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STRUCTURE, COST AND EFFICIENCY OF THE
FINANCIAL SYSTEM

Compton Bourne

The financial system of Commonwealth Caribbean economies is considerably different now from what it was when constitutional independence was first conferred some twenty-six years ago. The formal financial system has been elaborated by the establishment of a wider array of depository institutions, by the growth of contractual savings institutions, by the introduction of development banks and specialised financial institutions engaged in international quasi-financial intermediation, and by the establishment of Central Banks. In several instances, capital market institutions have been created.

Much of the structural development has been evolutionary. New institutions, instruments, and arrangements have often been the outcome of private initiative in response to economic constraints, regulatory barriers, and perceived profit opportunities. Nonetheless, there has also been a large element of willful design or planned development by the State which has intervened not only to regulate private behaviour but also to stimulate or lead development along lines thought to be supportive of national economic transformation and growth.

Structural change has not been unproblematic. Private and State-owned financial institutions have failed in sufficiently

varied national economic circumstances (Barbados, Jamaica, Trinidad and Tobago, St. Kitts-Nevis) to raise questions about the relationship between the nature and pace of financial change and the viability of particular financial industries if not the financial sector as a whole. This is not to suggest that the financial sector is endangered, but merely to indicate that there is need to weigh the costs and efficiency of the Caribbean financial structure.

The urgency of such an evaluation is underlined not only by recent negative occurrences. New initiatives being suggested by important transactors on both sides of the market for loanable funds, i.e. lenders and borrowers, also have cost and efficiency implications. A revealing example is the current discussion in Jamaican financial circles of commercial banks' participation in the equity of loan customers. From one perspective it has been argued that equity participation would involve banks too intimately in the operations of their clients and reduce impartiality and objectivity in credit allocation decisions. From another perspective, it has been argued that equity participation reduces information costs and may lower risk costs. Efficiency and costs are thus central to this contemplated extension of commercial bank asset operations.

This paper seeks to highlight several of the major issues pertaining to costs and efficiency raised by contemporary structure of the financial system. Structure is interpreted broadly to mean the types and functions of financial institutions and instruments, their inter-relationships, and the regulatory framework. Although

the analysis is informed by empirical work reported elsewhere by this author and others, the treatment here is non-empirical. This approach, I hope, has the advantage of eliciting discussion of principles rather than debates on the actual experience of individual economies.

CONCEPTS OF EFFICIENCY

Financial enterprises incur costs in the production of financial services. Like non-financial enterprises, they utilise real physical resources. Unlike non-financial enterprises, they utilise financial resources as direct inputs into their production process. Financial enterprises also run the risk of capital loss resulting from loan delinquency and asset value deterioration. It is customary to maintain some reserves as a provision against asset portfolio loss. These loss provisions may be as an element of production costs.

The depiction of a financial institution as a production enterprise leads naturally to one set of efficiency concepts, namely that of productive efficiency. Productive efficiency involves technical efficiency and price efficiency. Technical efficiency means minimisation of the input-output ratio. It is technology-dependent, so that if the financial structure is technologically variegated, structural changes may have distributional effects on the technical efficiency of the sector. Price efficiency means the satisfaction of the neoclassical rule

that the ratio of marginal products equal the ratio of input prices. Price efficiency is a minimum cost concept. It takes account of input prices. Both technical efficiency and price efficiency are necessary for productive efficiency.

Intra-sectoral comparisons of productive efficiency may encounter two serious difficulties. One results from differences in the configuration of input prices facing the several industries making up the financial sector. For standardised products and with identical production functions, cost functions may differ because input prices are not uniform. The second difficulty stems from financial product non-homogeneity. To be sure, some financial products are easily distinguishable from others. However, for many products, especially loans, quality characteristics, such as risk, convenience, etc., are unobservable although important product differentiating factors. Apparently identical products or closely similar products with evidently different unit production costs may be in fact quite dissimilar and with cost differences due principally to the dissimilarities.

Another concept of efficiency is that of allocative efficiency. By allocative efficiency is meant the allocation of financial resources in a manner that maximises economic growth or economic development or some other social objective external to the enterprise or industry. It is clearly not allocative efficiency in the Paretian sense for the assumptions of perfectly competitive product and input markets are unlikely to be satisfied. In developing countries, official policy is frequently concerned with allocative efficiency to the neglect of productive efficiency,

but both are critical. It would be impossible to attain maximum economic growth per unit of financial resources if financial enterprises are not themselves efficient. Furthermore, the pursuit of allocative efficiency without regard to the cost and revenue position of financial enterprises would tend to jeopardize the long-run stability of the financial sector.

PRODUCTIVE EFFICIENCY, ALLOCATIVE EFFICIENCY AND FINANCIAL STRUCTURE

Private and public sector initiatives have increased the variegation of the financial system. The reasons themselves are quite varied. The underlying reason for private sector initiatives is to exploit perceived profit opportunities. In several instances, new institutions come into existence to provide financial services which older institutions were not willing to provide or to cater to the financial demands of those potential customers excluded by them. In the cases of public sector initiatives, institutional innovation was motivated by the objective of remedying allocative inefficiencies in the sense used in this paper. In some instances as well, the rationale for financial innovation was to provide an institutional mechanism for financial resource mobilisation locally and internationally or for financial resource distribution. Institutional innovation itself has tended to have transformative influence on the portfolio behaviour of pre-existing institutions by the demonstration of

the profitability of new financial products and new production techniques or simply through the force of competition. Consequently, financial institutions are less specialised than might be imagined from the heterogeneity of institutions.

Table 1
Operating Expenses in Trinidad and Tobago
Financial Sector, 1987

<u>ENTERPRISE</u> <u>CATEGORIES</u>	<u>COST COMPONENTS AS % TOTAL ASSETS</u>			
	<u>TOC</u>	<u>INTEREST</u>	<u>LOSS PROV</u>	<u>LABOUR</u>
COMM. BANKS	9.1	4.4	1.0	2.8
FIN. COS AND MERC. BKS.	11.9	8.5	1.1	1.0
TCs AND MORT FIN. COS.	10.5	8.6	1.0	1.1

SOURCE: CBTT Quarterly Economic Bulletin, 13,2, 1988 Supplement.

Using Trinidad and Tobago as an example, considerable inter-industry differences in levels and structure of costs can be observed. Table 1 provides data on total operating expenses and several of its components as percentages of total assets which is taken as the output variable. Three categories of financial enterprises are included: commercial banks, trust and mortgage finance companies, and finance companies and mortgage banks. The data pertains to 1987 only. Commercial banks have total unit costs considerably lower than trust companies and mortgage finance companies which themselves have lower unit costs than finance

companies and merchant banks. Interest costs in commercial banks are half the level in the other two categories of financial enterprises, while labour costs are nearly thrice as large. The three types of enterprises have nearly uniform loss provisions. Specialised credit institutions in the field of development finance have even higher unit costs, lower interest costs, and much higher loan loss provisions.

Differences in cost structures to some extent reflect product differences. The depository activities and their wider range of financial services of commercial banks make them more labour intensive than other types of financial institutions with the exception perhaps of the life insurance companies. However, legal restrictions also have influence. The innovating institutions at the long end of the credit market have been statutorily confined to the higher interest rate long-term end of the deposit market, while commercial banks have been free to mobilise low interest savings deposits and zero interest demand deposits. The intent of the regulations seems to be by virtue of the matching principle in portfolio structure to concentrate credit allocation in longer term-to-maturity assets. The unintended consequence is an upward bias in the operating costs of the newer depository institutions.

The existence of substantial inter-industry cost differentials raises at least two important questions of relevance to the structure of the financial system. The first is whether the regulatory structure should discriminate in the manner it has between commercial banks and non-banks if the consequence is to

raise costs and lower productive efficiency. The second question is whether scale and scope economies have not been sacrificed by the way in which the financial structure has evolved.

Economies of scale exist when either when total costs decrease in response to a uniform scale increase in all outputs (i.e. overall economies of scale) or when total costs decrease in response to a scale increase in one output with the others held constant (partial economies of scale). Total economies of scale are not invariant with respect to the output mix so that product heterogeneity is critical to the assessment of the potential for scale economies from a less institutionally diversified financial structure. In other words, one has to measure the trade off between the improvements in allocative efficiency presumably associated with institutional variety and the potential economies of scale to be derived from institutional homogeneity. Matters are further complicated by the lack of a strict correspondence between institutional heterogeneity and product diversification.

Economies of scope, i.e. cost complementarities, exist when the marginal cost of producing one output decreases with increases in the production of other outputs. Scope economies are derived from resource sharing. Product heterogeneity within enterprises increase the potential for scope economies; product specialisation reduces it. It follows that tendencies towards product heterogeneity through institutional broadening rather than through enterprise-level expansion of functions are questionable from this aspect of productive efficiency.

A major source of scope economies is informational economies i.e. the development of data and qualitative information on a range of financial service activities capable of being utilised in more than one sphere of the financial enterprise's decision-making. Another source is the development of expertise with generalisable applications. The main significance of these sources is perhaps their potential for reducing risk costs, defined as the probabilistic erosion of financial capital through loan delinquency and market impairment of asset values. The expenditure statements of financial enterprises in the Commonwealth Caribbean do not adequately reflect the incidence of risk costs. Usually, loan loss provisions underestimate 'true' risk costs. Expertise and informational economies may reduce risk costs in a fairly obvious manner since a major determinant of risk is insufficient information and expertise. Economies in risk bearing and reductions in risk as an aspect of scope economies are also germane to the quest for allocative efficiency, for reductions in risks associated with socially preferred credit areas and reductions in overall risk exposure may create conditions more favourable for credit expansion along the preferred sectoral and industrial lines.

Financial institutions may be inclined to make a case for growth and consolidation and for direct involvement in the equity of loan clients in these terms (as they have done in Jamaica, albeit with little persuasive effect). It is a case to be taken seriously, but the assessment must also take into account the rather conventional concerns of market concentration in product

and financial input markets and the derived output and input price considerations. Financial stability is a lesser issue in this context for the record now shows that small size of financial enterprise, product specialisation, and input specialisation may be the more serious structural weaknesses affecting financial sector viability.

LEGAL RESERVE REQUIREMENTS AND ALLOCATIVE EFFICIENCY

Allocative efficiency is profoundly affected by statutory reserve requirements imposed on depository institutions. Productive efficiency is also affected. Basically, productive efficiency is impaired to the extent that legal reserves are non-earning assets. Allocative efficiency is impaired to the extent that reserves are not transformed into socially productive loans. Obviously, legal reserve requirements have justification in terms of enterprise solvency and macroeconomic stability. The question is what level of idle reserves are required for those purposes and what mechanisms or structural arrangements are capable of satisfying prudential objectives while maximising productive and allocative efficiency.