The Enhancement of the Caribbean Securities Markets

by Jonathan Miller

Paper presented at
The Conference on Financing Development in the Caribbean
Sam Lord's Castle, Barbados.
December 4 to December 8, 1989

CONFERENCE ON
FINANCING
DEVELOPMENT
IN THE CARIBBEAN

The Conference on Financing Development in the Caribbean is sponsored by Commonwealth [illegible]

THE ENHANCEMENT OF THE CARIBBEAN SECURITIES MARKETS:
Agenda for Development of National and Regional Markets

(A paper commissioned from Mr. Jonathan Miller, Consultant, by the Economic Affairs Division of the Commonwealth Secretariat for the Project on Financing Development in the Caribbean)

Economic Affairs Division
Commonwealth Secretariat
Marlborough House
Pall Mall
London SW1Y 5HX

June 1989

Table of Contents

THE ENHANCEMENT OF THE CARIBBEAN SECURITIES MARKETS: Agenda for Development of National and Regional Markets

Introduction - Stocks first, Markets afterwards

Improving the mobilisation of savings to finance the economic progress of the Caribbean area through the medium of a free financial market requires:

(a) a supply of attractive investments,

(b) availability of professional investment advice and fund management skills, and

(c) operational facilities for the investment markets, including regulation and surveillance.

These conditions are inadequately fulfilled by the existing markets in Barbados, Jamaica, and Trinidad & Tobago. Many explanations may be advanced for their limited development; there is a problem of scale; there is the historic record - in Jamaica and Trinidad - of economic recession and market relapse; there is the failure to integrate the bond market with the equity market; there is (in Jamaica) unfavourable tax treatment of equity investment; there are exchange control regulations inhibiting overseas investors from bringing capital to the region; and there are a variety of technical impediments to enhancing the depth and liquidity of the markets.

There are as many possible remedies as there are perceived shortcomings, but this report contends that the fundamental problem is strategic. The stimulation of the capital market has been taken as a government role in all three territories; the instruments chosen to impart the stimulus have been the stock exchanges, again in all three territories; and the stock exchanges have been endowed with quasi-governmental standing, under the wings of the central banks.

What is required is a different strategy which concentrates on the creation of financial instruments with public appeal. The objective must be for more demand-led growth in financial market services. All other considerations should be subordinated to this end which is not only the proper goal for stimulating the real economy, but also a yardstick by which to assess the seriousness of the existing deficiencies in the monetary system and against which to test proposals for innovation or reform. Such a strategy also has the merit of being testable. If people do not subscribe it has failed. If they do subscribe, however, not only has it succeeded in itself, but also it will bring vibrancy to the stock exchanges through the encouragement it gives to the financial services sector.

On this view the catalyst for securities market development is not the operational facility offered by exchanges, but the commercial thrust of profit-seeking fund managers and promoters. Some parallel may be drawn with the emergence of the eurodollar bond market which has been primarily a new issue market tapping the pool of investible funds in non-US hands and which - apart from the observance of listing formalities - has operated largely independently of the European investment exchanges.

The Caribbean region lacks the equivalent to the eurobond - the instrument for which there is sustained final demand. It also lacks the intermediaries within the local stockbroking communities with the resources to create and manage a new segment of the capital market.

Prima facie, the sort of financial instrument appropriate to the suggested requirements should have the following characteristics:-

a) a predominantly equity character, so that it can support investment in risk assets and offer commensurate rewards.

b) good and politically independent management

c) sufficient size to be readily marketable and to warrant the management resources committed to it

d) a reliable and continuous after-market on which new subscribers can buy stock and existing ones sell it.

e) lack of fiscal and exchange control impediments to international subscription

f) capacity to be adapted to changing practices in securities markets

g) capacity to be adapted to regional financial needs for cross border investment.

Self-evidently such an instrument would need to be associated with a collective investment scheme - mutual fund, unit trust or investment company (possibly similar to those through which foreign investors were afforded access to the South Korean market or to a venture capital fund).

There are already suggestions for some form of equity development fund, linked to securities markets, which could well be consistent with what is being suggested here, but there are many potential variations, especially in the management structure.

The essence of this proposal, however, is the intermediation of equity investment (a) to allow for issues to be in big enough volume to allow for marketability and (b) to inject an additional layer of management skills and resources into the region's financial community.

If independent, commercial management is to run the scheme or schemes that issue the new security then the role of the authorities would be relatively passive. They would have to create the legal and regulatory framework, including some standard documentation, they would have to sell the idea to prospective managers and they would have to see that there were enough new investments coming forward, whether by issue of equity in existing businesses or by new ventures, to justify the fund launch.

Equity Fund Scheme

By way of illustration: the Jamaican government might propose a fund to be called First Jamaican General with the various tax and foreign exchange features suggested below, and invite international banks or investment houses to submit proposals for its management. One would be chosen and given responsibility for the fund on a normal commercial basis. Subsequently, when the market could absorb it, a Second Jamaican Fund might be launched, with another manager, competing with the first and, ultimately, the award of new funds could be made on the basis of the achievements of the existing ones.

In promoting an Equity Fund, the authorities would have to strike a balance between being sufficiently specific in its definition to allow for the necessary regulatory, legal and other arrangements to be readily applicable, but sufficiently general to allow the managers to be innovative and to adapt the product to back their perception of the public's needs.

The most important feature of this proposal is that there should be a number of different funds, run by different international managers competing with one another. Some of the managers should be overseas investment houses already involved in local finance. Such firms would have an incentive to participate and could well find a regional fund useful as a source of local capital in project finance. They would also be likely to be non-collusive in competitive bids or in responding to tender offers.

The formal structure of the funds should be like that of a UK unit trust, constituted under a trust deed and with an independent trustee responsible for safeguarding unitholders' interests. In most cases the managers should buy and sell units in order to meet criterion (d) above, but the permitted spread between bid and offered prices would be for negotiation with the regulatory authorities in the light of the nature of the underlying investments. There could be some funds which were initially unrealisable by reason of the nature of their investments.

Initially the funds would be associated with individual countries in the area and their units would be priced in the local currency - on the grounds that the assets behind them would be local assets; but realisation proceeds from sale of units should be convertible into other currencies (either any currency or, possibly, another Caricom currency). If convertibility is not provided it will be difficult to flush out the savings which may be presumed to be lying in illicit hard currency assets. The funds should also be saleable to non-residents, including the large expatriate community.

So far as exchange control is concerned, investment in the funds could be limited in the same way as the travel allowance to so much a year and varying territory by territory; they could and should be made eligible investments for blocked balances. As a further refinement, investment in them could be intermediated by insurance companies, pension funds and other institutions - with no limit where payment was effected out of overseas currency - with the object of enticing illicit balances back into the formal economy.

An additional, and most important, reason for encouraging intermediated investment in the funds is that the institutions are characteristically able to "market" investments through advertisement and direct sales in a way that the fund managers cannot if they are to keep their costs down within acceptable limits. This is because the insurance company or pension fund can "bundle" the investment benefits of the fund with, say, life cover in respect of which he can pay a sales commission.

The funds should be fiscally transparent so that there is no relative disadvantage to investing through them rather than investing direct in underlying securities. This should apply both to income tax and stamp duty.

The investment policy of the funds would be for the managers to determine. Some might concentrate, say, on subscribing for privatisation issues, others on new ventures, or development capital opportunities. They could invest in bonds - most probably as a yield sweetener to enhance their dividend paying capacity.

The funds and the exchanges

It is envisaged that the funds would be vigorous users of the stock exchanges and as such would bring pressure to bear on practical problems.

If the manager of a fund is making a price in his units, based on the underlying stock market asset value, he does not want to run the risk of not being able to deal at that asset value. Thus, if a fund's investments are worth $1.25 a unit and the manager is bidding $1.23 for any units that his unitholders wish to sell he wants to be able, if redemption is necessary, to be sure that he really can liquidate his underlying portfolio at $1.25 to cover the cash cost of the units he has purchased. (The difference between his bid price and the underlying bid price (in this case 2c) is one of the ways in which the manager is rewarded for his efforts.)

The funds and the regional market

Receipt of cash, issue of units and payment of dividends would be the responsibility of the fund managers either operating their own registrars' departments or contracting with an independent registrar. Either way offshore fund managers should be independent of the local exchanges so far as dealing in their own units is concerned, able to accept payment in any currency - subject to evidence of exchange control clearance where applicable - and deliver units in any territory. This would create the operational facility for funds to be subscribed in one country and invested in another to the extent that the authorities permitted. For example, a Canadian fund management entity registered in the Netherlands Antilles, might issue J$ denominated units against a TT$ subscription. The degree to which the Canadian entity became exposed to currency risk would be for it to assess, though its obligations would have to be clearly spelt out in the fund documentation.

A further development, once exchange control became liberalised within the region, would be the development either of multi-country funds invested directly across a range of territories or of multi-fund funds invested indirectly across a range of territories - rather on the pattern of the "unitised" fund portfolios offered to pension schemes in the UK through which the scheme managers can vary the asset mix of their portfolios: so much in overseas bonds, so much in domestic equities and so forth.

The key operational feature of this proposal is that multi-currency settlement would be conducted by the management entities, not by the local exchanges for whom creation of the appropriate facilities and recruitment of the appropriate staff might be difficult to justify.

The implementation agenda

1. Development of a fund system such as proposed depends on the underlying markets being timely on settlement and registration. This is not the case in Trinidad and Jamaica and consideration should be given to radical improvement. One possibility would be to make the maintenance of the register of a listed stock a Stock Exchange responsibility and for that to be a condition of listing. This would not only provide the means to improve the timeliness of transfers and registration but also pave the way for introducing a "dematerialised",

paperless, settlement system.

2. Legislation on securities and company law has been proceeding independently in a number of territories in the region, which appears to be undesirable, both because it duplicates effort and because it could hamper the harmonisation and integration of the securities industry in the future. Consideration should be given to the models developed by the Caricom secretariat with a view to establishing a common basis, and thence a "single passport" approach to the authorisation of people to conduct investment business within the region.

3. Throughout the region, there are substantial volumes of government debt outstanding, but only primitive levels of market activity and those unconnected with the Stock Exchanges. Renewed efforts should be made to provide training in the management of bond portfolios and to move bond trading on-exchange. In Trinidad this is thought to require an amendment to the law.

4. It should in principle be possible to run multi-currency securities settlement within the individual countries based upon external accounts and "investment currency" balances, but it is hoped that the fund proposal would remove the need for doing so at this stage, since dealing in the units would be conducted by the managers. Procedures would nonetheless have to be established to regulate the outflow of foreign currency on redemption of units accompanied by liquidation of the underlying investments.

Let it be assumed that subscriptions to the various territory funds are applied in the currency of those funds, but that the managers accept on application other currencies and convert them to the subscription currency on the applicants' behalf. Let it further be assumed that when a unitholder realises his investment, the manager, in the first instance, generates a balance in the currency of the fund itself and then, if the seller wishes, converts it into another currency. There would need to be a record for exchange control purposes of the originating currency and the destination currency so that the authorities could avert the use of the fund as a foreign exchange loophole. In structure these transactions are very similar to what happens already with purchases of securities with foreign currency, but there would need to be special arrangements for the funds because they are intermediated and their currency requirements would be the net balance on their transactions, not the gross totals.

If a fund manager were matching realisations of units by holders who wanted to convert the proceeds into foreign currency against purchases by new buyers who wanted to apply from foreign currency, there would be no impact on the exchange equalisation accounts. Presumptively, too, because Caribbean investors are inclined to buy and hold, there would tend to be a net inflow of currency rather than outflow. Nonetheless, formal arrangements would have to be in place to avert unanticipated net outflows, for so long as exchange controls remained in force with respect to the currencies concerned.

Appendix

Some background notes on The Establishment of Securities Markets [with special reference to the Caribbean]

SUMMARY

The initiative to create a stock exchange in a developing country is usually directed at the creation of central securities market. An exchange itself is no more than a dealing facility and associated regulations, and as such may be, and often is, a very modest enterprise. But an economically effective securities market is a much more substantial matter, requiring a wide measure of public participation. Accordingly, a plan to develop an exchange must be accompanied by a strategy for the creation of a financial market. Section 3.00 of this report recites in general terms the functions performed by a central market and its institutional requirements.

Once properly established a central securities market brings a range of benefits in providing secondary market facilities, for dealing in existing stocks, as well as encouraging the provision of primary capital from domestic and overseas sources for subscription to new stocks. A central market also, by the concomitant development of a financial services sector to support its operations, brings new employment opportunities, new skills and new technical facilities to its home country.

In the Caribbean, three exchanges provide dealing facilities and a fourth is planned, but none as yet serves a developed securities market. A federation

of the exchanges with unified listing and settlement facilities is envisaged as the means by which to achieve this for the whole region. The Caricom enterprise regime is a partial step towards integration.

Section 6.00 examines the characteristics of stock exchanges and identifies the facilities and regulations that may be deployed to extend a dealing exchange's function to encourage a full scale capital market. These comprise institutional arrangements to promote depth and liquidity,(covered in section 7.00) and disclosure requirements to ensure that market users are properly informed. (covered in section 8.00)

Disclosure arrangements extend beyond the Company law which governs the obligations of companies towards shareholders generally to ensure a complete, timely and truthful flow of information to the financial markets. Prospectus and anti-fraud provisions are statutory; listing requirements are sometimes statutory and sometimes by self-regulation. Insider dealing law is associated with disclosure provisions, but is generally ineffective; a voluntary Takeover Code is better, but limited in ambit. Market efficiency also requires, however, that regulation on the abuse of information does not impede the flow stemming from legitimate enquiry and analysis.

Consideration of the establishment of a federated or unified Caribbean Stock Exchange, in section 9.00, prompts a reappraisal of the meaning of central market when it is composed of a number of separate exchanges. The conclusion is that there is unlikely to be an improvement in centrality in respect of price dissemination, but there would be in order flow, operational efficiency and economic effectiveness - at the cost of a very major and comprehensive programme to reform dealing and settlement systems and to harmonise the full range of regulation.

Whether the Caribbean region is wealthy enough or populous enough to sustain a developed securities market is considered in section 10.00. It should certainly be able to support, as it does, the existing exchanges the costs of which are modest. But the preconditions for an effective regional market have yet to be met through the issue of more securities, the encouragement of active participation in the market and the development of institutional activity.

The creation of a suitable ethical environment for an effective securities market needs to be addressed by (a) harmonisation of the laws with respect to preparation and presentation by issuers of "the true and fair" view of their affairs (section 11.00), (b) appropriate constitutional arrangements for the operation of the Stock

Exchange and a Securities Commission (section 12.00), and (c) wholesale liberalisation of the legal framework within which securities business is conducted, both to make it easier and to promote higher levels of compliance.(section 13.00)

FINANCIAL MARKETS - DEFINITIONS

Market carries an economic meaning and an institutional meaning. In this report where the context does not otherwise make it clear, a market in the economic sense is referred to as "an effective market". Such a market is constituted by parties to a transaction having regard to the terms of preceding or current transactions in comparable assets, which are being contemplated or have been effected by others. A market is thus a social phenomenon (whether institutionalised or not) whereby price formation is subjected to plurality of decision. To meet the economic objectives ascribed to the development of stock exchanges, however, an effective market must also be an "efficient market" (see 3.04).

The three tests for the existence of an effective market are (1) the presence of buyers and sellers, (2) sufficient continuity in the flow of transactions for past prices to be regarded as relevant to current transactions, and, (3) some availability of information about transactions to other market participants. A display of bid or offered prices without a flow of transactions would not constitute a market. A one-off event like an auction is not a market. A flow of secret transactions is not a market.

A central market, is not necessarily an effective market, but is a mechanism for identifying and informing buyers and sellers. It may be formally constituted. it may exist simply by convention, or it may be created by a licencing system which limits the conduct of certain types of business to a relatively small number of authorised persons.

Originally, central markets were physical marketplaces where would-be buyers and sellers congregated to transact business. Latterly central markets have tended to "dematerialise", substituting the broadcast of price information over computer networks and the telephone line for the facilities of the market floor. Accordingly a central market now should be defined as one in which information is unified so that a market user can have access to it from effectively any "one-stop" source, embracing both the market floor and the screen-accessed database.

Central market functional definition. All Stock Exchanges are central markets in the sense that they provide a locus for dealing activity which would otherwise take place bilaterally or casually through the agency of scattered intermediaries. There is, however, no consensus on what functions a Stock Exchange needs to perform centrally in order to preserve the centrality of the effective market. (This issue is of profound importance to the securities industry internationally and of particular importance to plans for unifying or federating disparate exchanges such as those in the Caribbean.)

Any central market must perform four functions.

(a) price dissemination

(b) order routing to bring buyers and sellers together

(c) dealing

(d) confirmation and clearing

Centrality in the process of price formation in the market requires that deals between any set of counterparties must be effected in the knowledge of the prevailing quotations, order flow or transaction flow elsewhere. The nature of the price information varies from exchange to exchange according to the dealing system used. All exchanges have some means of publishing prices. Some run their own screen display networks. Some rely wholly on commercial "quote vendors" to distribute prices on-screen. How much control an exchange needs to have over the distribution system to preserve the integrity of the market is an unresolved issue.

Centrality is achieved in some markets by endowing the exchange with a monopoly in dealing in specified securities, requiring all orders to be routed through its members. Order routing thus embraces the acquisition of an order from the ultimate investor, initiation of deals by professionals within the market system, and the passage of those orders and deals to an appropriate counterparty. The greater the universe of order-givers in the system, the better market liquidity should be because the better the chances of spontaneous matching of buyer and seller.

Without external sanction or regulation order flow becomes increasingly decentralised. Securities firms may match one customer's order with another's in-house or they may deal off-exchange with another securities firm. In the United States there are computerised dealing agencies which match customer's orders one against the other on the basis of the best prices on the consolidated display of on-exchange transactions. This is "parasitic" dealing in that it uses third party information without contributing its own, to the detriment of the quality of price formation.

A central market does not necessarily imply centralised execution of transactions. In open outcry markets activity may have to be restricted to the floor, but that is a function of the particular method of dealing, which requires the "crowd" of dealers to be gathered together "downstairs". In other markets in place of the crowd there are dealers in "upstairs" offices. Either way, trading is a multilateral process which - depending on the market concerned - may be (a) completely unrestricted or (b) channeled through market makers, specialists, "hoekmen", "saitori", or the like, or (c) centralised through an automated execution system which provides a single path between counterparties and automatically strikes the bargain between them.

Many central markets provide confirmation and settlement facilities, because such provision is commercially attractive to the management of the exchange and its members or because it is necessary to the confidence of the public and participants themselves. The components of a settlement system are (a) the record of legal ownership, (b) the means of changing the record to reflect transactions and (c) the means of payment. Associated with settlement is a tail of obligations to ensure that benefits, that is to say dividends and other entitlements, pass as necessary from seller to buyer when they are received after the transaction has gone through.

In options and futures markets where the instruments traded are extremely volatile the very existence of the market depends on the existence of a clearing house of high financial standing which adopts the bargains once they have been confirmed and to which participants have recourse in the event of default by the clearing broker immediately responsible for the bargain.

An efficient market is a term of art in Modern Portfolio Theory. It is a market in which all the available information relevant to the securities being traded is known to sufficient participants for it to be reflected in the prevailing security prices. Not all financial markets are efficient, but in those that are: (1) it is impossible to profit from possession of information that is already available - only new information will move prices; (2) efficiency is maintained by diligent enquirers profiting from the acquisition of new information.

An efficient market should be a perfect market concerned is complete, as it is with risk-free, fixed coupon, dated, government securities - and provided that the government is not, by monopoly market power prejudicing perfection. Where possession of all the available information still leaves a residual uncertainty about the expected rate of return on the asset (for instance because it was the obligation of an unreliable government) then the homogeneity requirement for a perfect market would not be satisfied because investors could not be sure how far one asset was truly substitutable for another.

An efficient market demands a central market mechanism unless the number of participants and the range of assets traded is so very small that all participants can confidently expect to have equal knowledge of third party transactions.

A deep market is one in which temporary surges in orders may be readily accommodated, either through changes in market makers' holdings or through rapid identification of matching counterparties. In a deep market large volumes of stock may be bought or sold without incurring a size premium in the cost of dealing (e.g. through a substantially bigger bid-offer spread). A market lacking in depth will be excessively volatile and hence inefficient because it lacks the capacity to cushion random shocks and instead moves prices to correct technical imbalances on traders' books rather than to reflect new information. Market depth is thus very much a reflection of the capital strength of the market intermediaries and those speculators who stabilise the market by buying low and selling high.

A liquid market is often defined very similarly to a deep market, in having the capacity rapidly to absorb buying and selling orders, but "depth" and "liquidity" are used as if they had different meanings. Depth clearly relates to transaction size, liquidity may not extend so far. Liquidity is thus a necessary but not a sufficient condition for depth.

A capital market is not an institution, but a form of words describing either the provision or the institutional providers of all forms of commercial financial capital. Sometimes used as a synonym for the securities market, it is more usefully defined to include leasing, guarantees, primary venture capital, banking facilities and risk management as well as marketable securities. On this broader interpretation it is the universe in which all financial assets exist and through which capital flows pass.

A securities market, usually describes a market formally established by some regulatory or constitutional arrangement in which transferable securities are traded. It thus includes both stock exchanges (see below) and markets - like the UK wholesale market in short term money market instruments - which exist as identifiable, regulated entities, but which are not formally constituted.

Strictly, securities are documents of title, but securities markets may also trade in other financial instruments, such as index options, which are not technically securities. W.F.Sharpe offers the definition: "a legal representation of the right to receive prospective future benefits under stated conditions." ["Investments", Prentice Hall, 1985]

From a regulatory standpoint the definition of securities is important because it may delineate the domain within which securities law operates, but from the practitioner's standpoint it is not critical.

Reconciliation of portfolio preferences. Suppliers of capital and users of capital have different objectives in terms of the risk they wish to bear and the period of time over which they wish to bear them. Individuals build up savings during their working lives to spend when they are retired. At first they will be satisfied by longer term higher risk savings instruments, but when old they will want those that are secure and short term. On the other side, the issuers of the securities in which the saver invests usually want to borrow or acquire money for the longest possible term. The financial markets provide the means for striking a balance between this conflict of objectives. The price structure for securities gives the basis upon which issuer and subscriber can make a decision. The liquidity of the market provides the short-term investor with an exit route from long term investments.

Secondary Market Trading Even where there are no new issues at all, a financial market serves an important economic function in allowing holders of existing financial assets to alter their portfolios. Older savers, for example, may sell their longer term higher risk paper to young savers and apply the proceeds to buying short term low risk paper from deceased estates. The secondary market both enhances the freedom of choice of individuals and provides a pricing mechanism which can be used elsewhere in the community, for instance as a reference against which to measure projected returns on direct capital investment by industry and commerce. In the absence of a secondary market there would be less demand for primary issues because subscribers could have no confidence in being able to cash them in before maturity. They would demand a higher return for illiquidity and by, the same token, the cost of capital to issuers would be higher. Illiquidity also diminishes the credit capacity of investors because lenders will more readily make advances against assets that are immediately realisable than those that are not.

Provision of primary capital. Although the provision of capital for direct investment in the economy is the argument most commonly put forward in support of the operation of securities markets, it is not essential, as is evident from the preceding paragraphs. Britain and Japan may have financed their economic take-off internally, but the US, Russia, Sweden, Canada and the NIC's have had substantial recourse to foreign capital. It is also a commonplace that the stock market has played little part in the funding of US, or for that matter UK, industry in recent times.

For the less developed countries in the Caribbean region there seems to be a financing gap for development capital for companies too small for listing if there were an exchange, but above the limit for development capital activity. To justify the establishment of a securities market on the grounds of its sourcing primary capital for the private sector might, therefore, be incautious; but it can certainly be justified on the grounds (1) that it affords the possibility of funding intermediary development companies, and (2) that it provides the means for the successful entrepreneur to cash-in - an important incentive.

Execution of monetary policy. The ability of governments to correct monetary imbalances or otherwise manage their economies through open market operations to complement the other instruments of monetary policy is clearly enhanced by the existence of an effective, central, securities market.

High personal liquidity is a characteristic of many developing nations (as it was of pre-industrial Europe). Sometimes it reflects large scale evasion of tax and exchange control regulations. Sometimes it reflects the savers' perception of the government. Sometimes, and not uncommonly, it reflects sheer absence of portfolio investment opportunity. Whatever the reason, it may represent a potential hazard to the operation of the economy through, for example, the excess demand created by dishoarding.

Wider Share Ownership Disposal of ownership in publicly held entities to the general public has been extraordinarily popular from France to Chile and from Jamaica to the UK. So long as governments and voters wish it to continue, it constitutes a powerful motive for developing securities markets.

Allocative efficiency. The operation of a financial market can allow for idle balances to be better employed, either directly or through intermediation. By providing the means for capital to be better rewarded it can stimulate additional saving which may enhance economic growth. Fostering the development of efficient financial markets can make for rational pricing of capital to the business community and hence optimal allocation of funds.

Externalities The establishment of an effective securities market has to go hand in hand with the development of the financial services sector of the economy in terms of skills, training, provision of new services to the public and demand for additional services from the professions. It is not in itself the function of a market to promote such things, but they are a desirable and incidental accompaniment to its success.

In the context of a regional Caribbean exchange, Dr Courtney N. Blackman has observed: "Valuable externalities would also derive from a Caribbean Stock Market. First of all, we would develop a substantial, new and region-wide service industry employing stock brokers, accountants, lawyers, securitities analysts, fund managers and a variety of administrative, technical and clerical staff...Secondly, a viable stock exchange would considerably increase the investment options of regional life insurance companies, pension funds and unit trusts, which traditionally invest in equities but have few opportunities to do so in the Caribbean. Thirdly, the emerging middle class...would have [other] investment opportunities ...and West Indian nationals living abroad would have alternative avenues for investment at home..." ["Towards the Integration of Caribbean Stock Markets", p.18, Dr. C.N. Blackman, Caribbean Community Secretariat, March 1988].

FINANCIAL MARKETS - CARIBBEAN OBJECTIVES

Within the Caribbean area, developed financial markets are to fulfil additional and specific regional functions.

Implementation of the Caricom Enterprise Regime. Companies registered as Caricom Enterprises are to have the same rights of operation and establishment in all Caricom territories, including the ability to raise money from the capital market in one member for use in another. The Regime is aimed at bringing benefits to certain key sectors the resource requirements of which cannot be provided by a single economy. In particular, "...the contraction of intra-Caricom trade has underlined the urgency for Caribbean manufacturers to break into the extra-regional markets. This will require the emergence of enterprises able to pool the financial resources of the entire region and to draw on a much wider variety of human skills and commercial experience than is available in any one member state of Caricom. This, in turn, would dnecessitate a substantial deepening of the regional integration process, of which a Caribbean Stock Exchange would be an important element." (Dr Blackman op.cit.]

Attraction of foreign portfolio investment. An identifiable securities market can provide a focus for foreign investors, acting as a feeder into the world capital market, "...a vibrant Stock Exchange...serving as a magnet for investment both from within and without the region." [Dr Blackman, op. cit.]

STOCK EXCHANGES - GENERAL CHARACTERISTICS

A stock exchange is a formally constituted institution that exists to enhance the operation of a securities market. The "irreduceable components" which characterise an exchange have been held to be (1) the definition of what can be traded, (2) the agreed method of trading, and (3) the establishment of who is to be admitted to the exchange. [Pen Kent, "Central Market and Settlement Systems", Bank of England, 1989]. In fact there is very little uniformity in the constitution or functions of the world's exchanges, or in the degree to which they provide institutional arrangements for performing the the central market functions, identified in para 3.03.2 of price dissemination, order routing, dealing, and settlement.

Dealing-only Exchanges. Many small exchanges serve little more function than that of bringing dealers together and providing for an orderly process of agreeing bargain prices. Such exchanges as often as not emerged spontaneously on the initiative of merchants or businessmen and without any formality. Such entities are not supporting a true "market" as defined in para 3.02 because there is insufficient continuity of dealing for there to be any necessary linkage between the price at which one bargain is struck and the price obtained for the next one. Although such an entity may be called a Stock Market it is no more than a dealing facility.

Quote-driven and Order-driven Markets. Paragraph 3.03.2 identified price dissemination and order-routing as the first and second functions of a central market respectively. In practice, securities markets fall into two classes, "order-driven" or "quote-driven".

In an order-driven market the dealing process is initiated by the investor or his agent bidding or offering stock in the market. In some markets this bid or offer, if unsatisfied, will be held in a public order book, and will be executed against the first matching bid or offer coming the other way. Price visibility in such markets is afforded by publication of dealing prices. In some bourses there is just one price struck during the dealing session at which all expressed orders are transacted. Where there is a stream of transactions at varying prices, trade publication has to be by way of a continuous "ticker" display. The conduct of business in such markets is controlled or supervised by a market official or by a designated "specialist" or analagous member of the exchange.

In a quote-driven market the dealing process is initiated by a market maker making a price in a stock which attracts investor business. There is usually more than one market maker in a stock so that there is competition on the prices they make. Price visibility is afforded by publication of the quotations. In some markets there is trade publication as well but it can inhibit the willingness of market makers to bid vigorously because the trade report can be interpreted together with the preceding price quotations to identify who has dealt and make him vulnerable to the tactics of his competitors or knowledgable investors.

There are many significant operational differences between quote-driven and order-driven markets, but there appears to be no significant difference in the quality of pricing, at least in liquid stocks. This is surprising because a quotation is before the event and a trade report is after the event. It might be expected that quotes would tend to move more violently in uncertain times as market makers attempted to move their quotations fast enough to stay out of trouble, but an analysis of the FTSE 100 share index during "black Monday" in October 1987 revealed no significant difference between the values recorded on the basis of market quotations and the notional values that would have been achieved on the basis of the published trade reports for the constituent stocks.

Effective Stock Markets. For the central market operated by a stock exchange to move from being a mere dealing facility to being an effective stock market it must have:-

(a) adequate liquidity and depth, and

(b) adequate information about the securities being traded to operate "efficiently".

Both these requirements have to be met by institutional arrangements and appropriate regulation.

STOCK EXCHANGES - THE PROVISION OF LIQUIDITY

Continuity of Dealing. Effective markets must have continuity of dealing, so that investors at large can have confidence that their financial assets are realisable when they want them to be and so that the prices are constantly tested by the flux of supply and demand. Some markets, like the US Treasury market, the foreign exchange market, and, in part the eurobond market, are naturally liquid, needing no more than a regulatory framework and a code of dealing to be effective. There is enough consistency in the level of final demand and enough assurance of fresh supply for there to be no need for an exchange. Where, there is insufficient natural business, exchanges maintain liquidity by institutional arrangements the effect of which is to create a buffer associated with the central market to cushion mismatches in the flow of business.

Registered and unregistered market makers. The form of the arrangement varies from exchange to exchange but the essential ingredient is a body of dealers who speculate on short term price movements, taking loose stock when it is offered and meeting shortages of stock when it is bid for. In the words of the UK's Financial Services Act 1986, a market maker is a firm which "...holds itself out as able and willing to enter into trtansactions of sales and purchases...at prices determined by it generally and continuously rather than in respect of each particular transaction."

In the quote-driven markets NASDAQ in the US and the ISE in the UK - these dealers are within the market, formally recognised under its rules, accorded certain privileges and subject to certain obligations in respect of commitment to price making. The normal pattern of trade in such markets is for a recognised market maker to be on one side of every bargain.

After the crash of October 1987 and before the Big Bang of October 1986 there is evidence that market making in the leading stocks was unremunerative and had been so for several years before that. This was consistent with the supposition that there was sufficient natural business to make the market maker inventory function unnecessary. By contrast, the net turn on smaller stocks was three times that of the leaders, at approximatelyi 0.3%. Consistent with this, the average gross spread in the large, alpha, stocks in London in mid-1988 was 1.71%, while that for the smaller, gamma, stocks was 5.95%.["Quality of Markets Quarterly", Summer 1988, p.15, ISE.]. The smaller the stock, evidently, the greater the need for the maintenance of an inventory because transactions will be less frequent. By extension, the greater the inventory requirement the greater the risk to the inventory holder both because small businesses are more volatile than large businesses and because the inventory holder's exposure is longer on small businesses.

In order-driven markets some securities houses will describe themselves as market makers. This means that they are holding themselves out to investors as standing ready to deal in the stocks they specify on demand; but they are likely to have to "cross" the business they do on the relevant exchange, which means exposing it to other dealers. By convention such crosses are nodded through. The effect of both market maker arrangements is that if an investor comes to the market with an order which is not matched by another investor with a contra order, then the market maker will meet his requirements, bridging the short or long position book with another investor. In the absence of a market maker system the initiating investor is either left unsatisfied or has to allow his dealing price to move sufficiently to flush out a counterparty, making for illiquid and volatile markets.

Specialist Markets. In specialist markets which are a subset of the order-driven markets maintenance of liquidity is nominally entrusted to specialists, one for each stock but several stocks to each one. Specialists are brokers who run the public order book (that is the record of outstanding orders at limits that remain to be satisfied) in their stocks and earn commission on the resultant deals. They also have a strictly circumscribed obligation, when the spread between highest bid and lowest offer becomes too wide, to intervene to maintain market liquidity by dealing for their own account so as to narrow the spread. They differ from market makers in that they rely for their income mainly on agency business on behalf of others whereas a market maker is a principal acting only for himself.

Work done at the Toronto Stock Exchange indicates that the specialist system is much less capital intensive for the specialist than the market maker system is for the market maker. It concluded that the specialist system is therefore intrinsically much more efficient. The analysis did not, however, consider the part paid by non-registered "market makers"; nor did it explain the success of NASDAQ, a market maker exchange, in winning business from Amex, a specialist exchange.

On-exchange Speculators. Liquidity is also maintained by the operations of independent speculators trading on their own account, most prominently as "locals" on futures and options markets. They are members of the market with access to the trading floor but they are not allowed to deal for anyone else's account and they cannot act as market makers. In the London Stock Exchange, in-house trading by members and employees of member firms, excluding the firms' own dealing as market makers etc., is of the order of 4% of total bargains.

Off-exchange speculators can play a similar role in markets but less visibly and not as members of the exchange. Off-exchange activity takes many forms; it may be "scalping" which is simply short term trading for a small turn; it may be systematic speculation on apparently new information; it may be systematic arbitrage by professional investors either between cash and derivative markets or between comparable stocks in the same market.

Stock borrowing and lending. Market makers and locals cannot fulfil their role of bridging imbalances in business flow unless they, in turn, can have access to additional stock to deliver when they go short to satisfy a buyer and access to cash when accommodating a seller. In London, the lending of stock and cash is undertaken by Stock Exchange Money Brokers; in the US it is undertaken by major securities houses. The operation of the system does requires the cooperation of long term stockholders, like pension funds, who are willing to lend it for a consideration, and also the adjustment of the taxation system to allow the stockborrowers to be fiscally transparent.

STOCK EXCHANGES - PROVISION OF INFORMATION

Control functions. Regulatory arrangements encouraging and controlling the flow of information to the market have two functions.

(a) to ensure that the available information is adequate for the purpose of imputing value to securities, and

(b) to ensure that the distribution of information among market participants is fair.

The first function contributes directly to market efficiency. The second is necessary to maintain sufficient public confidence in the market for outside investors to trust their money to it, without being deterred by the fear that they will always lose out to the well-informed insiders.

Control Sources. The specification of what information should be provided is usually contained in:-

(a) Corporate legislation on company reporting to shareholders

(b) Prospectus provisions in corporate or anti-fraud legislation, stipulating what should be disclosed in respect of a new issue or solicitation of funds from the public

(c) Listing requirements of investment exchanges, possibly in conjunction with registration requirements under securities laws

(d) Insider dealing legislation

Company Law, generally requires submission of audited accounts to shareholders and may specify how they should be laid out and what they should contain in detail. The relevant provisions, particularly with regard to consolidation, need to be reviewed when establishment of a stock exchange is being considered. They also need to be extended by stock exchange regulation so as to be timely quarterly statements. Thus the NYSE listing rules go considerably further than the SEC (statutory) registration requirements which are already comprehensive.

Prospectus Provisions Fraudulent or reckless promotion of new ventures is frequently the first evil which a new exchange has to combat, often because the spirit of economic optimism that gave birth to the exchange stimulates imprudence and knavery as well. Offers for sale to the public or invitations to put money into a business in any form must be strictly controlled if the exchange is not to risk being quickly discredited.

Listing Particulars. In the words of the UK Financial Services Act, 1986, "listing particulars shall contain all such information as investors and their professional advisers would reasonably require and reasonably expect to find there, for the purpose of making an informed assessment of -

(a) the assets and liabilities, financial position, profits and losses, and prospects of the issuer of the securities; and

(b) the rights attaching to those securities."

Insider Dealing. An insider dealing law can be politically potent evidence that an administration is attempting to ensure fairness in the conduct of securities business and proposals in respect of it are often brought forward with proposals for the establish-ment of a stock exchange. While it is vital that confidence in a market should not be subverted by inside trading at the expense of the ordinary investor, insider trading legislation itself has been notably ineffective in those countries which have it and some countries do not accept insider dealing as a crime.

A Takeover Code on the UK model is simpler and more effective, so far as it goes, than insider dealing legislation. Where the Code prohibits dealing in the secret knowledge of an impending takeover, unlike insider dealing law, it does not require either that the knowledge is "price-sensitive" or that it has come from a privileged (or in UK parlance, a "connected") source. This model is worth following within the limits that its sanctions apply to the professional financial community and that they are limited to the narrow area of takeovers and substantial acquisitions of shares.

Legitimate Information All price-sensitive information is, in the public mind, insider information and use of it to make a profit in the market out of someone not in possession of it is seen by some as unfair, offensive and prejudicial to confidence. On the other hand, it is only through the market activities prompted by those who seek out new information or extract new conclusions from old information that the securities market can be efficient and perform its economic function. There has to be a cost to acquiring the information and transmitting it to the marketplace and it takes the form of the investment profits made by the acquirers or those who engage them. Regulation of the flow of information to the market is thus a sensitive matter and the hazards of over-regulation are serious. If it is effective the market ceases to be efficient and pricing becomes irrational; if it is ineffective the regulator becomes discredited and less able to control abuse.

THE ESTABLISHMENT OF A "CARIBBEAN" STOCK EXCHANGE.

Federated and unified exchanges. Many countries operate with more than one Stock Exchange. Usually they carry on independently. Sometimes, as in France they are federated. This means that French securities are only listed on one exchange and can only be traded on that exchange; it also means that all agents de change belong to one company whichever of the seven exchanges they operate in. The Australian Stock Exchange is a full scale amalgamation of six independent exchanges into one new company (in 1987) dedicated to the creation of single electronically-based trading and settlement system. The unitary Nigerian Stock Exchange operates on three trading floors. Uniquely, the International Stock Exchange in London not only operates separate floors - in Dublin, Glasgow and Birmingham - but operates across national boundaries. The Irish unit is subject to different securities laws and has a different currency. In the United States there are nine autonomous stock exchanges, but they all subscribe to a common price tape administered by the SEC and the Swiss exchanges have a similar arrangement.

Unification and Market Centrality. If broker dealers and investment firms belong to more than one exchange in a developed country and if the investment community there has simultaneous access to the prevailing prices in more than one exchange, then arguably there is a unified market because the common access of the community of intermediaries to order flow and to price data creates a single dealing network. In such a case, the benefit to be gained by unifying the exchanges as well would not be the creation of a unified market de novo but an improvement in commercial efficiency and competitiveness with other centres trading in the same instruments. In any case, in countries where there are a number of exchanges, one dominates the rest, as do New York, Paris, and London in their respective countries.

Operational unification. There are, however distinct differences between the informal centrality conferred by shared services and the formal centrality of uniform regulation. Most particularly if one intermediary fails to subscribe to all the exchanges of which the others are members, centrality is eroded. By extension, informal centralisation is likely to put up the costs of entry because the newcomer has to join everything at once and command all the necessary technical facilities at once if he is not to be at a disadvantage against the incumbent established intermediaries.

Unification in developing countries. The need to provide a unified exchange for a group of countries appears unique to the Caribbean. It rests on the perception that there is a need to achieve a scale of financial operation by cooperative effort which would be unachievable singly but which is the minimum necessary to support an effective securities market. It is variously argued that some of the Caribbean territories have economies that are too small to support an internal securities market, or that there are not enough investors, or that there would be an insufficient flow of issues to support individual exchanges in each country. More grandly there is the vision of enterprises able to pool the financial resources of the entire region, to command a wide variety of human skills and to resources and deepen the regional integration process.

Functions and Facilities In this context, the Caribbean Exchange is much more than a technical matter, it is the symbol, the catalyst, the expression and the goal of those seeking regional unity. From the preceding sections of this report it is evident that full-scale unification would require not only a Stock Exchange constitution and rule book but also action to put the following functions and facilities on a common basis:-

Dealing Functions

Price Dissemination (through a regional, screen-based system, backed by an enhanced telephone network)

Order Routing (designed to concentrate the dealing function in the most economical way, probably backed by electronic order matching)

Clearing

- Record of legal ownership - legal requirements to be amended to accommodate market needs

- Changes to ownership record - probably involving a book entry system which eliminates the need for physical transfer.

- Link to payments mechanism - following on from electronic order matching and confirmation and book entry transfer.

Liquidity

- Trading hours to accommodate regional time zones

- Off-floor dealing - to accommodate investors throughout the region and allow for electronic order matching and screen trading.

- Stock borrowing - facilities required to support continuous market making and trading.

Information

Company Law, Prospectus provisions, anti-fraud legislation and control of insider dealing

Listing Particulars - not necessarily on a common basis for all companies in so far as extra-regional securities might be admitted to dealing subject to an acceptable listing elsewhere.

A Takeovers Code

DISPERSION OF ASSETS REQUIRED TO JUSTIFY A MARKET

The traditional test questions to be put to would-be creators of a stock exchange are: is it wanted? and is it needed? A common reason for not needing an exchange, even if it is wanted, is that there are not enough people with money or stocks in the community to warrant setting an exchange up. Commonly there are businesses who would like to have access to fresh sources of funds and there are enthusiasts for the idea of an exchange, but it may be much harder to find the investors themselves. One approach to doing so is to assess the commercial prospects of the the venture which necessarily requires assumptions about numbers of buyers and levels of activity.

Commercial Viability. The most effective test of the justification for a securities market is whether market users generate enough by way of fees and other payments to procure an adequate level of intermediary services. This depends on (a) the quantum of tradable assets, (b) the need for their holders to trade them and (c) the level of service they require from intermediaries, including those running the market itself.

value of quoted securities in world exchanges is seldom less than US$2 billion. Nigeria is below that but, like Trinidad, market values have come down a long way. Turkey and Indonesia are both at about the threshold level, but both in the course of vigorous official development of the securities market. Because new issues generate more fees for intermediaries because of the underwriting, listing fees, and other services that they give rise to, small markets with a large volume of issues can still be viable.

The need to trade holdings is very hard to assess and depends on the pattern of ownership. The base level of activity is dictated by net inflows of contractual savings, deceased estate selling and, where the government is an active participant, the need to refinance maturing government debt or to demonetise government deficits. All of which is liquidity-motivated rather than profit-motivated. The level of profit-motivated activity, that is to say opportunist buying and selling, active portfolio management, arbitrage and so on rises as markets become more mature and competition between fund managers to outperform the market becomes more intense; but it can also vary sharply from year to year with changing market conditions. Overall, it would appear that annual turnover in common stocks can ranges from about 10% of the total market value (Greece) to about 90% (Hong Kong).

Institutions. An important influence on the propensity to enter into profit-motivated trades is the extent of professionally managed institutional investment, in the form of pension funds, insurance companies, closed end investment companies and mutual funds. In the Caribbean, the development of National Insurance funds may well stimulate the market and there is potential for intermediation through open or closed ended investment companies. In this sense it is more important for portfolio assets to be in the hands of relatively few independent professional managers than a large number of inactive private individuals.

The level of service In the last analysis, the commercial viability of a stock exchange as an institution depends on how far it matches itself to its market. Dealing exchanges can be very modest affairs. The Jamaican and Trinidad exchanges occupy a few room s and employ a handful of people. The broker members are not wholly dependent on broking activity for their own businesses.

EFFECTIVE PUBLIC ACCOUNTABILITY OF THE ISSUERS OF SECURITIES.

Impediments. The difficulties of ensuring reliable information from issuers of securities are a major hurdle to the establishment of effective markets and the maintenance of confidence in them. In developed countries there are permanent problems in defining the "true and fair" view and ensuring that it is provided. In developing countries, these matters may be over consumptive of scarce skilled resources. Furthermore, where there has been pilferage, false invoicing or other forms of fraud or deception in which employees may collude there can be both casual record keeping and an absence of audit rigour. Evasion of exchange control can particularly contribute to this type of difficulty.

Within the Caribbean region, legislation on these matters, either by way of securities act or companies act, seems to be diverging. Jamaica is preparing a Securities Act. Trinidad has an unsatisfactory one which it is apparently not looking to revise. Guyana has a new draft Companies Act; the Caricom Secretariat has its own drafts. Beyond that, each of the Caribbean exchanges has a different rulebook. There seems to be a strong case for attempting to consolidate these laws and regulations both to achieve efficiency and to set an identical standard for all issuers.

A CULTURE OF FAIR AND OPEN DEALING

People officially associated with stock exchanges persistently stress the need for fairness, probity and the highest standards of conduct, when year by year enormous scandals, such as Boesky, Guinness and Blue Arrow, are revealed. The call for ethical behaviour is not, however, misdirected, but driven by two commercial considerations. The first is that professional intermediaries in the stock exchange community for the most part spend many years working with and against the same professional colleagues and adversories. A measure of trust in dealing is essential. The second consideration is, of course, public confidence - in the widest sense. If the market and its procedures are distrusted it will not be used. It is also a matter of common observation that over very long periods of time securities exchanges have become deliberately, spontaneously and progressively more strictly regulated.

The creation of an open culture in the securities marketplace is difficult in closed, clannish societies that may be found in developing countries. Where business is dominated by deep seated loyalties or entrenched cabals it is virtually possibility that the stock exchange itself will be the focus for some tightly-knit group and correspondingly distrusted by others.

The constitutional arrangements for regulating the Stock Exchange are of great importance in circumventing these problems. Sometimes, for example, there is a strong desire by the promoters of new stock exchanges for them to be as far removed from the government as possible, which encourages the development of an essentially private body. At the same time, the need to strengthen regulation in the face of international fraud and organised crime, prompts a reluctance to confer statutory powers on a non-public body. Sometimes, per contra, the initiative for the exchange comes primarily from politicians and government officials who characteristically stress the regulatory institutional role of the exchange without giving adequate scope to the operational needs of dealers and market users. The compromise, which is now almost the norm throughout the world, is the establishment of a securities commission to protect the public and vet the practitioners, while allowing the exchange a wide measure of self-regulation. This should be the first step, circumstances permitting, to build confidence in any nascent financial services industry.

LEGAL, OPERATIONAL AND FOREIGN EXCHANGE ENVIRONMENT APPROPRIATE TO MARKET DEVELOPMENT

Where a country has not had a stock market or has written its laws without regard to the operations of a stock market it can inadvertently create major obstacles to the development of an effective market. It requires a legal expert to peruse all the relevant law and detect the obstacles and how they interrelate with one another, but the following have become evident on brief enquiry and may be offered by way of example.

In Trinidad, although title to a stock passes at the time of the bargain, it is illegal to sell a stock without being in physical possession of the certificate. This means that if an investor wants to sell, say 10,000 shares and can only get 5,000 away, he has to wait for the balancing certificate to be sent to him, weeks after the bargain, before he can sell the second 5,000.

Again in Trinidad, the Securities Industry Act fails to permit the Stock Exchange to deal in government securities, because of the manner in which security is defined.

In Guyana, the Capital Issues (Control) Act 1975 and the Exchange Control Act 1977 and the Co-operative Financial Institutions Act 1976, all impede the initiation of a stock exchange.

The need to liberalise foreign exchange restrictions throughout the region is widely supported and is a precondition to any real cooperation between Caribbean exchanges. It is also, however, an inhibition on domestic exchanges internal operations, because it is a standing encouragement to covert expatriation of savings.