The Liberalization of the Financial Sector in Mauritius

by

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Background.

The Mauritian stance towards monetary policy is best described as one that tries to affect the "cost and availability" of credit rather than seeking to control money supply aggregates through the cash (or reserve) base. The primary objective of policy appears to be to improve foreign exchange reserves via suppressing imports and encouraging exports. To this end the instruments of policy seek to influence the cost and availability of funds for imports (and exports).

Up until July 1988 the major instruments of monetary policy were the following:

(1) Cash Reserve Ratio: currently set at 10%,

(2) Liquid Assets Reserve Ratio: currently set at 23%,

(3) Aggregate Credit Ceiling for the Banking Systems Private Advances: currently set at 20% but may vary across banks in the system according to whether or not they have exceeded these ceilings in the past.

(4) Credit Allocation: within these ceilings are credit allocation guidelines that currently set a minimum of 50% for the EPZ companies (tier 1 companies) a maximum of 25% for traders (tier 3 companies) and a "free" 25% that can be allocated among tier 1, and tier 2 companies -- where tier 2 companies are those that produce import substitution goods.

(5) Interest Rate Ceilings: a minimum rate was set for savings deposits (8% in July) and various maximum loan rates for the different classes of borrowers. Specifically rates were set on loans according to the export promotion or import promotion nature of a company's business. Thus export promotors, or EPZ companies, were commonly charged bank rate plus 1 1/2% while traders, who are primarily importers, were commonly charged bank rate plus 5%.

In July 1988 the Bank of Mauritius decided to liberalize interest rates by abolishing the minimum savings deposit rate and the maximum loan rate guidelines.

The Experience under Interest Rate Liberalization.

To all intents and purposes the liberalization of interest rates has been a failure in that there has been virtually no movement either in the level of rates on average since July

(i.e. over the last 5 months) or in the range of rates charged by individual banks. Specifically an implicit cartel seems to have replaced an explicit cartel in the setting of interest rates. Bankers appeared to continue to look at Bank rate or Treasury bill rate, exogenously set by the Bank of Mauritius, as the guideline level from which to set their rate structure. There appears to be two major reasons for the failure of interest ceiling removal to have the desired pro-competitive effects. First, bankers' expressed a wariness about changing interest rates in a direction that might contradict the government's objective of promoting exports and discouraging imports. For example, many banks acknowledged that under a competitive banking system premiums would be charged on loans above base rate dependent on the nature of the borrowing firm's risk. This might mean, in some cases, charging higher rates for loans to EPZ companies than for traders. Since government was perceived to desire subsidies (on interest costs) for the export promotion sector they believed that they might ultimately be penalized by following such policies. Second, is the high degree of deposit concentration in the banking system, despite the presence of 13 banks. The two largest banks the Mauritius Commercial Bank (MCB) and the State Commercial Bank (SCB) control over 75% of bank deposits. Moreover, MCB plays a dominant leadership role in the Mauritius Bankers Association. The third and fourth largest banks, Barclays and Hongkong bank have less that 10% of deposits each. Given this dominant role of MCB few smaller banks are willing to challenge MCB, e.g. by undercutting their loan rates, for fear that if this giant reacts they (the smaller banks) will only end up worse off in a rate-war. In addition, if they lose loans and if growth ceilings are tightened their loan base will be smaller and the effect greater in terms of the number of new rupee loans that could be granted in the future.

What Needs to be Done to Increase Competition and to Free up Interest Rates?

First, the Central Bank should consider changing its system of selling Treasury bills to the banking-system. Currently the Central Bank exogenously sets the rate (currently 9 1/2% on 3 month bills) and supplies them on tap to banks, i.e. with a perfectly elastic supply. By shifting to a system of T. bill auctions, on the lines of those conducted in the U.S. and the UK, where a discriminating auction is held, the bill rate becomes more flexible, more endogenous to the banking system and the current

"signalling effect" of the Central Banking setting the rate level exogenously is dissipated. Under a discriminatory auction the Central Bank would announce a weekly supply of 3 month, 6 month and 12 month bills. Each bank would enter sealed bid tenders indicating desired quantity and prices(s), and, at the close of the auction, bills would be allocated in descending order of price bid. As a result, the "T. bill rate" would reflect the quantity weighted average of the winning bids. Moreover, as the supply of T. bills altered over the weeks according to the Treasury's financing needs and demand changed according to banks reserve and investement needs so would the T. bill rate. This would have the effect of creating a more flexible relationship among T. bill rates, savings deposit rates and loan rates.

Second, to the extent that credit ceilings are retained with the same aggregate desired growth rate (20%) banks' might be allocated individual credit ceilings on an inverse relationship to their size. Thus, the smallest banks might be allocated ceilings exceeding 20% while the largest bank, MCB, might be constrained to under 10%. Over time this would work to decrease the relative degree of concentration in the banking system and to increase the level of rate competition as banks become of a more equal size.

Third, there is a clear need for Central bank moral suasion to indicate to the banks that they wish to see interest rate liberalization working. This would mean the Central Bank and the government indicating a willingness to accept a loan interest-rate structure based on risk premiums with the potential implication that some EPZ companies may pay higher rates than traders.

Fourth, the government might introduce more savings instruments that are competitive with bank deposits on the lines of the eight (8) year savings bonds issued to the public in 1987 (see below). If banks see a significant erosion of funds as savers switch out of deposits into these new financial instruments, they would have to compete or else witness a secular decline in the relative importance of banks in the financial system. To this end, the government might consider introducing shorter-term e.g. 1, 2 and 3 year savings bonds, with rates competitive with bank savings and time deposits. At the time of writing there is a high probability that a new issue of savings bonds will be made in 1989 at maturities of less than 8 years.

Other Liberalization Measures.

Savings Bonds.

As a second liberalization measure, in addition to abolishing rate ceilings, the Central Bank, in 1987, issued two "Bank of Mauritius Savings Bonds" (see above) that were available to the household (non-financial institution) sector only. The first was a regular 8 year bond paying 14% coupons with semiannual payments (i.e. 7% every 6 months). The second was an eight year zero coupon or discount bond that returned 3 times the amount originally invested. Moreover these zero-coupon bonds were tax free, while income-tax was payable on the coupons on the regular 8 year bond. Using semi-annual discrete discounting the annual tax-free yield to maturity on the discount bonds was 14.2% which clearly dominates the yield on the regular coupon bonds. It was also specified that these bonds[1] could be traded on the forthcoming Port Louis Stock Exchange (see below). To aid such trading the Central Bank would keep a central registry of ownership, however buyers and sellers could register transfers through nominees such as banks and brokers.

Overall, the sale of these bonds appears to have been a major success with Rs 27,449,000 of the regular coupon bonds being sold and Rs 235,550,000 of the tax free discount bonds.[2]

Over and above their value in increasing the menu of available assets in the Mauritian financial system these new instruments should also play an educative role for the Mauritian saver in handling and assessing investment risk. If these bonds are held to maturity no capital (principal) risk is involved i.e. the investor receives back full face-value or a guaranteed multiple of principal. However, if, because of liquidity or

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[1]1. Using the formula:

$$I=3I/(1+\frac{1}{2}y)^{16}$$

where I is the amount invested and y is the annual yield to maturity.

[2]It might also be noted that the Development Bank of Mauritius recently announced a Rs 100 million issue of 10 year 8.5% semi-annual coupon bonds that are also tax-free. This is aimed a pension funds and financial institutions.

consumption reasons, the saver seeks to sell these bonds on the Port Louis Exchange and the level of interest rates has changed from the time at which these bonds were purchased then the market value of these bonds will be either higher or lower than their par value.[3] That is, many small investors will be subject to capital gains and loses on investments for the first time. Since equities also share this feature, i.e. uncertain returns due to capital gains and losses, these bonds should prove an important testing ground regarding the desire of Mauritian savers to hold a more risky set of investment assets. Further, given their dispersed ownership, the potential market volume of trading in these bonds far exceeds the current potential for trading in many individual shares on the new exchange. For example, in the case of MCB, the most widely held company, the current number of individual owners (including employees) is only approximately 3,500.

Overall Assessment

Given the above, it is recommended that the Bank of Mauritius continues this experiment by making new offers of regular and discount savings bonds with different maturities. Apart from absorbing and encouraging new savings this would allow savers to better match their desired investment holding periods to the duration of these bonds. By offering a whole schedule of maturities and rates the small investor will learn to trade off return and risk as well as the potential advantages of diversification. (Indeed one of the minor innovations announced in the 1987/88 Minister of Finance's budget speech was issuance of Treasury Certificates to the non-household sector with maturity ranges between 2 and 20 years at a progessive rate schedule.)

A New Stock Market in Port Louis

Background

Mauritius has had a stock market for more than one hundred years. However, in recent years the market has been virtually dormant and in vital need of reform. The (old) bourse was built around a Chamber of self-regulating stockbrokers. In recent years their number has dwindled to about 8 active brokers. These brokers receive sell orders form their clients and advertise this information in the local newspaper. Once or twice a

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[3]Indeed since the zero-coupon bonds have a longer duration than the regular coupon bonds they are more interest-rate (yield sensitive)

week these brokers meet for a "call-over" to buy and sell shares. At the November 23rd "call-over" the brokers convened at 12 p.m. to trade 8 stocks, these included MCB, resort hotel shares and a sugar estate's shares. The packages were very small (see Table 1). The bidding for these shares proceeded by way of an open "out-cry" auction with the broker selling the shares conducting the auction among the remaining brokers. The broker that verbally put in the highest price bid won the whole package of shares on offer. Bidding was concluded by 12:10 p.m. Bids were either from customers of brokers or for the brokers own account (the latter has only been allowed over the last two years). Because of the extremely thin and collusive nature of the market, price-rigging is apparently quite common with individuals' selling a block of stock through one broker and then buying them back through another to set artifically high prices that will be quoted before the next call-over when the investor might then seek to sell-off a larger block at those artifically inflated prices. To add to market inefficiency is the apparent lack of regulatory enforcement by the Registrar of Companies under the 1984 Company's Act. All new issue prospectuses have to be filed with the Registrar and satisfy company law in terms of disclosure. However, reputedly, the Registrar merely files these prospectuses and fails to adequately check the material accuracy of the information enclosed. Moreover, the Companies Act requires publicly held companies to hold annual general meetings and to publish annual accounts. Again these requirements are commonly flouted and the Registrar fails to enforce these provisions in the Courts. Instead, the stockholder is left to his own devices to seek legal redress.

As a result, the current stock market had developed a very poor reputation, among investors, and this largely accounts for its (current) moribund state.

The New Stock Market.

Legislation is being finalized to create a new stock market in Port Louis. Indeed a bill has been published (11/24/88) outlining the regulatory framework for the new stock exchange. Indeed, a Stock Exchange Commission (SEC), modeled on the U.S., has already been appointed. The role of the SEC will be to ensure efficient markets in terms of seeking greater disclosure of information about publicly traded companies as well as avoiding abuses such as price-rigging and insider trading.[4] Thus, all new issue

[4]For example, in the proposed bill insider trading is subject to a maximum penalty of 100,000 rupees and 10 years imprisonment.

TABLE 4.1

Stock Market "Call-over" on November 23, 1988

Quantity	Company	(Face Value)	(Previous Price)	Today's Price
				(Rs)
424	Mauritius Commercial Bank	(Rs) 10	(Rs) 50.50	50
846	Excelsior United pref.	1	10	5
1,879	F.U.E.L. preference B	10	6.50	5.60
20,150	Reuland ordinaires	0.25	1	1.15
168	G.I.D.C. preference	1	1.10	1.10
44	Mauritius Breweries	10	42	43
1,328	Mon Desert Alma-ordin.	25	27	31
457	Mon Tresor & Mon Desert	7.50	30	31

prospectuses will be examined by the SEC to ensure, as far as possible, the material accuracy of the information enclosed. Moreover, strict criteria will be layed down as to which companies will be allowed to have their stocks listed on the market. Although these criteria are not specified in the bill and have been left to the SEC to decide, discussions suggest that a company requesting listing may need among other things (i) a three -year profit track record, (2) a willingness to allow 25% or more of its shares to be publicly traded on the exchange and (3) have 500 or more shareholders. The first condition seeks to sort good from bad firms, the second and third to ensure sufficient trading volume.

The market micro-structure that will be adopted has yet to be formally decided. This will take place after the legislation has been passed. One suggestion has been to mimic the trading arrangements on the Lyon Bourse in France. This market would essentially work as follows: each morning before 11:30 a.m., brokers would receive buy and sell orders from their customers with associated reservation prices for buys/sells. At 11:30 a.m. a market administrator would sit down with the brokers and simultaneously collect all buy/sell orders for stock X. He would then seek to find a price that clears the market. Implicitly he constructs the reservation demand and supply curves and finds the price at which the market for stock X clears. This is the opening (and closing) price that would be announced when the exchange formally opens at 12:00 p.m. -- since consensus among the brokers regarding X's stock price had already been reached through the direct confrontational process prior to the market's formal opening. If aggregate demand exceeds supply, in terms of the pure quantity of orders, the equilibrium market-clearing price would be published as P^d where P is the clearing price and superscript d denotes that on that day demand orders exceeded supply orders. If aggregate supply orders exceed demand then the market price would be reported as P^s. After the direct confrontation over stock X has been concluded, then the same process would be repeated for stock Z and so on until the daily clearing prices are set for all stocks. These consensual prices would be those announced on the official stock floor and reported in the press.

The alternative (and more likely to be accepted arrangement) is to adopt an "open-out cry" system similar to that used on the Malaysian stock market. This is a relatively

small market that trades mostly commodity-based company shares (especially rubber). The open-outcry system is also widely used in trading futures (e.g. in Chicago) and is like conducting auctions on a continuous basis. In this case the stock exchange would announce hours of opening say from 12 p.m. - 3 p.m. During this period customers would phone in orders to their brokers to buy and sell shares. On receipt of a sell order a broker would conduct an auction on the trading floor among the other brokers present. Thus, the number of sell orders would determine the number of auctions. The winning bid price would then be posted on a large board visible to all other brokers. For this system to work well it would need quite a high volume of order flows so as to keep the traders busy over the trading period. As already noted above, under the old system auctions were often completed in 10 minutes. This suggests that on balance, given that initial trading is likely to be very thin, the "Lyon system" may well be best at this moment in time. However, as trading builds then the open out-cry system would probably be better as a long-run optimal "market micro-structure."

The SEC will not only overview the activities of the market administrator but will also license the brokers on the new exchange. Indeed, the SEC will license both individual stockbrokers as well as stockbroker companies (defined as companies consisting of more that two licensed brokers). To ensure suffficient capital, so that they will be able to act as market-makers without risk of failure, brokers will be required to form companies prior to trading. As a result some existing brokers are unlikely to participate on the new exchange,[5] and some new and larger participants may be attracted either from the commercial banks, insurance companies or the State Investment Corporation.

How Many Firms Will seek Listing?

The success of the new exchange depends crucially on how many companies seek to have their stocks listed and this will, in turn, depend on a benefit-cost calculation for each firm. On the benefits side are the following:

(1) Prestige: Those firms listed will have their names and prices continuously published and discussed in the media. These companies will become the blue-chip

[5]Many will be excluded because brokers are prohibited from holding more than 5% of the shares of publicly traded companies.

compan ies of Mauritius.

(2) Signalling: By applying for listing a company's managers are indicating that they are not afraid of disclosing information nor of facing greater discipline from stockholders i.e. they are signalling to investors and the public that this is a "good" company.

(3) Raising New Capital: Only by being listed will a public firm be able to raise additional equity capital or for a new company to make an initial public offering (IPO).

(4) Tax Incentives: Important tax incentives both for a listed company and its stockholders were announced in the last budget (see Table 2). These could be very important for all companies other than EPZ's[6]

(5) Stockholder-Labor consensus. It creates an opportunity, if labor stock-bonus schemes are introduced, to create a better tie between the interest of managers, stockholders and workers towards profit (or firm value) - maximization as the primary goal of the firm.

[6]This is because the latter already pay very low or no corporate taxes at the moment.

TABLE 2

Tax Incentives to buy/list shares on the new Port Louis Stock Market

1. 35% of dividends received by an individual on quoted securities will be exempt from income tax in addition to the income tax deduction given on dividends and interest.

2. Companies listed on the stock exchange will pay corporate tax at the rate of 25% instead of 35%.

3. Stamp duty on the issue of new shares and securities is abolished.

4. Registration fees on the transfer of shares and other securities will be abolished.

5. Profits up to 100,000 rupees in any one financial year from the sale of shares, bonds, etc... shall be exempt from income tax.

In addition for all foreign companies wishing to incorporate locally provided that minimum of 25% of their shares are floated on the stock exchange and they are incorporated within the next two years:

(1) Are exempt from payment of land transfer tax

(2) Are exempt from payment of registration duty on transfer of assets

(3) Are exempt from Stamp duty on the transfer of shares

(4) Are exempt from payment of transaction duty.

However, on the cost side are the following considerations:

(1) Dilution of Control. By having their stock listed on the Stock Exchange, existing owners face the potential problem of losing a degree of control over the firm. Indeed, given sufficient dilution of control, the firm exposes itself to potential takeovers by hostile rivals and other firms. While it seems unlikely that trading on the stock market in Mauritius will unleash a takeover wave it will, nevertheless, have the tendency to exert greater stockholder democracy which existing owners may dislike. This dilution fear appears to be particularly prevalent among Sugar Estate owners.

(2) Management Discipline. Without an active stock market, managers are often free to pursue their own interests such as "size growth" and non-pecuniary benefit consumption that may be at variance with the best interests of stockholders, (which is to maximize the value of the firm (the value of its stock price)). In an active stock market, stockholders are able to exert more discipline and control over managers both through takeovers, decisions made at annual general meetings and electing directors to oversee their best interests. As a result managers, fearful of loss of human capital if fired, tend to perform "better" in a value-maximizing sense. Given this potential outcome, existing managers may be reluctant to see their firms listed and their valuable non-pecuniary benefits lost or modified.

(3) Information Revelation. One of the major changes in the bill is the requirement for a greater degree of accounting information revelation to the public. Thus for example, banks in Mauritius would be required to disclose the size of their hidden "inner reserves" set aside to meet potential loan losses. This requirement appeared to be a very sensitive issue among Mauritian bankers and may inhibit them seeking a listing in the initial stage of the market.

Given these benefits and costs the number of companies that are likely to seek a listing is unclear. Reportedly, only two new companies i.e. those that have not been traded on the old stock exchange, have expresed an interest -- Mammoudh (a furniture company) and a subsidary of ABC Motors. The number of firms whose stocks traded on the existing market over the period 1985-88 amounted to approximately 60 (Mauritian L'Express 11/12/88), of these, the most optimistic estimate (by the Chairman of the SEC) is that 30 will seek a listing, with the most pessimistic estimates being

around 12. Moreover, it is likely that some of the firms that apply will fail to satisfy the listing criteria adopted by the Exchange.

Will Small Shareholders be Attracted?

One of the motivations for reforming the stock market has been to attract new investors, in particular "smaller" savers, who had previously invested only in bank deposits or savings bonds. The crucial question is how small is "small". It seems very unlikely that individuals with savings or time deposits of less than 50,000 Rupees will be interested in directly risking investment on the stock market. The Bank of Mauritius Annual Report 1987 (Tables 2.10 - 2.12) shows that 11, 392 savings accounts had balances exceeding 50,000 Rs while 25,662 time deposit accounts exceeded the same total. However it is likely that some of these accounts would have the same owner as well as being held by firms and other public bodies. The Annual Report shows that 70.3% of Time deposits were held by Professionals and Persons, while 91.9% of Savings accounts were held by the same group. Using these figures to roughly adjust the gross totals, gives 18,040 Time deposit accounts and 10,469 savings deposits over 50,000 Rs. Thus assuming no-overlap between demand and time deposits there are probably no more than 28,500 "potential" shareholders. However, it might be noted (using the same 70.3% and 91.9% adustments) that these depositors potentially control 4,138,075 million Rs. It is very difficult to predict just how much of these deposits will flow directly into equities. Specifically it will largely depend on the relative size of dividends to interest rates, the attractivess of any new savings bond issues as well as the degree of risk aversion of large depositors to capital value risk (economic theory suggest that risk aversion may decline with wealth). Indeed, perhaps paradoxically, the issue of household savings bonds is likely to deter the development of the equity market.

While the very small investor (defined here as those with savings/time deposits under 50,000 Rs) may not wish to invest directly in the stock market he may be attracted by unit trust or mutual fund investments. This is because unit trusts and/or mutual funds are able to achieve a degree of share diversification not open to small investors who choose to invest in stocks directly. With this in mind a State Mutual Fund has been established (owned jointly by SCB (50%) and the State Investment Corpoation or SIC (50%)). It is proposed that the SMF will start issuing units on a

monthly basis beginning when the stock market opens next year (at the ask price) while standing ready to buy back the shares on a daily basis (at the bid price).

While this mutual fund may be attractive to investors because of its implicit government backing, they may be put off if the bid-ask spread is too wide and/or SMF extracts a large management fee. Unfortunately, if SMF is to remain solvent it is likely that the bid-ask spread would have to be quite wide (perhaps 10% of the intrinsic price) given the likely low volume and thinness in the market's early stages.

Overall Assessment.

There is no doubt that the existing stock market needed to be reformed to match the growing aspirations and economic development of the Mauritian economy over the past 4 years. However, the lack of education and experience among small investors as to stocks as investments, the attractiveness of savings bonds as competing investments as well as the likely thinness of trading (and threfore price volatility), will probably keep the number of potential investors to no more than a few thousand. Moreover, the real test of the market will come with the next stock market downturn when many of these new investors will lose money for the first time. If confidence is broken it is likely that the market will rapidly revert to the club like atmosphere of the old Bourse.[7]

Offshore banking. The third aspect of the current deregulation of the financial system is the proposal to establish offshore banks (OSB's) in Mauritius. Indeed, the enabling legislation should be completed by the end of 1988. In its purest form an offshore bank is a shell organization that takes in (books) deposits and makes loans only to non-residents in foreign currencies. Moreover, such shell organizations are often free from taxation by the state as well as regulation by the Central bank. A good example of OSB's in their purest form are those in the Bahamas. The major revenue gain for the country being the once and for all (or in some cases annual) license fees charged to these OSB's. A vital question in evaluating the OSB as a financial innovation in a Mauritian context is:

How attractive is Mauritius as an OSB Center?

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[7]While the investor might be exposed to price risk he will be protected from broker default. The new bill requires the Exchange to set up a Compensation fund using required contributions from its members. On default of a broker the investor will be directly compensated from this fund.

As in the case of public listing of stocks, a bank has to make a net benefit-cost decision. The major factors are follows:

The Size of the License fee.

The higher this fee the less attractive Mauritius will be compared to other off-shore centers. To date the size of the license fee has yet to be announced.[8] (Indeed this will only be decided by the Bank of Mauritius after the legislation has been passed.)

The Degree of Taxation.

While many countries do not tax their OSB's it seems probable that some degree of taxation will be imposed in Mauritius either on profits or interest earned by depositors . Clearly, the greater the degree of taxation the less attractive the location. No firm decision on the level of taxation has so far been reached.

Other Activities in the Region.

The more a bank is immediately involved in activities in other countries in the Mauritian regional sphere the more attractive is an OSB. The regional sphere for Mauritius might be defined as India, East Africa, South Africa, Reunion and Madagascar. Banks with extensive networks in those countries will have the ability to attract and direct business towards their Mauritian OSB. Thus, for example, Barclays and BNPI with a large regional presence are more likely to be interested in an OSB in Mauritius than, say,the Hong Kong bank whose major area of business falls largely outside this region.

The Perceived Degree of Capital Flight.

A major potential source of funds to an off-shore Mauritian bank is likely to be "unofficial" and official capital flight from less stable countries. A major potential source of funds is seen as South Africa. However, it remains to be seen whether Mauritius can offer the degree of low sovereign risk (or safe haven) desired by those engaged in capital flight. For example while economically Mauritius may be perceived as quite strong it is unclear whether it is perceived as being politically more stable than a country such as Switzerland. The worse potential depositors perceptions are, regarding Mauritian sovereign (or country) risk, the less attractive will be OSB's there.

Time Zone.

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[8]Although the fee to establish a foreign branch in Mauritius is $25,000.

Mauritius stands in a rather unattractive time zone (i.e. nine hours ahead of New York and four hours ahead of London). In making a continuous "24 hour" banking market -- banks tend to look towards their OSB centers in the Far East such as Singapore. Further, Mauritius already has a rival in the same approximate time zone in Bahrain. Thus it is questionable whether banks that have a OSB presence in Bahrain, such as Citicorp, would be very interested in establishing an additional center in Mauritius.

The EPZ Sector.

Currently EPZ companies are allowed to keep foreign currency deposits in special accounts at local commercial banks (albeit at zero interest and commission fees). However, foreign currency loans have to be arranged abroad on the euro-markets or by borrowing in rupees and changing funds with a 1% commission cost, into foreign exchange. A vital consideration is whether EPZ companies will be allowed to shift their business to the OSB sector and how much of that business can be shifted. Hong Kong bank expressed little interest in an OSB if no EPZ business were to be allowed. However, they indicated that they would be "forced" to apply for a license should the EPZ sector be allowed to move their foreign currency deposit and loan business to an OSB. Although legislation has yet to be finalized the Minister of Finance has given every indication that EPZ firms will be allowed to bank with, and borrow from, the OSB units on a restricted basis (i.e. for short-term loans less than 90 days for working capital purposes). If this materializes in the actual legislation it will greatly enhance the interest of banks in establishing OSB's. However, it will produce administrative headaches for banks, in seeking to separate their domestic EPZ transactions from those viewed as non-domestic and "off-shore" related.

The Degree of Separation of the OSB Unit from its Domestic Counterpart.

If the OSB law, as seems likely, requires a strict separation of the OSB from its domestic parent (e.g. Barclay's OSB unit from Barclay's domestic branch) both in terms of bookkeeping, personnel and computer hardware this will greatly add to the costs of establishing OSB units and reduce their perceived profitability.

Intrusiveness of the Central Bank.

The role played by the Central bank is also crucial in establishing the attractiveness of OSB units. In particular "secrecy" for depositors appears to be a vital ingredient to an

OSB center's growth. On the other hand an absence of monitoring could lead to the growth of undesirable activities such as drug money laundering. Thus the Central Bank has to strike a fine balance as to over - and - under - monitoring of OSB's activities. To date no information is forthcoming as to how the Bank of Mauritius proposes to strike such a balance, although a possible outcome is that it will collect aggregate balance-sheet figures and examine the loan portfolio, but not seek the identity of depositors. This type of examination and supervision is found in Bahrain.

The Quality of Telecommunications.

The quality of telecommunications in Mauritius is good. The telephone system seems to have relatively easy access to New York and London, while FAX and TELEX are readily available. Moreover, Mauritius is a member of the SWIFT international financial message network centered in Brussels. Thus telecommunications do not appear to pose a barrier to entry and growth.

Quality of Life.

To attract international bankers a high quality of life is essential. While the climate is attractive, the supply of high quality housing, expected by top bankers, appears to be severely limited. In addition the general physical infrastructure of roads and public buildings appears to be poor. This is likely to act as a deterrent to many banks seeking to establish high profile/high quality OSB units staffed by their best personnel.

Given this menu of considerations it is understood that so far 6 banks have indicated a direct willingness to the Central Bank, either verbally or in writing, to establish OSB units. These 6 banks are: MCB, Barclays, BNPI, Bank of Baroda, SCB and South East Asian Bank. However, in order to establish OSB units each (of the two) domestic banks has decided to enter into joint ventures with a foreign partner; thus MCB is courting Credit Lyonnais and SCB the Mitsubishi bank of Japan so as to potentially tap overseas markets using the expertise of these foreign banks. It is also reported that the Bank of China is interested in an African presence and might consider an OSB in Mauritius as its base.

The Minister of Finance and the Bank of Mauritius have insisted that they will adopt a go-slow approach such that quality control will become a major consideration in granting licenses. To this end the Minister of Finance has indicated a willingness to

grant no more than 6 OSB licenses in January 1989 -- the proposed starting date for the OSB system. Given that the EPZ company business is likely to be (partially) included in the sphere of permitted activities of the OSB units it is highly probable that far more than 6 banks (possibly as many as 20) will have formally applied for licenses by the beginning of 1989.

What are the Advantages of an OSB Center to Mauritius?

The general political argument made is that the time is "right" for Mauritius to do this. That is, it is a natural stage of financial development to complement its economic development. However, this reason is far to general to have much economic meaning. Underlying this general philosophy that OSB may be good for Mauritius is the following considerations:

Job Creation and Human Capital Improvement.

While some job creation and technology (skill) transfer is likely to occur this will probably be extremely small. For example, the maximum employee count for an OBS in its early stages will probably be no more than 6 -- 2 banking officials plus 4 support staff (some of which may be expatriates). Thus 6 OSB units imply at most 36 new jobs and probably far less.

Revenue Creation.

While some revenue will be created from license fees, the most important is likely to come from taxation. However, as noted above, as the taxation rate rises the number of OSB entries and the scope of their activities are likely to fall. One would expect, from other countries experience, that the elasticity of demand to enter as an OSB unit is highly tax-rate sensitive.

Prestige.

Establishing an OSB center may be a way for Mauritius to signal to the outside financial world that it is approaching a stage of mature financial development. If this signal is successful it may have a knock-on effect in attracting other financial service firms such as captive insurance companies (as in the Bahamas) and offshore Investment Trusts (as in Switzerland). This in turn may boost the potential international technology (skill) transfer effects from participating in the market for international financial services.

Overall Assessment.

The effect of establishing an OSB center in Mauritius is likely to be small both in the area covered (regional rather than global), the number of participants, as well as in the scope and scale of operatons (employment etc..). It's most immediate effect is likely to be the transfer of some of the EPZ business from domestic banking to these units. This is likely to have a small but significant pro-competitive effect on the existing domestic banks as well as potentially lowering the cost of foreign currency loans and other fee related services, such as letters of credit, to EPZ companies. However, it must be questionable, if a primary objective of OSB's is to ease access of EPZ companies to foreign exchange, as to whether an OSB system is the simplest and most efficient mechanism of doing this. In particular, it would be far simpler to relax foreign exchange controls and restrictions on EPZ borrowing activities directly.

Leasing.

A fourth area of recent liberalization has been the establishment of the Mauritian Leasing Corporation in 1988. So far, it has issued 26 leasing contracts with a value of 48 million rupees with another 16 contracts in process (worth 22 million rupees) which will be completed over the next two or three months. The leasing corporation has concentrated on equipment leasing e.g. textile machinery and computers to such sectors as EPZ, Tourism, Civil Engineering, Printing and the service sector. Moreover, these leases are all financial leases. This means that even if, due to technological reasons, the lessee wishes to change the equipment he is forced to continue renting the existing equipment under the terms of the lease (i.e. until scap date).

Will Leasing Grow?

There appears to be a good future for leasing in the Mauritian economy. One major reason is that, unlike the U.S. where all tax benefits accrue to the owner of machine (the lessor or leasing company), in the Mauritian case all tax benefits accrue to the lessee. Moreover, these tax benefits are considerable. Specifically, there is a 50% Capital allowance in the first year, a 20% Investment allowance in the first year and depreciation usually at the rate of 10% - 15%. This means that up to 80% of the capitalized costs of the lease can be written off against tax in the first year. As a result this tax shield far exceeds gross rental payments in the first year of the lease. The net effect of this is that while the leasing corporation charges between 14% and 18% gross

rental fees compared to prime bank loan interest rates of 11 1/2%, the after-tax cost of using leases is cheaper for those corporations who pay the full corporate tax rate. The only firms for which leasing is less attractive on an after-tax basis appears to be the EPZ firms, who are already paying zero or low (e.g. 15%) tax rates on profits. The comparative advantage of the leasing company over banks in financing is also enhanced by the fact that it doesn't operate under a banking license. Thus, it is not subject to the explicit credit ceilings of the Central Bank nor reserve requirements that increase the bank's effective cost of funds. In addition, whereas banks require over collateralization, and will not finance the full cost of purchasing a piece of equipment, the leasing company, by definition, provides 100% financing often over a longer interval (up to 7 years in many cases.)

How is the Leasing Corporation Financed?

Since it is not a bank it cannot issue deposits. However, it does have lines of credit with MCB (that owns 25% of its stock), BNPI (owns 25% of its stock) and SCB (owns 25% of its stock).[9] Nevertheless, despite these credit lines its major source of finance, and an associated additional financial innovation, has been the sale of its first (and the country's first) publicly offered corporate bond issue. This was offered to the public in September 1988 with an issue size of 75 million rupees. The public was given 6 months (i.e. until March 1989) to subscribe. The maturity of the bonds are 5 years with coupons of 11.50% paid semi-annually. So far only 30 million has been subscribed for. The reason for this low number is three fold: (i) the low coupon interest makes them unattractive to the household sector when compared to 14% savings bonds, (ii) the interest rate is approximately comparable to the rates earned by financial intermediaries on Treasury Certificates (but without the explicit government default guarantees) and (iii) insurance companies were uncertain as to whether the Commissioner of Insurance would rule them eligible investments -- this confirmation only arrived on the 24th of November.

Despite these problems, this issue of corporate debt is important, because these bonds are also transferable (minimum lot 10 units of stock or 10,000 face-value rupees)

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[9]The remaining 25% is split between DBM (10%) and SIC (15%). Thus the "government" ownership in the MLC is 50% equal to 25% SCB plus DBM (10%) plus SIC (15%).

and they provide another potential new listing on the Port Louis Exchange.

Overall Assessment.

If the MLC can overcome its financing problems e.g. by issuing debt at more attractive rates, it should provide a valuable alternative financing tool for companies constrained by lending ceilings and credit rationing at their local banks.

Mauritius Housing Corporation Savings Bonds.

A fifth innovation has been the proposed issue of MHC Savings bonds. Under this scheme an individual will invest a minimum of 100 Rupees a month for a period of between 6 months (minimum) and 10 years maximum. Interest will be compounded monthly at 9% per annum (or 3/4 of 1% per month) if the individual intends to use these bonds as a pure savings vehicle, e.g. at the end of 10 years withdrawing the funds to buy consumer goods or to redeposit in a bank. As Table 3 shows the investment of 100 rupees a month (the minimum) produces a lump sum of 19,497 rupees at the end of 10 years. However, if the individual plans to put the funds towards purchasing a house and proposes to use the accrued amount as a down payment the individual gets a 3% per annum interest bonus (i.e. the investment is compounded at 1% per month or 12% per annum.) In the case of a downpayment the MHC will loan the rest under one of its four mortgage lending schemes. Table 3 shows that the final accrued amount in this case to be 23,234 rupees per 100 rupees invested monthly over 10 years. It should be noted that these bonds are also tax-free.

It is anticipated that the scheme should start either in December or, at the latest, January and the forecast minimum subscription is 1 million rupees a month or 12 million rupees a year. The popularity of the scheme is likely to be moderate: (i) because the rates offered are unattractive compared to the Bank of Mauritius savings bonds (and a new issue of these is currently anticipated) and (ii) it is estimated that some 65% of Mauritians already own their own homes -- which is a significant proportion by international standards.

Overall Assessment.

The issue of MHC savings bonds is a useful financial innovation and should mobilize some savings (although a relatively small amount) for housing. However, if the proposed new issue of 15% savings bonds were to fail to materalize the flow of funds

TABLE 4. 3:

THE MAURITIUS HOUSING CORPORATION

HOUSING SAVINGS SCHEME

Table showing benefits for each subscritpion of Rs 100 payable at the beginning of each month or at the end of previous month.

Interest as well as Bonus are calculated on a monthly cumulative basis meaning that after the first payment, interest is calculated on capital plus interest for previous month/s.

Interest Compounded Monthly

After Year	Capital	Interest	Total	Bonus	Total
1	1,200	60	1,260	21	1,281
2	2,400	238	2,638	86	2,724
3	3,600	546	4,146	205	4,351
4	4,800	995	5,795	388	6,183
5	6,000	1,599	7,599	650	8,249
6	7,200	2,372	9,572	1,004	10,576
7	8,400	3,330	11,730	1,468	13,198
8	9,600	4,491	14,091	2,062	16,153
9	10,800	5872	16,672	2,810	19,482
10	12,000	7,497	19,497	3,737	23,234

into these MHC savings bonds could be quite substantial.

Conclusion and what needs to be Liberalized in the Future.

For a country that has suffered under a highly restrictive financial system for so long the recent list of reforms and innovations is quite extensive:

- Interest rate deregulation
- Central bank savings bonds
- Stock Market Reform
- Offshore banking
- Leasing
- Corporate bonds
- Housing Corporation bonds

However, this is only a first-step in the right direction. As already discussed earlier a major barrier to true competition remains in the form of credit ceilings and credit guidelines buttressed by bank market concentration. For Mauritius to truly take a major step towards an efficient and competitive financial system the Minister of Finance and the Central Bank have to recognize that it is highly inefficient, and a drag on real economic growth, to use the banking system to tax and subsidize various industrial sectors of the economy. If it is indeed desirable to subsidize one-sector rather than another, it is a more efficient to offer direct fiscal or tax incentives and subsidies rather than using the private banking system as an indirect mechanism for this process. Ideally, the long-run liberalizing objective of the Central bank should be to move towards a monetary policy based on reserve (cash) base control and to target monetary aggregates, rather than continuing with one based on the "cost and availability of credit." To this end the Central bank needs to reform the Treasury bill market by issuing (new) bills through the auction process described earlier. Once this is done a secondary market should be encouraged using either designated brokers on the stock market to create a market in bills or less dramatically encourage banks and other financial institutions to trade bills among themselves and with outside holders. Once such a market is developed the potential for Open Market Operations (OMO) will exist. Under such a monetary control system the Central bank would compare bank reserves,

over the reserve accounting period, with target reserves. If it believes that the path of reserves is in line with its M_1 (and or M_2) targets it can carry out defensive OMO with banks and bill brokers on the stock exchange to smooth out the reserve path. This may involve short-term buying (selling) bills under (say 2 day) repurchase agreements. Alternatively if the Central bank believes that the reserve path is too high (or low) compared to that consistent with its M_1 or M_2 targets more aggressive open market operations can be carried out. This might include (under a restrictive (OMO))selling bills out of the Central banks' portfolio to bank's or to brokers on the stock market or even increasing the weekly supply of new bills offered for sale.

It might be argued that such a system would be impossible to introduce in Mauritius given its history of the "credit-control" approach to monetary policy. However, it might be noted that a number of other former British colonies are in the process of freeing themselves from the yoke of the credit-control approach, most notably Kenya which has already started auctioning bills and bonds and is in the process of setting up an Open Market Committee all in the space of 2-3 years.

It is recognized in this report that recommendations such as abolishing credit controls may be perceived as politically unacceptable. If this is so then a second best solution would be to abolish all credit guidelines for EPZ (tier 1) and import substitution (tier 2) companies while leaving a ceiling in place for the trading (tier 3 sector).[10] This would provide a greater degree of competition among banks for EPZ and import substitution company loans while at the same time have the "desired" effect of constraining the finance of imports and their adverse impact on the Balance of Payments.

To any extent it is believed that credit control's are an undesirable and cumbersome means of subsidising/taxing different sectors of the real economy and in the end can only act as a constraint to a country's medium-term economic growth by inhibiting proper competition for finance. Moreover, it seems paradoxical that a country which actively promotes capitalism and competition in the industrial sector should seek to suppress full competition in the financial sector. Thus a more coherent medium term

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[10]This ceiling would be allocated among banks in inverse proportion to their size.

strategy requires a significant modification to the system of credit and monetary controls, on the lines suggested above, along with some direct relaxation of foreign exchange controls rather that placing a considerable reliance on OSB's to provide the necessary degree of foreign currency finance to EPZ companies. In particular, EPZ companies might be allowed to directly borrow foreign currency either from domestic banks or on the euro-markets. This would serve to introduce an added degree of competition in the domestic banking market. Indeed, medium-term policy coherence logically suggests that liberalization of foreign exchange controls should precede, rather than follow, the establishment of an OSB center.