

Credit Availability and Bankers' Attitudes to Collateral Security*

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THE monetary problems of underdeveloped economic systems have increasingly received the searching scrutiny of a number of competent scholars in recent years. Several of these, notably Kannangara¹, Gunasekera², and Newlyn and Rowan³, have been impressed by the severe limiting effects, on credit availability to indigenous economic units, of the highly conservative attitudes to collateral security on the part of commercial bankers—particularly of bankers of expatriate origin. In a literary—intuitive contribution of rich glimpses and insights which may be regarded as a specific empirical outgrowth of the Keynesian macro-economic system adapted for 'underdevelopment' and economic 'dependence', Kannangara has indeed gone some way in asymmetrically integrating these availability effects with cyclical analysis⁴. The purpose of this article is to explore theoretically and more deeply but also more narrowly, certain implications for credit availability arising from bankers' attitudes to collateral security, at an exceedingly simple (commonsensical) level of analysis. Our (modest) aim is to underpin and to supplement (marginally) the earlier research. (It is not our purpose to study attitudes to collateral security as a form of non-price competition between banks.)

We proceed to do so by introducing the elementary (but highly restrictive) assumption that in making his loan decisions, the typical banker is *solely*

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¹ D. M. Kannangara "Formative Influences in Ceylon's Banking Development", *The Ceylon Journal of Historical and Social Studies*, Vol. 3, No. 1, Jan. 1960, pp. 82-95.

² H. A. de S. Gunasekera, "Banking Arrangements in Ceylon", in *Banking in the British Commonwealth*, (ed.) R. S. Sayers (Oxford Clarendon Press, 1952) pp. 401-421.

³ W. T. Newlyn and D. C. Rowan, *Money and Banking in British Colonial Africa.*, (Oxford, 1954) p. 82.

⁴ D. M. Kannangara, "The Role of Exports in Ceylon's Short-run Income Fluctuations", *The Ceylon Journal of Historical and Social Studies*, Vol. 6, No. 1, Jan-June, 1963, pp. 41-58.

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guided by the 'strength' of the collateral security. (The terms 'collateral security' 'collateral' and 'collateral asset' are used synonymously in this paper to denote an asset or assets pledged with the banker as a guarantee for the repayment of a loan or overdraft). Our banker decides the question of whom to lend, how much to lend, how long to lend and at what rates to lend entirely on the basis of collateral. By this assumption, we abstract from a variety of real-world complications arising from factors such as differences in the rates of interest that different borrowers are prepared to pay, the differences between clients as economic and social units, the volume and composition of bankers' liabilities and assets at the moment of decision-making and bankers' expectations relating thereto, restraints imposed by the monetary authority, by convention, by law and so forth. Among other things our assumption also implies that the banker has ample liquid resources to accommodate all 'credit-worthy' borrowers, and is willing to do so at current market rates provided the collateral offered is sufficiently 'strong'.

At any moment then, the banker will have before him a given number of loan applications. On the basis of the 'strength' of the collateral offered, and solely on this basis, he will reject some, and accept others. But why will he reject some? He will clearly reject those applications not backed by any offer of collateral at all. Bank credit will not be available to all those borrowers who are unable or unwilling to offer some form of collateral security. The effective demand for a commodity is demand which is backed by an adequate supply of purchasing power. The effective demand for bank credit, on our assumption, is demand backed by adequate, acceptable collateral security. This, our first conclusion, is trivial in the sense that it is implicit in our assumption; but is significant empirically in the sense that in most under-developed economic systems, those who do not have *any* collateral to offer probably outnumber by far those who have. The more interesting problem, however, relates to those applicants who do offer some collateral security. How will the banker then judge the "strength" of such collateral?

Consider the banker's view of the functions expected of collateral security. To the banker, the collateral is a guarantee that the loan will be duly repaid on maturity or on demand, as the case may be. In the event of default, the banker would want to recoup his capital and interest by realizing the collateral. He will want to do so quickly; without loss; without too much inconvenience and expense; and with the minimum amount of publicity. It follows that he will judge the merits of an asset offered as collateral security strictly from its ability to perform this function. Other things being given, the banker will then prefer, as collateral, an unencumbered asset to an encumbered one; a 'clean' title to a confused one⁵. He will prefer an asset which can be

⁵ *The Report of the Ceylon Banking Commission*, underlines "...the age-long defective system of documents evidencing ownership in land" as a major factor limiting mortgage lending in Ceylon. *Ceylon Sessional Paper XXII-1934*, p. 36, para, 143.

realized, in case of default, quickly; with the least amount of inconvenience, legal complications and expense. These are facts which are evident enough.

There are three other properties which all assets, and therefore, all assets offered as collateral, must possess in varying degrees. All assets earn some rate of income. (In the case of money, the rate of income earned is zero; but money provides a subjective yield.) There is a degree of liquidity and a degree of risk attaching to all assets.

The income earned by a collateral asset during the currency of a bank loan accrues to the borrower; and not to the banker. Nor would the banker normally wish to own the asset in case of default and retain it as part of his ordinary income-earning asset portfolio⁶. It follows from this that the banker will not be directly interested in the income-earning potential attaching to the asset offered as collateral. The income earned by an asset is not a direct criterion of the 'strength' of collateral. (In the real world, bankers do pay some attention to the income-earning potential of collateral. But they do so primarily as part of their attempt to assess the income-earning potential-repayment capacity-of the client or as part of their attempt to appraise the market value of the collateral rather than as a direct test of the 'strength' of collateral security in the sense used in this paper.)

Following current fashion, we define 'liquidity' in terms of the degree of perfection of the market in which an asset is traded. An asset market is perfect if the individual purchase or sale affects the market price of the asset only infinitesimally. We define the property of 'risklessness' or 'safety' in terms of the behaviour of the market price of an asset over time. If the market price remains perfectly constant through time, such an asset is safe or riskless. It is risky if the market price oscillates violently. The degree of risklessness and liquidity attaching to particular assets will be matters of much concern to the banker. Where the asset offered as collateral has a perfect market, the banker can be certain that the process of realizing the asset, in case of non-repayment, will not itself result in a loss of capital value of the collateral asset. Similarly, a riskless collateral asset carries with it the assurance that its market value will remain unimpaired during the currency of the loan. The banker will, therefore, other things being given, prefer, as collateral, a liquid asset to an illiquid one. He will prefer a safe asset to a risky one.

Money, by definition, is the most liquid, and the most riskless, of all assets. Consequently, the banker will prefer money as collateral to all other

⁶ This is indeed one of the characteristics that distinguishes the money lender from the banker. Many money lenders make loans with the express hope of acquiring the collateral security; and would, therefore, welcome non-repayment of the loan.

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assets; and his preference for other assets, as collateral, will vary positively with the degree of their 'moneyness'. But apart from exceptional instances, money will not be normally forthcoming as collateral security. The vast bulk of collateral offered at any moment will consist of non-monetary assets which, from the viewpoint of liquidity and safety must be inferior to money. In the exceptional case where money is being offered as collateral—as for instance in the case of a client who has a time deposit with the banker which he, for some reason, does not wish to withdraw—the banker will be willing to lend almost the full value of the collateral for as long as the collateral remains with the banker, at the current market rate of interest.

In so far as all other assets are inferior to money from the viewpoint of liquidity and safety and in so far as money is not normally forthcoming as collateral, it follows that the banker will lend *less* than the current market value of the collateral offered. The less liquid and/or less safe the collateral as an asset, the less will the banker be willing to lend, the greater will be the safety margin between the size of the loan and the market value of the collateral demanded, and the larger will be the rates of interest demanded from clients. As the degree of liquidity and safety attaching to collateral diminishes beyond a point, bankers' willingness to lend will be reduced to zero. The difference between the current market value of the collateral and the amount which the banker is willing to lend against that collateral as well as (the risk component of) the rates of interest charged on loans of given duration will tend to vary inversely with the degree of liquidity and safety attaching to assets offered as collateral.

Thus we arrive at the important conclusion that the volume of relatively safe and liquid non-monetary assets not already encumbered will be a significant determinant of credit availability (as well as of observed interest rates) at any given moment. Other things being given, the larger the existing stock of relatively safe and liquid non-monetary assets in the economy, the larger will tend to be the availability (and, therefore, the flow) of credit at given market rates of interest on bank advances. Other things being given, and with a given stock of unpledged non-monetary assets as well as with a given spectrum of market rates of interest on bank advances, the availability of credit will tend in general to vary positively with the degree of perfection and stability in asset markets.

In underdeveloped economic systems where the stock of non-monetary assets which can serve as collateral must necessarily be small, and where asset markets are narrow and rudimentary, credit availability will tend, for these reasons to be smaller (and *de facto* rates of interest on bank advances higher) than in the developed economies in so far as bankers are primarily governed in their loan decisions by the strength of collateral offered as security. The extent to which bankers are so motivated in their loan decisions is also almost certainly

much greater in general in the underdeveloped world than in advanced economic systems. The strength of these factors in limiting credit availability is beyond dispute in many underdeveloped countries⁷. In so far as credit availability is so reduced, it is a factor limiting both the geographical and occupational mobility of capital, and therefore, the rate of economic development itself. On the other hand, the process of economic development can be expected in turn to reduce its significance by (a) creating a large stock of assets which can serve as collateral; (b) creating more developed asset markets; (c) modifying bankers' stress on the importance of collateral; and (d) the growth in the relative importance of non-bank financial intermediaries.

As regards (c) above, Kannangara has already drawn attention to the notable difference of attitudes to collateral security among British bankers in the United Kingdom and those in Ceylon (and perhaps elsewhere), at least until the comparatively recent establishment of the Peoples' Bank. Kannangara⁸ describes the current attitude of the British bankers in the United Kingdom by citing Sayers,

“... in contemporary British banking collateral security, though still taken in a large number of cases, does not play its former critical part. The attitude of the English banker is rather that he will look at the clients' business plan... as a whole, will consider its soundness... Having sized up the proposition and knowing his man, the banker will lend the required sum and will take what collateral security the client can conveniently offer *without worrying greatly* about the relation between the sum to be borrowed and the market value of the collateral⁹.

To return to our analysis, on our assumption, the availability of credit will be restricted to those borrowers who can offer assets acceptable as collateral security. It follows, therefore, that the inter-group **distribution** of the ownership of unpledged non-monetary assets existing at any moment will be an important determinant of the availability of credit to different socio-economic classes and group borrowers. Where such ownership is heavily concentrated in the hands of a narrow group—a familiar feature in many underdeveloped territories—the availability of credit will also tend to be restricted to such a narrow group. Where there is such heavy concentration of ownership, asset markets must also tend to be imperfect—atomistic ownership of assets being a necessary condition for perfection in asset markets. In so far as the concept of economic development involves a wider distribution

⁷ Confused and imperfect titles to assets is a further important factor limiting credit availability in many underdeveloped economies. The limitations on credit availability arising from an inadequate stock of satisfactory collateral assets is stressed in Ceylon's *Six Year Programme of Investment*, Planning Secretariat, Colombo, p. 265; also see W. T. Newlyn and D. C. Rowan, *op. cit.*, p. 82; and Ida Greaves, *Colonial Monetary Conditions*, (London, H. M. S. O., 1953) p. 47.

⁸ D. M. Kannangara, “Formative Influence in Ceylon's Banking Development”, *op. cit.*

⁹ R. S. Sayers, *Modern Banking*, (Oxford, 1953), 3rd edn. p. 304. (author's italics).

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of assets, economic development can also be expected to correct this tendency. Note that the remedy can be in the direction of greater volume and a wider distribution of assets or towards a lessened emphasis on collateral security on the part of lenders or in a combination of these.

In general, the longer the maturity period of the loan, the greater will be the risk of loss to the banker, in case of default, arising from a fall in the market value of the collateral asset. Hence in general, on account of this reason too, the banker would prefer to lend short rather than long. The longer the loan, the more will the banker tend to stress the importance of risklessness attaching to collateral. It follows, therefore, that the stock of unpledged, relatively safe non-monetary assets in the economy will be an important determinant of long-term credit availability. The inter-group distribution of the ownership of such assets will be a determinant of long-term credit availability to different classes of borrowers. Many writers on underdeveloped economies stress the significance of tradition and convention as factors limiting the availability of bank credit for medium and long-term purposes. In this writers opinion, they pay inadequate attention to the limitations imposed on long-term credit availability by the dearth of safe assets which can serve as effective collateral in such economic systems. For instance, before 1929, 'exchange banks' in Ceylon did engage in a significant amount of mortgage lending. With the collapse of capital values of collateral assets in the 1930's Depression, however, this form of lending virtually disappeared¹⁰.

On our assumption, when collateral-asset prices are rising (*i.e.* when the rate of interest is falling) or when they are expected to rise, bankers' willingness to lend at *given* market rates of interest, and hence credit availability, will tend to *increase*. But in so far as the rate of interest is a price, with an upward-sloping supply curve of credit, the amount supplied will tend to *fall* as the interest rate falls. The 'collateral effect' and the 'price effect' will work in opposite directions on the supply of credit. We thus have a 'collateral effects' on credit availability resulting from changes in interest rates. In the Keynesian 'special case' where asset prices have risen so high that expectations are predominantly in the direction of a fall in asset prices, we can also expect a 'collateral effect' - resulting from bankers' expectation of losses, in case of default, accruing from a fall in the market value of collateral securities-to strengthen bankers' liquidity preference.

The strength of the 'collateral effect' can perhaps be expressed as a 'collateral elasticity' in terms of the relation between a small change in asset prices and the resultant change in credit availability after allowing for all other asset effects on credit availability. The size of this elasticity will depend, among other things on the degree to which bankers stress the importance of collateral in their loan decisions; on the relation between current price changes

¹⁰ *Ceylon Banking Commission, op., cit.* p. 28. para, 106.

and expected price changes of collateral assets, and on the degree to which bankers allow themselves to be guided by current and expected price changes of such assets. Where bankers follow highly cautious and conservative lending policies, the elasticity may be nearly zero when asset prices are rising, but may become very large when asset prices are falling or are expected to fall.

Where the collateral effect is significant, the monetary authority, by means of operating on expectations relating to asset prices or by influencing the degree of uncertainty with which such expectations are held, may be able at least in principle to exploit 'collateral effects' to the advantage of monetary policy. Given the strength of the collateral effect, the ability of the monetary authority in practice to exploit it will depend on its ability to control asset prices, or to produce changes in asset-price expectations. The greater the strength of the collateral effect, the smaller would tend to be the change in asset prices necessary to achieve a given collateral effect on credit availability. In so far as bankers' willingness to lend depends not only on current and expected asset prices, but also on the degree of confidence with which such expectations are held, injection of uncertainty into asset markets may be expected to produce similar restrictive 'collateral effects'.

Subjective elements enter into the bankers' willingness to lend through their expectations of future asset-price changes. The relation between current and expected asset-price changes can perhaps be expressed in terms of the Hicksian elasticity of expectations. The higher the elasticity of expectations, other things being given, the smaller would be the current change in asset prices necessary to produce a given 'collateral effect' on credit availability. When the elasticity expectation is unity, this means that "a change in current price will change expected prices in the same direction and in the same proportion".¹¹ As pointed out by Lange, this implies the assumption that the expectation functions linking expected with current prices is homogeneous of the first degree.¹² A possible objection to the use of the elasticity concept is that it expresses something akin to mathematical expectations discounted for uncertainty which come close to making the problem of certainty itself disappear through the back door. Many different kinds of uncertainty are bound to be present particularly in the downward phase of the cycle, and expectations about future prices of collateral assets are bound to be held with much uncertainty. The degree of uncertainty with which such expectations are held may indeed change quite violently in critical periods and may bring about a bank-induced monetary contraction, even though there may or may not be parallel bank-induced monetary expansion in the upward phase.

¹¹ J. R. Hicks, *Value and Capital*, (Oxford, Oxford University Press, 1939) p. 205.

¹² Oscar Lange, "Say's Law: A Re-statement and Criticism" in *Studies in Mathematical Economics and Econometrics*, (ed.) Lange, McIntyre & Yutema (Chicago, The University of Chicago Press, 1942) pp. 67-8.

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So far we have proceeded in the assumption that bankers are guided solely in their loan decisions by the strength of collateral offered. In the real world, however, their loan decisions, as well as attitudes to collateral security will be conditioned by a host of other factors. In the first place, lending decisions will be influenced by the volume, composition, stability and cost of the bankers' liabilities, the distribution and rates of earning on their existing assets and by their expectations relating thereto. In the second place, specific and general limitations may be imposed on their choice by the monetary authority and the state. In the third place, conventional, legal and institutional factors will no doubt introduce further constraints into choice. As a result of all these factors which impinge on banker's decision-making, the weight of importance attached to collateral varies in different countries ; and indeed among different banks in the same country at any moment. It has also tended to change over time. As earlier argued, in the United Kingdom today, collateral security does not play the vital role that it did in the last century. The importance attached to collateral by bankers in the United Kingdom today is generally less than in some of the underdeveloped countries or even in the United States or in Australia. Even in the underdeveloped economies, the indigenous banks, though often younger, have generally been more flexible in their attitudes to collateral than their expatriate competitors. Indeed, in all countries all banks pay some attention to collateral, although some fully or partly unsecured loans may be a common feature in the advance portfolio of many banks.

Other things being given, the greater the bankers' expectations of the ability and the willingness of a borrower to repay, and the greater the degree of confidence with which an expectation is held, the less will the banker look to the strength of the collateral. Both objective and subjective elements enter into the formation of a bankers' judgement about the ability and willingness of his client to repay a loan. Objective elements are such factors as the income earned by the client as shown by his previous accounting periods, the current volume and distribution of his assets and liabilities, the volume of ordinary capital invested in the business, the nature of the projected 'venture', his past business, and credit record and so on. Subjective elements enter through his assessment of the 'soundness' of the project, his judgement of the integrity of his clients, and so on.

It follows that the greater objective knowledge possessed by the banker of his client and of the client's business, the greater will in general be the degree of confidence with which he will hold a particular expectation about his client's ability and willingness to repay a loan. The more obstacles there are to the acquisition of such knowledge, the more will he tend to stress the importance of collateral security. Thus in certain racially heterogenous underdeveloped economies such as Ceylon¹³ and West Africa¹⁴ where banking is dominated by

¹³ *Ceylon Banking Commission, op. cit.*, p. 29, para, 110.

¹⁴ *Newlyn and Rowan, op. cit.*, p. 82.

expatriate banks under British management and where the British bankers have a few points of contacts with the indigenous populations, the bankers' stress on security tends to be greater than in countries where the banker has ample opportunities to meet and study his man. Other contributing factors in such economies often to be met with are the unwillingness of the indigenous entrepreneur, in oligopolistic competition with his British rival, to confide to the fullest extent in the British banker, and the poor accounting methods adopted by him which renders a clear understanding of his affairs by the banker difficult if not impossible.

Even on our restrictive assumption that the banker is solely guided in his loan decisions by the collateral offered it was seen that important subjective elements could enter via bankers' expectations of future asset prices to influence credit availability. If, however, loan decisions are governed more by bankers' judgement about the ability and willingness of client to repay than by considerations of collateral, the general state of business confidence in the country can enter quite easily and may completely overshadow the collateral effects on credit availability. When business optimism is high, the banker may not only look less critically at the collateral, but also may tend to take a more optimistic view of the client's ability to repay, than in a situation where the business outlook is gloomy. In these conditions, credit availability will tend to move in sympathy with changes in business activity, aggravating cyclical instability there is a *prima facie* case for vigorous compensatory measures by the monetary authority aimed at changing credit availability by changing bankers' ability to lend.

Subjective elements entering into bankers' judgement about client's willingness and ability to repay also have an important bearing on the relative effects on credit availability resulting from unit banking as opposed to branch banking. In a system of branch banking, the use of discretion allowed to branch managers is likely to be limited by head office control. The local manager can never convey and the head-office can never take full account of, all the subjective elements and nuances involved in the local bankers' judgements about a client. Other things being given this suggests that (i) unit banking is likely to be more responsive to the needs of local demand, particularly if local conditions suffer from a dearth of assets which can serve as effective collateral. (ii) branch banking is likely to result in greater stress on the importance of collateral security in loan decisions. (iii) there may appear significant differences between the attitude of the head-office towards collateral from its own clients and its attitude towards collateral demanded from the clients of its branches, particularly where the branches are located in remote areas or overseas. However, the above arguments do not constitute a convincing case for the adoption of unit banking in preference to branch banking in underdeveloped economies¹⁵; they constitute only a case for deliberately *minimizing* such disadvantages under a system of branch banking.

¹⁵ For a discussion of the relative merits of branch vs. unit banking from Ceylon's point of view, see D. M. Kannangara, "The Growth of Branch Banking in Ceylon", *The Ceylon Journal of Historical and Social Studies*, July - Dec. 1966, Vol. 9, No. 2, pp. 134-154.

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To summarize: Bankers attitudes to collateral security have important implications for the availability of credit. Where bankers stress the importance of collateral, (i) the volume of unpledged relatively safe and liquid non-monetary assets in the economy and the degree of perfection and stability in asset markets will be important determinants of bankers' willingness to lend, and therefore, of credit availability, and consequently, of economic development; (ii) the inter-group distribution of the ownership of the stock of assets which can serve as collateral will be an important determinant of the availability of credit to different economic classes, groups and units; (iii) changes in current asset prices and in expectations relating thereto may produce 'collateral effects' in addition to other 'asset effects' on credit availability which the monetary authority may be able to exploit to advantage. Where bankers are guided more by objective judgement about the ability of borrowers to repay, rather than by considerations of collateral, there will exist a tendency for bankers' willingness to lend to move in sympathy with the general state of business confidence. The subjective elements entering into bankers' judgement has a bearing on the choice between unit banking and branch banking.

It is a point implicit in this paper that the main ideas here explored (if inadequately), if skillfully woven into the simple, flexible Kannangara model¹⁶ would have enriched it, at least marginally from an empirical viewpoint (for the interpretation of economic events of the colonial period and the post-colonial decade) and significantly from a conceptual-literary standpoint. It is hardly necessary to point out that Kannangara's simple, highly-aggregative, qualitative-literary model¹⁷ as well as his more sharply-drawn (but less flexible), larger and more complete and extensively-disaggregated (but less-easily manageable) model fitted with actual numerical-statistical data for Ceylon¹⁸, have by now been rendered obsolete by subsequent structural-institutional change in the Ceylon economy. The task of building an up-dated new model of at least intermediate size for Ceylon, capable of yielding accurate short-range predictions, has become an urgent and challenging one—such models now exist for many countries such as India, Greece, Italy, Japan, U. K. etc.¹⁹, Such an improved, revised, annual model, using the original Kannangara version as a stepping stone, but larger and more ambitious in scope than that model, is now being assembled experimentally by a group from the Department of Economics at Vidyodaya. For instance, population growth is introduced as an important separate explanatory variable in aggregate consumption in this model while a liquid-asset variable, L, is also incorporated into this equation to show a significant liquid wealth effect. However, it is premature to report on this model at this early stage.

¹⁶ See footnote 4.

¹⁷ *Ibid.*

¹⁸ D. M. Kannangara, *Central Banking in Ceylon*, 1959, (unpublished Ph.D. thesis), ch. III–VI, pp. 92–282.

¹⁹ M. Nerlove, "A Tabular Survey of Macro-econometric Models", *International Economic Review*, 1966.