportional to the amount of the good produced or sold by the farmer, but the subsidy is proportional to the size of the loan received. As pointed out earlier, because of the "Iron Law of Interest Rate Restrictions," low interest rates cause a concentration of cheap loans and result in a poor match between tax and subsidy on both equity and efficiency grounds.

The argument is further weakened when the efficiency effects are carefully evaluated. Ignoring for the moment the distributional issues discussed above, cheap credit will not overcome the inefficiencies in resource use caused by various taxes imposed on agriculture. These taxes either reduce the yields or prices of the product, or increase the prices of inputs. To compensate the producer for a tax, the price of the input must be reduced enough so that the producer is induced to use the same amount of the input that would have been used without the tax. Cheap credit is supposed to substitute for these lower input prices.

Trying to offset the inefficiencies in resource use caused by various taxes on agriculture through cheap credit, however, is like trying to sweep water up an incline. This is because of the essential property of financial instruments, their fungibility; because, credit is not an input; and because most firms and households using agricultural loans have multiple sources and uses of liquidity. Loans from formal sources are only a part of this liquidity. A loan allows the borrower additional command over any real resource or service available in the market. Because of fungibility, there is no direct relationship between the cost of the loan and the willingness of the borrower to use more of an input that is taxed, or to use more of the input to produce a good that is taxed. A poor investment continues to be a poor investment even though the investor has access to cheap credit!

An extreme example may help to illustrate this point. Let us assume that a government has placed a very high tax on mushrooms that are produced almost entirely for export. The tax is placed at such a high rate that producers of mushrooms find they are unable to make a profit producing any amount of this good because of the tax. Let us also assume that all producers of mushrooms have other economic activities like rice production, raising ducks and pigs, informal money lending, growing of marijuana, and household consumption. Let us also assume that the government has recently introduced electricity to the rural areas and has also opened several color television stations. Under these conditions no additional agricultural credit, regardless of its price, would be used by any of the producers to produce mushrooms. Rather, liquidity provided by the cheap loans would be used to purchase color television sets and to purchase additional inputs for those production activities that would yield the highest net marginal returns.

Granting the cheap loans in the form of production inputs (in-kind loans) would not overcome this problem. Borrowers could always divert these inputs to other production activities or sell them in the grey market and use the cash to buy the goods or services that would give them the most satisfaction.

The second best argument, especially when it is applied to multi-product and widely disbursed agricultural firms is unsound on both equity and efficiency grounds.

Conclusions

Interest rates are critical in determining the performance of financial markets, and cheap credit policies are a major reason for the poor performance of rural financial markets in low income countries. They have destroyed the incentives for rural households to save in financial form and seriously distort the way lenders allocate loans. I feel that the arguments used to justify cheap agricultural credit are unsound, based on value judgments, go counter to economic logic, and/or are not supported by empirical evidence. Because of the damage they cause and the large amounts of money involved in agricultural credit programs, it is important that the errors in these arguments be widely understood. As a minimum, policymakers who insist on continuing cheap agricultural credit policies ought to present more reliable evidence to support the assumptions on which their policies are based.

Much of the confusion about interest rates would disappear if policymakers stopped thinking of credit as an input, recognized the importance of real rates of interest, and clearly understood fungibility. Many of the problems in rural financial markets would also be eased if flexible nominal interest rate policies were adopted that resulted in stable and generally positive real rates of interest on both loans and deposits in rural areas. Sound policies cannot be built upon unsound assumptions and unsound arguments.

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