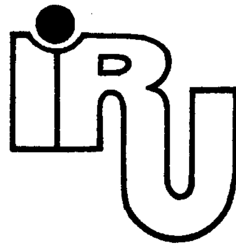

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Information, Transaction Costs and the Economic Analysis of Financial Firms

by Peter E. Earl

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INFORMATION, TRANSACTION COSTS AND THE ECONOMIC ANALYSIS OF FINANCIAL FIRMS

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ABSTRACT

This paper explores the changing structure of the financial services sector, particularly the growing tendencies towards the securitization of loans and the national and international diversification of financial intermediaries, in the light of the transactions cost approach to the theory of the firm. Problems are highlighted for earlier attempts to explain the existence of financial intermediaries in terms of their abilities to overcome information problems, spread risks, transform maturities, and so on: in principle, and often in practice, these difficulties can be dealt with by particular choices of portfolios of direct loans. The paper explores why it may be possible to economize on the information costs associated with arranging and policing loans if they are made via intermediaries. However, it stresses that giant diversified non-financial firms may possess market advantages which increasingly enable them to use their financial surpluses in a manner which poses a competitive threat to banks. The dividing line between financial intermediaries and non-financial firms as conduits for finance is becoming increasingly difficult to draw.

1. INTRODUCTION

This paper employs recent information- and transaction cost-based contributions to the literature on the theory of the firm to analyse the changing division of financial activities amongst different kinds of institutions. This literature has hitherto been used mainly in the context of primary, manufacturing and non-financial service enterprises, to make sense of their strategies of diversification, vertical integration and multinational investment . It is an obvious step to try to apply it to the financial services sector, especially given that a typical financial centre has many things in common with a high technology industrial estate or a shopping centre; it will contain many firms of varying sizes, ranging from highly specialized financial boutiques to giant firms such as Citicorp--diversified financial supermarkets that permit 'one stop financial shopping' and have operations in many countries.

Behind the shopfronts and inside the computer filled offices of a typical financial centre, three main activities will be going on, with different degrees of associated risk. Least threatened by unexpected market downturns is the business of providing information to those who have funds to place in the money markets or to those seeking to raise finance. Some firms specialize purely in this activity; examples here range from small high street partnerships offering 'investment advice', up to major credit rating agencies that appraise the risks associated with loans to large corporations and nation states. (In Australia, even the ordinary person in the street may be aware of the work of Moody's Investors Services, for this New York firm made the headlines in 1987--by downgrading the Australian national credit rating from 'AAA' to 'AA1'--and again in 1988--by reducing the rating of Australia's largest company, BHP, after the latter embarked upon a $A2.7 billion share buy-back campaign.) If these bodies offer bad advice and cause their clients to lose money, they risk losing future business through their tarnished reputations. But that is all, for they do not actually take on any of their clients' financial risks.

A second activity is that of bringing suppliers and users of finance together and arranging the legal paperwork. This, too, may be very much in the nature of a 'fee for service' operation (as with stockbroking firms in Britain, prior to the 'Big Bang', which ended the requirment that 'brokers' should not also be 'jobbers'), unless the firm in question takes on some financial risks to fill in possible gaps between the arrivals of buyers and sellers in the market in question. For example, a merchant bank may underwrite a new equity issue that it is handling for a firm, but might not normally expect to have to take up unsold shares. However, these kinds of firms have increasingly been taking on considerable risks of asset price movements: as Hamilton (1986, p. 89) notes, the big league American investment banks Salomans or Merrill Lynch on any one night 'might "go to bed" with an overnight exposure on their books of bonds and stocks of between $3 billion and $5 billion'. In times of financial collapse, a firm that specializes in dealing in securities might be able to do very handsomely: one such scenario would be where a flight from the market brings lots of orders to sell and the firm has not been speculating on its own account by, say, taking selling (buying) orders from clients at one price and then holding on to (delaying purchase of) the shares on a mistaken expectation that prices will recover (fall further) before settlement (delivery) becomes due. In the shakeout of securities firms following the Crash of October 1987, yuppie unemployment increased partly because of hammerings of broking firms due to their own misjudged speculations and partly because the switch from bullish to bearish sentiments led to a collapse in the volume of trade on which commissions might be earned.

Thirdly, there is the activity hitherto given greatest importance in works on money and banking, namely, *financial intermediation* --in other words, raising money from one group of agents and relending to another group. If the latter group do not perform very well, the interest payments or dividends that can be transferred to the former group may have to be slashed, with a capital loss also being implied for them if their claims on the institution are marketable or if the encashment values of their claims are related (as with some superannuation funds) to the value of the institution's assets. It may even be the case that

the financial institution itself becomes insolvent and cannot honour claims on deposits in full or, in the case of 'capital guaranteed' superannuation contracts, cannot meet its lump-sum repayment obligations.

In a world of incomplete and dispersed information, where many individuals have strong opportunity cost reasons for not spending much of their time studying and personally participating in financial markets, the existence of financial firms engaging in the first two kinds of activities is readily understandable. However, given the availability of these two kinds of financial services, careful thought is required before one can provide a rationale for financial intermediation. In the sections that follow the economics of intermediation will be explored, along with reasons for recent changes in the activities of financial firms.

2. BALANCE SHEETS OF FINANCIAL INTERMEDIARIES

The assets of a solvent financial intermediary are necessarily equal to claims upon it, from the moment it begins to set up operations and thereafter so long as it stays in business. In conventional texts on monetary economics, this statement is simplified to take the following form: 'the assets and liabilities of a solvent financial intermediary are necessarily equal'. An auditor, however, will conventionally divide the debit side of a financial intermediary's balance sheet into 'liabilities' and 'share capital and reserves', rather than treating as liabilities all the money that has been raised by the institution. The distinction between the two debit categories is important. The former comprise any money the intermediary has raised in the market, whether from depositors, or from loans by the Reserve Bank and/or other financial intermediaries, to which a particular claim--which may involve a detailed schedule of repayments or withdrawal under particular terms--is attached. The latter, which I shall hereafter call 'reserves' for short, is very much a residual, whose value will be adjusted to ensure that the two sides of the institution's balance sheet sum to the same amount. If the institution is wound up and ceases to exist as a going concern, depositors and creditors have first claim on its funds as assets are cashed in. Any funds that remain from liquidation will be paid to shareholders, pro rata to their shareholdings. In the case of a financial intermediary that is would up in a state of insolvency, its liabilities will exceed its assets, so the shareholders will get nothing and those who have made deposits with it or otherwise lent it money will only receive back a fraction of the amount with which they have they have parted.

If they are at all worried about the risk of losing their money, any would-be lenders to a financial intermediary, or subscribers to a new issue of its equities, may wish to know about the size of its liabilities relative to its existing reserves (what they may prefer to call its debt/equity ratio), as well as about the composition of its assets and liabilities. Reserves will be relatively unlikely to become depleted if they are proportionately large and if the intermediary has a set of claims on clients with strong credit ratings, while the vulnerability of the intermediary to a run of claims for repayment will clearly depend on the kinds of deposits it has accepted and on its ability to recall loans at short notice. These matters will also be of interest to the monetary authorities, who may lay down regulations about the structure of balance sheet an intermediary is allowed to have if it is to come into a particular category and receive particular privileges such as access to lender of last resort loans from the Reserve Bank. The role of reserves should be kept in mind as we explore the development of a financial intermediary's balance sheet in general terms in order to set the scene for the rest of this chapter's discussions about the economics of the financial firm.

Suppose a new finance company is set up via the flotation of equity stock. This company is likely to appoint bankers and pay the cheques it receives from the equity buyers into its new bank account. It now has assets (the bank deposits) and 'reserves' (the claims of the equity holders). It may then purchase premises and pay by writing out a cheque on its bank account and passing this to the vendor of the premises. Its assets still equal its reserves, though its assets are now divided between bank deposits and the buildings it

owns.

To become operational, our hypothetical finance company will need to spend money, hiring staff and paying for advertisements, which may seek subscribers to a debenture issue. These expenditures will initially run down both its reserves and its assets, as payments are made to staff and for advertisements. However, to the extent the firm markets itself successfully, it will receive cheques from debenture purchasers that it can pay into its bank account: it now has liabilities (claims of debenture holders for a stream of interest payments and, on a particular day, for repayment of principal), but its assets have risen by an equal amount. It is ready to make loans--for example to members of the public who wish to purchase new and secondhand consumer durables--and indeed it is likely to need to do so simply to honour its obligations to holders of its debentures due the interest rate on these being greater than what it earns by leaving the money in its bank deposits. Attempts to win borrowers away from other sources of finance will eat further into its reserves and its bank balance. So, too, will the processing and administration of the deals it strikes with borrowers and the interest payments it makes to holders of its debentures. If it cannot attract suitable clients, the company might well end up recording a fall in its nets assets.

A customer who receives the finance company's approval might be expected to sign up either for a personal loan or as a party to a hire purchase or leasing agreement. In the former case, the customer is given a cheque drawn against the finance company's bank account. The finance company thus exchanges a claim on its bank for a claim on the client who has signed the loan contract. It hopes that each month the client will pay in a cheque for an agreed value, which covers the interest for the amount of the that has been outstanding for the month in question and reduces both the size of the loan outstanding and the company's claim on the customer. The inpayment increases the company's assets by the amount of the interest charge, and its reserves rise similarly.

In the case of a hire purchase or leasing contract, the finance company buys the item in question on behalf of the client, who is then entitled to use it for the term of the contract and may be in a position to claim tax relief on the rental payments (for example, in the case of a leased company car). However, as far as the analysis of the finance company's balance sheet is concerned, the monthly payments may be recorded in very much the same way as repayments of a personal loan. Each month the value of its balance sheet associated with the deal falls if the market value of the asset in question falls--wear and tear will normally ensure that this happens, unless prices of newly produced examples of the subject of the contract are rising sharply, or it suddenly acquires status as a collector's item. Despite this, the finance company's net assets, and its bank balance, will grow with each payment by the client so long as the the depreciation write-down is less than the rental charge. A rise in value of commodities that underlie particular contracts will leave the firm in the position of being able to record an increase in its assets and reserves by the value of the monthly repayment plus the increase in market value of the commodity.

A variety of things can happen at the end of hire purchase and leasing contracts. In the simplest case, where it is agreed that the client can purchase the item in question for a nominal sum, all we really have is a situation where the a last payment effectively sees that value of the item being written down to zero. One of the more complex cases would be where the last rental payment is accompanied by a substantial cash lump sum (a 'balloon') which takes the place of the item in the company's asset listing as the lessee becomes the item's owner; whether or not the lump sum payment is seen as entailing a change in total reserves and assets would here depend upon whether the compny has been doing a simple straight line historic cost-based depreciation of the item's value down to its agreed residual value or has been keeping a firm eye on what it would fetch if the client failed to meet payments and repossession had to occur.

At the end of each accounting period, the finance company's audit will reveal its change in reserves, which is the same for its net acquisition of financial assets (NAFA) for the period. If it has made neither accounting profits nor losses, then its NAFA will equal zero: it cannot pay out dividends to its shareholders without running down its net assets to a value below that of the end of the previous period, even if its total balance sheet has

increased in size. Clearly, a financial intermediary that continues to expand its balance sheet without increasing its net assets it going to find it harder and harder to satisfy existing shareholders, let alone raise new equity and attract new liabilities. A financial intermediary that simultaneously experiences no growth in its net assets and suffers a reduction in its gross assets may look somewhat less vulnerable in the short term, but something is still going badly wrong if the balance sheet and reserve holdings of its rivals are growing steadily: its shareholders' funds would be better placed with the latter.

3. INTERMEDIATION VERSUS DIRECT FINANCING

Some questions appear to be in order now we have recognized that the NAFAs of solvent financial intermediaries must equal zero aside from changes in reserves resulting from profits or losses: Why are borrowers prepared to line the pockets of shareholders of financial institutions by paying to rent money from these bodies instead of borrowing directly from lenders and paying them a rate of interest somewhere between the loan and deposit rates set by intermediaries? In other words, why do borrowers not try to do without financial middlemen? Why do lenders not take similar initiatives and seek to undercut the middlemen and thereby lend directly? The obvious riposte to these queries begs a further question: 'in fact, some borrowers and lenders do avoid using intermediaries, but some don't, so how do we explain the structure of financing and changes in that structure?'

These questions are not merely of academic interest. Take first the area of consumer credit. We are not dealing purely with cases of direct financing that may be quantitatively somewhat insignificant: for example, where children find their parents keen to undercut interest charges of banks and finance companies by lending out money from their retirement savings, with the children paying the parents their opportunity cost return (for example, the interest their money would have earned had it continued to be kept in a building society). Rather, we need a way of understanding the explosion of direct financing that has taken place recently, as well as long-standing phenomena such as trade credit. Following the lead of Sears Roebuck in the United States, retail stores such as Marks & Spencer and Debenhams in Britain, and Coles-Myer in Australia, nowadays try simultaneously to drum up business and the potential for interest earnings by supplying their customers with credit. Likewise, the big three United States car companies each run their own finance companies, to lend their potential customers the money to buy their cars.

Such developments make it very tricky to define where direct financing stops and intermediation begins. It may well be the case that the consumer credit comes from financially distinct subsidiaries--such as Ford Credit--that do act as financial intermediaries to the extent that they raise funds externally, for example by issuing debentures. However, to the extent that the funds come from undistributed profits of the parent company, it is far less clear whether intermediation or direct financing is taking place--perhaps one should say that top managers with shareholdings are lending directly but external shareholders, and those employee-shareholders not involved in decisions about the allocation of corporate funds to consumer credit, are not, since the latter two groups are letting the former decide what to do with the retained profits.

On the side of corporate finance, we have to be concerned not merely with companies that may decide to obtain new equipment by using the funds from a fresh equity or debenture issue to purchase it, rather than by going to a bank to fix up a leasing scheme or to borrow the money to finance the purchase of the equipment. We should not forget the role of trade credit as a substitute for bank overdrafts, especially since sometimes this source of working capital may even provide the wherewithal for fixed investments: I well recall how, in the early 1980s, a British tyre and exhaust specialist very rapidly buillt up a nationwide set of operations through its skill at turning over tyre stocks at a far faster rate than its suppliers required payment. More importantly, as every MBA student knows, large manufacturing companies can channel the surpluses of their 'cash cow' divisions directly to their cash-hungry 'stars', 'question marks' and 'dogs'. as well as frequently using their

financial surpluses for purchasing each others' securities, even if they have no intention of making an outright takeover bid.

The phenomenon of direct financing--which the financial institutions see as disintermediation--is becoming so widespread, particularly in respect of long term large-scale borrowing where marketable securities are displacing loans, that it is posing a major strategic challenge to even the largest banks, some of which are seeking increasingly to make their profits from broking activities rather than from intermediation (see Coggan, 1986, Ch. 1). The structural shifts between intermediated and direct finance are also of major importance for the monetary authorities, whose policies have hitherto concentrated on controlling the volume of aggregate demand via attempts to influence the size of financial intermediaries' (particularly banks') balance sheets: to put it bluntly, these developments are further nails in the coffin of policies that centre on monetary targetting.

There are four frequently proposed explanations of why people and companies are attracted to make use of financial intermediaries, despite the costs of doing so. The first I wish to consider is that these insitutions are often 'borrowing short and lending long': they *transform maturities* for people who wish to rent their money out for periods shorter than the time other people wish to be in debt.

Little thought is required to see that intermediation is not essential as a means for reconciling conflicting financial time horizons. So long as securities that represent long-term debt can be sold at short notice, borrowers may find it quite easy to sell them to people who wish to place funds on the market on a short term basis. In the late 1980s *securitization* has broadened the market for loan paper beyond government stocks and corporate debentures and into the area of household credit. Mortgage securitization involves parcelling together a body of individual mortgages as backing for a paper security, which yields a flow of income dereived from the payments by mortgagees. These securities can be bought and sold, and hence passed from one short-term lender to another. Although traditional intermediaries are starting to take on some of the business of parcelling up and floating the securities and acting as collection/distribution agencies for repayments (even building societies could move in this direction and away from the business of deposit-taking), there is no reason in principle why such actitivites should not be undertaken by specialist broking firms with the kinds of skills one normally associates with merchant banks. In fact, as Hamilton (1986, p. 71) points out, mortgage securitization has been encouraged for the past thirty years by the United States goverment, which has given guarantees to bodies such as the Federal National Mortgage Association and the Student Loan Marketing Association, and it has grown to be a $500 billion market. The impetus towards securitization has also come from banks, such as Bankers Trust, that have recently seen the securitization of their loans as a way of getting out of most of their retail deposit taking activities once they have decided that their best chances of survival lie in corporate and investment banking (Hamilton, 1986, p. 102). There is no reason in principle why securitization cannot be extended to cover personal loans for other consumer durables, with shorter lifespans than houses, or business leases on cars and computers.

Like debentures, mortgage-backed securities offering fixed interest rates can be aimed especially at insitutional lenders--financial intermediaries such as pension funds who normally require steady earnings. (One would expect them to come to have a strong appeal to building societies as devices for dealing with occasional drains on their liquidity, for it is much easier to sell off previously purchased mortgage-backed securities than it is to try recall particular mortgages prematurely.) For those who only wish to lend out their money on a short term basis, the purchase of such securities would be a somewhat hazardous exercise in times of fluctuating interest rates. However, it would seem perfectly possible to issue mortgage-backed securities involving indexed repayment obligations for the mortgagees: for example they could be related by some formula to the home loan rates set by intermediaries. A sudden rise in interest rates would then be less likely to entail a fall in the value of the securities.

As an alternative to the securitization route, long-term borrowers could try to meet the requirements of lenders by arranging a succession of short term loan contracts. If the

suppliers of funds found that they did not wish to access them at the end of the contract, then they could relend the money for another term. To the extent that previous lenders did require access to their funds, the borrower could make contracts with others who were newly entering the market, willing to part with access to their funds. The suggestion that de facto long term indebtedness can be arranged on the basis of, if need be, very short term loan arrangements should not seem at all far fetched. In practice, loan contracts *can* be made for very short durations, as in the case of the overnight money market (where, indeed, much of the business is between banks themselves), and short term loans are often 'rolled over' time and time again, as with many borrowings by less developed countries.

It might be objected that agents who borrowed in the latter way would have no guarantee of being able to refinance their debts when their existing loan arrangements expired, and that this would militate against them using such a method of finance. However, it should not be forgotten that financial institutions that do not match the maturities of their assets and liabilities face precisely the same problem. This was very apparent after the 1973-4 oil price increases: the OPEC countries were keen to place their surplus funds with banks, but initially they were only willing to do so on a rather short-term basis, in order to take advantage of the growing tendency towards exchange rate instability. Until the OPEC depositors began to take a longer term view, fears of sudden huge deposit withdrawls concerntrated the bankers' minds wonderfully on the advantages of casting themselves in a loan broking role and encouraging disintermediation in the process of recycling OPEC funds to countries with increased balance of payments deficits.

A second rationale put forward for financial intermediaries is that they make it possible for small savers to lend to large spenders. However, pooling of financial resources can be achieved without intermediaries being involved: here, we can note the frequent cases of large users of funds, such as major corporations or sovereign borrowers, doing deals with smaller suppliers of funds--including banks themselves--grouped together as a consortium. It is also interesting that, at the more mundane level of housing finance, one finds 'small' borrowers, willing to pay the interest charges of intermediaries and yet having to put together a loan 'cocktail' from the coffers of several financial institutions because no single lender is prepared to put up the entire sum required: a bank or building society may limit the percentage of a house's valuation against which it is willing to put up as mortgage and suggest that the would-be buyer finances the balance in excess of her deposit by going to a credit union for a personal loan and going to appropriate agencies to check her eligibility for any low interest start-up loans provided by the government.

Thirdly, it may be suggested that financial intermediaries enable people to spread the risks associated with renting out their money. For those with funds who are worried about the risks of putting all their financial eggs in one basket, one possibility is to make small loans to a large number of borrowers: this is, after all, precisely what the typical financial firm does. For example, although an individual may be operating on a smaller scale than the managers of a unit trust, it is quite in order for her it to buy small parcels of equities in a many companies, for example, instead of subscribing to a broad-based unit trust and letting someone else hedge on her behalf. Although the individual may feel drawn to the unit trust because of doubts about her own expertise in playing the markets, she may also recognize that she can purchase expertise and then buy shares on her own account: it is not necessary to turn her money over to an intermediary. Moreover, it should not be forgotten that the existence of unit trusts, life assurance companies and deposit-taking insitutions does not of itself necessarily eliminate all the worries that a people might have about their abilities to hedge their bets in financial markets: there is still the risk that particular financial intermediaries may perform poorly, so it is no surprise to see people having claims on a variety of institutions.

Finally, let us consider the suggestion that financial intermediaries exist because of the difficulties that suppliers and users of funds may have in discovering each others' whereabouts. For example, the university at which I work has an intermediary called the 'Campus Credit Union Cooperative Society', which can undercut large commercial banks on its personal loan charges by virtue of its low overheads. (These result, among other

things, from its access to the low cost advice of some of my colleauges who serve on its board, and from the advantages that its more intimate knowledge of potential borrowers brings to the task of assessing credit risks.) It this body did not exist, a member of the university who wanted to borrow money from her colleagues would obviously find it rather tiresome to ring round or go on a door-knock expedition to raise money directly. Such a problem would obviously send her elsewhere in search of her loan. However, if informational problems provide the rationale for the Campus Credit Union's existence, they do not mean it must act as a financial intermediary. Membership could instead involve access to an on-campus loan broking and payments collection service, with the cooperative's employees handling all the paperwork that might arise from lenders' maturity requirements and from any requests they made concerning the maximum proportion of their funds they wished to lend to any single individual with a particular credit rating. With such a service, it would not be necessary for lenders ever to come face to face with borrowers; indeed, so long as the cooperative's office kept charge of records of how particular loans had been syndicated, total anonymity could be preserved.

4. A TRANSACTION COST PERSPECTIVE

The problem of finding a rationale for the existence of financial intermediaries is similar to that of trying to explain the contrasting strategies of firms in the non-financial sector that engage in vertical integration and other forms of diversification. It is often the case that firms involved in similar product markets vary considerably in the extent to which they use in-house facilities for the production raw materials and semi-finished inputs or do their own distribution. Take, for example, the business of publishing. Some firms subcontract the copy-editing, typesetting, printing and binding of the books that comprise their catalogues and pay other firms to distribute them to retailers. Other firms employ more staff and invest in the technology necessary for the production of books (though rarely is it that they own logging concessions and papermaking factories), and maintain warehouses or even (as with the Australian group Angus & Robertson) a chain of retail stores in which they sell a good part of their output as well as the products of other companies. Some publishers seek the advice of outside referees on the merits of works that authors have submitted; others employ full-time editors to read manuscripts and decide for themselves if these are worthy additions to their firm's catalogues. Some may even employ staff writers. As far as overseas markets and authors are concerned, we can observe a similar variety of strategies. It is common for one publisher to get another to act as its overseas agent and distribute its books on a commission basis (it is also common for Australasian academics to bypass these agents and local bookstores and buy their books by mail-order direct from British or American publishers or from major overseas bookstores, such as Heffers of Cambridge). A popular alternative is to sell a batch of books outright to an overseas company, along with sole distribution rights over particular territory. But fully multinational publishing houses are also common.

This 'some firms do, some firms don't' phenomenon has only recently received from economists the attention that it really deserves. The key contributions are by Williamson (1975, 1985) and Kay (1982, 1984); all have been inspired by a paper by Coase (1937), the broader implications of which were not seen at the time of its publication. The new literature is often called 'Transaction Cost Economics' and it seems readily--or rather, particularly, given the its overlaps with liquidity preference theory--applicable to firms in the financial sector. The relevance of Williamson's contributions to the analysis of the prudential regulation of financial systems has been recognized by the political theorist Michael Moran in his (1986) book *The Politics of Banking* . However, applications of transaction cost economics are conspicuous by their absence in the major surveys of literature on banking and the theory of the firm by Baltensperger (1980) and by the contributors to JMCB (1985). Nor, despite obvious commonalities, is it referred to in recent work by Diamond (1984) on the theory of intermediation.

In his original paper, Coase argued that the firm is a device for dealing with change without a need to rewrite contracts to cover the impact of changes on affected parties. The firm has a rationale only because there are costs associated with getting things done in the market. Consider a situation where a publishing company finds one of its books selling unexpectedly well and therefore wishes to increase its supplies to its distribution network. If the book is one of many that it prints and binds in-house, and if the contracts with its workers do not tie them to the production of particular books, then it is, in principle, a simple matter to get production increased: a manager just has to request that more copies are produced, either by taking up spare capacity or by cutting back on the production of other books. If the company had adopted the strategy of subcontracting the printing and binding of its books, matters could be more difficult; for unless a contract already existed to cover the contingency, it would be necessary to negotiate with an outside supplier for the production of extra copies. Valuable sales could be lost in the interim. If the runaway success of the book had been totally unexpected, it is unlikely that the management of the publishing company would have previously negotiated arrangements for production on a greatly enlarged scale at a later date, for negotiation may involve a lot of time spent in drawing up and haggling over fine print. The essence of the firm is that it is an institution in which some of the costs of arranging economic activity by detailed contracts have been avoided by taking on--'internalizing'--risks associated with loosely-specified contracts and then incurring the costs of a maintaining a mangement team whose job it is to decide what they would like to see done as conditions change.

There are obvious parallels between the Coasian view of the firm and the Keynesian view of money and liquidity; in fact, what first prompted me to read Coase's paper as an undergraduate was actually a footnote in Goodhart (1975, p. 4) in which this was pointed out. Loasby (1976, pp. 165-6), too, has briefly explored this theme, commenting that 'Money and the firm both imply a rejection of the concept of general equilibrium in favour of a continuing management of emerging events' (p. 165). Like cash in hand, workers whose employment contracts are short on specific details can normally be redeployed with the minimum of fuss to take account of the employer's needs. At the other end of the liquidity spectrum, commitment to highly detailed contracts for the supply of labour or other goods and services is more like house ownership in terms of the costs of change. However, just as it is difficult to specify precisely what differentiates money from other assets, so it it by no means easy to define precisely the boundaries of a particular management team's span of control, its ability to change its mixes of inputs and outputs as and when it wishes. Some employment contracts more watertight than others, and employees and other suppliers of inputs may vary from time to time in their interpretations of what their side of tha bargain entails. Full internalization may not be necessary if one wishes to influence one's suppliers and distributors: Richardson (1972) notes the scope for achieving such results via minority shareholdings and by engaging in customary forms of market behaviour (for example, regular customers of a firm may expect preferential assistance in a crisis and often receive it even though nothing more than an implicit long term contract exists). Similar sentiments are voiced by Harrigan (1983), who coins the term 'quasi-integration'.

A Coasian perpective on financial intermediation would run as follows. *Some* kind of transaction cost will be incurred no matter which method is used for arranging flows of finance between lenders and borrowers. An institution that internalizes borrowing/lending activities within its own balance sheet does so in the hope of earning a margin by providing cheaper ways for lenders and borrowers reconcile their divergent needs for finance and willingnesses to take risks. As far as depositors with banks, building societies, credit unions and so on are concerned, the key feature of the arrangement is that they are lending to the institution as a whole: trouble with any particular asset will have no impact whatever on the wealth of particular depositors provided that the intermediary can write it off against its reserves. Depositors only stand to lose if there are a large number of simultaneous losses due to widespread defaulting by borrowers and/or a collapse in security prices.

Compared with alternatives--such as simply holding on to notes and coin to avoid risks of lending, or hedging by lending small sums directly to a range of individuals or by

holding a diversified portfolio of shares and government securities--deposits may be seen as offering great scope for achieving a satisfactory risk/return mix with minimal tranacations costs. (In the respect of the latter, it may be said that a placement with a financial intermediary in preference to the purchase of equities and debentures takes a step further the advantages that the ownership of corporate securities has over the ownership of a specific physical asset which is rented out to a firm.) Depositors can access (or pay in) their funds via one simple withdrawal (or deposit) request. Moreover, they can do this without incurring significant fees. This is in sharp contrast to the situation that small savers often face if they want to put their funds into securities. There are obvious economies of scale in obtaining information about what to buy and when to sell, and in the brokerage costs associated with dealing in small parcels of shares. These are likely ensure that the person with a small financial surplus may get a better net return from a time deposit in a bank or building society or by placing funds with one of the 'insitutional' intermediaries that can benefit from economies of scale in playing the stock market.

An intermediary will need to ensure that borrowers can benefit from lower interest rates and/or loan set-up charges, for otherwise they will have no incentive not to use direct financing methods. Lower interest costs to borrowers may be possible insofar as lenders are prepared to accept that interest payments lower than those available on direct lending are they price they must pay for the service the intermediary provides in enabling them to meet their risk/return/flexibility goals more easily than they might if they used other means of making their surplus funds available to others. Competition for funds amongst intermediaries will limit the price that lenders have to pay in this way. On the side of set-up costs for loans, the services offered by an intermediary may look attractive from the standpoint of a borrower who is not naturally in direct touch with potential sources of funds, or whose funding needs are not large enough to benefit from any economies of scale that exist in the loan broking business. Maturity transformation by intermediaries may give borrowers transaction costs lower than those that would be associated with frequent rollovers of short-term securities. As deposits come and go, there is normally no need for the intermediary to consult borrowers at all, which is precisely as in cases where a loan is securitized and the ownership of some of the securities changes hands. However, compared with a securitized loan, a long term loan from an intermediary is much more convenient should the borrower decide to pay off the debt more rapidly than had originally been planned.

Overdraft facilities provide a further example of a device offered by banks and, increasingly, even junior league intermediaries such as credit unions, which involves very low transaction costs. An initial agreement is made between the borrower and intermediary about how far the former's account may become overdrawn, but no formal contract is made concerning the time and actual extent of over-drawing and repayments (aside from banks typically specifying that they may demand full payment at any time, something they rarely do in practice). The borrower does not need subsequently to visit the intermediary to make arrangments for accelerated repayments or for increased indebtedness so long as the agreed ceiling provides adequate headroom. Credit cards offer much the same attractions, along with their means-of payment capabilities.

It is not impossible for something akin to an overdraft facility to be arranged without the participation of an intermediary. The recent emergence of markets for debt options provides some food for thought in this connection (see Das, 1987, for a succinct guide). Two such options are nowadays traded: a 'call' option gives the buyer of the option the right to purchase a particular debt instrument or futures contract on the instrument at a specific price during a specified period, whereas a 'put' option gives the buyer the right to sell a particular debt instrument or futures contract on the instrument during a specified period. The debt instruments traded in practice are usually 90-day bank bills or bank bill futures, and those who buy them usually do so as a way of reducing their exposure to possible fluctuations in interest rates during the option period. In principle, however, options could pertain to potential debts of particular individuals and corporations.

One arrangement would involve the sale of loan options by would-be lenders to those

who wanted guaranteed access to funds, at a guaranteed price, during the period before the option expired. If sellers of the options later had second thoughts about their willingness to provide funds if called upon to do so, they could get out of their commitments by buying similar options to borrow. It is easy see scope for considerable transactions costs with this system: these would arise not merely because of the costs of floating such securities but also because the issuers of options would wish to prevent subsequent trade in them from leading to any worsening of the risk category of the holder of the option. An alternative arrangement, which avoids the latter difficulty, would involve the potential borrower paying another party to accept option securities which stated that, if the option were exercised, whoever owned them at any point up to the expiry date had to provide loan finance to the issuer at a specified rate of interest. With this arrangement, it would still be neccesary for those who accepted options to incur the costs of making appraisals of those to whom they might have to lend. Clearly, if the issuer was thought unlikely to take up the option and was offering the potential for a better rate of return than might be gained from spot loans contracted on or before the expiry date with a party of a similar credit rating, then it would take a relatively small financial inducement to persuade another party to accept to option. If a would-be lender had second thoughts after accepting the option, the obvious way out would be to pay someone else to take it on. If it became increasingly likely that the issuer of an option was going to take up that option, and if interest rates were expected to fall below the specified rate, the option might well start to command a positive price.

In practice, the modern alternatives to an overdraft used by corporate borrowers are hybrids between bank loans and spot sales of commercial paper: NIFs and RUFs (respectively, note issuance facilities and revolving underwriting facilities) are offered by syndicates of merchant banks who contract to stand ready to issue and underwrite short to medium term securities for the client firms. The transaction cost advantages of NIFs and RUFs over the kinds of option systems just described are obvious: the client is basically paying a fee for the option to have securities sold by an agent or syndicate of agents and then, until an actual need for funds arises, there is no need for the underwriters to enter the market at all.

5. EFFECTS OF OPPORTUNISM ON THE CHOICE BETWEEN DIRECT AND INTERMEDIATED FINANCING

Recent extensions of Coase's work by Williamson (1975, 1985) point to further complications and insights regarding the choice between direct and intermediated lending. Much of Williamson's research effort has been concerned with the possibility that parties to a transaction may behave in an 'opportunistic' manner: that is to say, they may guilefully exploit the ignorance of parties on the other side of the transaction. This is an idea which figured earlier, though not so prominently, in the behavioural theory of the firm proposed by Cyert and March (1963) and a brief sketch of how they would see the relationship between a firm and its bankers is a useful prelude to a consideration of Williamson's work.

Cyert and March portray firms as coalitions of agents who, so to speak, 'keep their cards close to their chests' as they make demands for a slice of the organizational output and promise to provide inputs. Such coalitions include suppliers of finance. Managers of a firm can never be sure quite how far they can push their luck with their bankers (nor with their shareholders, customers, workers or each other, for that matter), and bankers can never be sure quite how far they can push their luck with the managers before they will abandon projects involving loan finance or will turn to other sources of funds. In troubled times, managers may find their bankers surprisingly understanding, and bankers may be surprised at the restructuring the managers are willing to undertake to avoid foreclosure; in other words, under pressure coalition members start revealing more of their hands in order to avoid seeing the disintegration of the firm and the consequent need to incur the costs of trying to fix up new market transactions (such as new jobs for managment, new corporate clients for the bank). The implication is that in the past both sides have been behaving with

opportunism: management have been jeopardizing their firm's balance sheet by permitting in non-essential expenditures; the bankers have been giving the impression of being less willing to back the firm than they really were.

Implied in the Cyert and March analysis is the notion that the pressure of competition will affect the extent to which economic actors feel inclined to behave with opportunism. Williamson also makes use of this idea (with surprisingly little acknowledgement to his teachers, Cyert and March) but sets it in a broader context: he argues that the incentive to make guileful use of one's private knowledge will vary according to the transactional environment in which one is acting. It will probably be helpful if I initially illustrate this claim by referring once again to our publishing example, rather than by immediately applying Williamson's ideas to the financial sector. The important thing to bear in mind during the course of the discussion is none of the problems raised would arise if relationships between transacting parties were specified fully in costlessly enforceable contracts.

Suppose a publisher uses an intermediary to distribute its books in overseas markets. If that intermediary is part of another publishing firm, producing rival products, then it has to trade off the earnings it can make from pushing its client's products to the best of its ability, against the earnings it can make from concentrating on pushing its own products at the expense of those of its client. It could try to explain away poor sales of the client's books with reference to the difficulties of selling in this market, difficulties which it knows better than the client. How could the publisher prove otherwise, thousands of miles away from the scene?

If the publishing firm is aware of these risks, it is likely to consider the pros and cons of some transactional alternatives. For example, making commission contingent on the distributor shifting a minimum number of books may look a bit better to the publisher than a sum per book, provided a distributor can be found who will accept such a deal. Something which might produce an even better selling effort would be a deal in which the distributor actually bought a minimum number of books for resale from the publisher. Yet another strategy for the publisher to consider is vertical integration, which would involve setting up a distribution network from scratch or taking over an incumbent firm. This option might well be blocked by imperfections in the capital market and the limited capabilities of the firm's management team (in the sense of Penrose, 1959). Otherwise, though, it might look attractive since those involved in the distribution side would know that if they failed to work effectively they would be helping rival firms at the expense of their employers. There would be some incentive for all employees to pull together and follow management's exhortations, even where the latter could find it difficult to prevent shirking by the former within the compass of their loosely-specified contracts of employment. But it might not escape the attention of those involved in distribution that their's was something of a captive market, unlike that enjoyed by an external contractor, so they could feel able to take things more easily without their employers deciding to write off the sunk costs of their investments in distribution. Worse still, if there were economies of scale in distribution, it could be difficult to find an outside market for any surplus capacity owing to a lack of faith on the part of would-be clients; so even if in-house distribution employees could be expected to do their best, the questionable services of outside contractors might look preferable to the unit costs of avoiding the market. Vertical integration, in short, is not a sure-fire way of disposing of risks of opportunism.

The mention of the internal distributor's captive market is a cue to recognize the possibility that potential and actual competitors with similar bases of experience may be able to discredit someone who is trying to behave with opportunism: fear of this happening may tend to curb such behaviour even when contracts are incompletely specified and/or costly to enforce. However, there is no guarantee that this will happen. Would-be entrants with a partial knowledge of what incumbents are up to may not be able to expose convincingly them without incurring considerable research costs and even those with a detailed knowledge of the set-up might need to incur substantial marketing costs before they could succeed in selling a cheaper duplicate or a superior product for a similar price. The more

intrinsically difficult it is to specify in advance what a customer is supposed to be getting, the harder it is for someone else to prove that a better deal could be otained elsewhere.

It is hard to imagine a market where scope for opportunistic behaviour arises more than in that for finance, even though the ready market for suitable premises, the scope for leasing computing equipment and the increasing ability of skilled personnel to extract their transfer earnings from their employers might all be taken to suggest it is a highly contestable one (see Davies and Davies, 1984; Harper, 1986). Those who part with their money have great problems relating to information and property rights. For example, a lay-person may be unable to check the quality of financial advice given by a third party without investing in expertise herself or relying on the advice of a fourth party: how can she know if she has become sufficiently expert or that she is not being deceived by a fourth party? Guarantees may be offered in respect of flows of earnings or realization values, but if the guarantor chooses not to deliver, it may be costly to go through the courts to obtain redress. It may be very difficult to distinguish sloth and incompetence from genuine bad luck in the event of non-guaranteed earnings being below expectations, and this could make it very unclear whether a change to another way of lending out one's money is in order. Let us explore these kinds of problems in some detail.

To begin, consider some of the worries a non-expert lender may have when initially shopping around for somewhere to place her funds. If she goes to an investment advisor, there is the risk that she will be offered biased recommendations. The advisor--who may be someone encountered in person or via the medium of an investors' magazine--may have personal holdings in particular securities and hence stand to benefit by encouraging the client to buy them too. (Editors of investors' magazines will similarly think twice about condemning the financial packages offered by those who provide them with major sources of advertising revenue.) If the advisor also fixes up the deal that the client has decided upon, it is possible that a commission fee will be forthcoming from the third party, who may well be a financial intermediary. Hence the advice offered may be shaped by the different sizes of commissions: for example, it may be that the advisor can earn more by encouraging the client to place her money with a particular unit trust or life assurance company, rather than by suggesting she purchases a particular portfolio of equities and bonds. Unless legislative safeguards are in operation, potential lenders to unit trusts and life assurance funds will not automatically be informed of the incentive structures with which advisors, brokers and dealers are working.

If the lender is worried by all this and by her own lack of expertise, she might consider avoiding the services of these agencies altogether, along with any attempt at direct financing, and instead focus her attention on intermediaries. But she could still go expensively wrong in trying to make up her own mind on the basis of the latters' past records and claims in their brochures. It might be better to pin trust and share listings to a noticeboard and choose on the basis of where darts happened to strike home after being tossed aimlessly in their direction--after all, if she throws in a truly random fashion and can adjust her portfolio quite frequently in the light of such exercises without incurring large brokerage costs, she can expect at least to beat the performance of the stock market index simply because the weights used in its compilation tend to be somewhat out of date.

Economic theory cannot predict on an a priori basis how the lender will eventually make up her mind, even if her risk/return/flexibility preferences and size of portfolio are known. We are dealing with a situation in which there is no obviously foolproof way of finding the preferred deal, so choices may vary greatly according to subjective perceptions. Practical investigations need to be made to discover the variety and relative frequency of use of beliefs actually used in portfolio choice. The hypothetical lender we have been considering *might* opt to go straight to an intermediary, because she believes that employees of intermediaries are be given strong incentives, such as bonus payments related to their firms' performances, to avoid making poor decisions about where to place their clients' funds. But she *might* choose that option on the basis of a multitude of other personal beliefs. Some lenders may feel that fund managers in intermediaries have much stronger longer term interests in making their money work well, because an 'advisor' may just receive a one-off

kick-back for recommending a particular package. Compared with 'the institutions', brokers and advisors may seem more like potential fly-by-night operators if they have not been in the business for years and years. Other lenders, however, may see reasons to doubt such beliefs.

Those who see little need to regulate financial markets would probably wish to point out that advisors and brokers may think twice about letting their recommendations be biased by short-term considerations if these conflict with the possibility of building up the client's long-term goodwill and hence making money from repeat business and word-of-mouth recommendations. If the client discovers that she has been misled, then she may be able to do an opportunistic advisor a good deal of damage by spreading word to her friends, and this is something that an advisor, like a used car dealer, can point out to engender trust. As with motoring 'lemons', though, it may well be the case that this control mechansim works poorly: if would-be opportunists expect that most of their their customers would find it painful to confess expensive financial errors to their friends, then the risks associated with being an opportunistic advisor could seem worth taking. A further consideration favouring opportunism is that it is possible to lose clients even after giving 'genuine', 'independent' advice: if one cannot convince clients that their poor earnings are the result of events which a financial advisor could not reasonably have been expected to countenance as possibilities, then one may well end up being seen by them with suspicion. Given this, commission in the hand may look preferable to uncertain repeat business from current clients and from new clients that they might recommend.

Those who favour regulation of intermediaries would want to stress the scope for opportunistic behaviour on the part of employees of financial intermediaries. Financial history is littered with examples of financial failures due to fraudulent activities. These have included cases of quite junior personnel engaging disastrously in unapproved speculation on their employers' accounts--as in the case of Lloyds Bank International (see Dow and Earl, 1982, pp. 156-7)--and doubtful top-level decisions to lend huge amounts to incestuously linked companies--as in the mid-1970s secondary banking crisis in Britain (see Reid, 1982). Such problems can even afflict small intermediaries that operate under the careful supervision of boards of trustees and which are subject to regular audits. As a member of the University of Tasmania's Campus Credit Union, I was myself shocked in mid-1987 to receive a letter recording the 'untimely death' of the Society's executive officer, but this was nothing compared with how I felt some days later when it became clear that it was case of suicide and that, amongst other things, a good tenth of the Society's assets had been misappropriated. One was left wondering how many instances of financial fraud go totally undetected, despite the best efforts of auditors and supervisory bodies: the scope for massaging balance sheets to conceal doubtful loans is considerable; so, too, are the opportunities for pretending that bad debts are being written off when the truth of the matter is that funds are being siphoned away. The limitations of audits are made all too obvious by one survey which found that more frauds were uncovered by information being proffered by vengeful mistresses than by auditors' revelations (Comer, 1985).

Depositors' and shareholders' interests may also be compromised by some of the entirely legal activities of managerial personnel in financial intermediaries. There is nothing illegal about the act of taking a chance and lending money to a very high risk client, even though the person authorizing the loan stands to benefit from its seemingly beneficial short-term implications for the intermdiary's balance sheet. In this connection, some comments in a paper on country risk analysis and the third world debt problem are worth noting:

> Banks became overexposed sometimes because analysts made mistakes but mainly because the analysts' opinions were ignored.... The main reason for ignoring the analysts' view was that it was often incompatible with other goals of the bank, that is, the goals of marketing staff and senior management. Such goals might include keeping the bank in the top league of banks according to asset size or syndicated eurocredit or euroloan involvement, expanding the involvement of the bank in a market important to the banks strategically, the preservation of personal or inter-bank relationships and so on.... It was easy to rationalise the overriding of an analyst's negative view by the convenient argument that unlike companies

which can be declared bankrupt, countries rarely disappear and a bank can usually expect to receive its money back eventually (Jackson, 1987, p. 333).

By the time bad loans surface as such, the senior management who authorized them may well be enjoying prosperous retirements or working for other institutions.

The mention of bad loans is a timely reminder that differences in possible opportunism on the part of advisors and managers employed by intermediaries are but one dimension of the problem faced by a lender. So let us now shift our focus to the task of guarding against defaults and disappointing yields from securities. In doing so, we should recognize the diverse origins of such problems. Some financial failures may be due to genuine bad luck, involving events which could net easily have been foreseen by the lender even if as much pertinent information as possible had been made available by the borrower. Other may arise because of guileful behaviour by borrowers, who at the time of seeking approval for funding deliberately conceal their true circumstances and/or their fears about what could go wrong with their plans. Yet others may be avoidable and nonetheless happen, because borrowers get into trouble during the course of their loans or indulge in questionable business and lenders do not discover what is going on until it is to late. For the remainder of this section, I will try to show why intermediaries may often be able to offer many lenders a better return than they could achieve by paying first for credit rating services and then incurring the costs of fixing up and monitoring a direct loan.

The superiority of intermediated loans does not arise purely because financial package deals enable a lender to engage in 'one-stop-shopping': ex ante and ex post credit rating and security purchasing services can, of course, be provided by a single agent, though an intermediary obviously has the edge in acting promptly in a crisis or in grasping opportunities for capital gains, since action can be immediate with no need to relay information and advice to clients and wait for their decisions. More importantly, one can see why intermediaries may also be able to cut the costs of appraisal, monitoring and obtaining redress from defaulting borrowers. Amongst intermediaries, banks have the most obviously advantageous position: in seeking some idea of likely behaviour of existing cutsomers who are applying for new loans, they can look these clients' previous patterns of credits and debits (mindful, one would hope, of the possibility that previous patterns could have been created deliberately to lull them into a false sense of security!). As actual processors of payments after a loan has been made, banks also stand the biggest chance of being able to spot anything suspicious at an early date. These advantages will be diluted to the extent that bank debtors are borrowing from several institutions, but rival institutions obviously have some incentive to co-operate with each other in trying to keep clear overall pictures of their debtors' situations.

Access to the services of credit-rating firms is restricted further for small lenders by a kind of 'public good' problem. A major worry for these agencies is that their hard-won information may be very easily resold by opportunistic clients, with the result that intelligence costs are not covered. The other side of the coin is that clients will be reluctant to pay the full costs of commissioning special studies if they believe the agency is likely to sell the findings to others. To avoid outright market failure, a rating agency may restrict circulation to a limited clientele of subscribers--preferably firms that have a competitive interest in not selling the information to other firms--who are each willing to pay a relatively fat fee. Only occasionally will such an agency deliberately release major ratings to a wider audience, and then mainly as a means of attracting further subscribers. The result of this is that agents with small amounts to lend are likely to be unable to obtain really detailed information about the circumstances of those to whom they might make direct loans. To get around this problem, they can place their money with an intermediary that does its own credit ratings but does not make its intelligence findings readily available (except to other intermediaries and rating agencies, for the reason outlined at the end of the previous paragraph), and/or which pays for the expensive services of credit rating agencies.

There is one other reason why intermediated lending could look attractive to those with surplus funds, even if they were not impressed with the case so far made. This concerns advantages that intermediaries often have over direct lenders in the matter of enforcing the

terms of loan contracts, promoting high returns where precise levels are not specified in contracts and, if all else fails, in mopping up after financial disappointment has occurred. The last of these affects the first two, since the greater a lender's ability to take action in the event of a default or deteriorating payments performance, the less likely it is that a borrower will knowingly embark upon actions which could give rise to financial difficulties.

A bankruptcy action against a firm may fail to recover much of the money it owes, but it will nonetheless involve some penalities for the firm's managers. Diamond (1984, p. 396) suggests that these include 'a manager's time spent in bankruptcy proceedings, costly "explaining" of poor results, search costs of a fired manager and (loosely) the manager's loss of "reputation" in bankruptcy'. If such penalties for giving one's creditors a bad deal had little chance of being imposed, then borrowers could find opportunistic behaviour very tempting. A transaction cost perspective suggests that if lenders generally sought to hedge their bets by lending small amounts directly to a large number of borrowers, then attempts to obtain redress would be rare events and probably the only significant incentive against opportunism would be the difficulty one might have raising money a second time. The creditors in such a situation might well have rights according to the contracts in question, but the costs of enforcing them could well be prohibitive. To put it simply: they could find it difficult to get together to fight for their money. If their interests were also rather disparate, some might do badly even if they did try to come together, since the borrower might be able to manage a successful policy of 'divide and rule'. By contrast, if the loan had come from a single source or at least involved only a small consortium of lenders or was a relatively straightforward cocktail (for example, a house financed by a first mortgage from a building society, plus a personal loan), then the borrower could face a much rougher time. Intermediaries thus provide means whereby lenders can seek to hedge their bets and at the same time concentrate the minds of the ultimate users of funds on the task of meeting their creditors' aspirations.

The argument just presented can be seen as an extension of one often made in the literature on takeovers and the theory of the firm, when scope for a divorce of control between the owners and managers is being discussed. If individuals typically own only small parcels of shares in a particular firm, transactions cost considerations may prevent even a majority of dissatisfied shareholders from coming together to elect a new board of directors. Considerable personal costs may beset any small shareholder who initiates moves to call an extraordinary general meeting and/or get a large assembly of similarly disaffected shareholders together to vote in a new board. Individual shareholders may therefore prefer to continue to tolerate the situation or quietly sell their holdings. Even if a zealot does decide to shoulder these costs, public choice problems mean it is also likely that many small shareholders will not choose to incur the costs of showing up and voting. Each will realize that their own votes, taken in isolation, are unlikely to be decisive, so voting is something they will choose to do only if they say it as a matter of principle--in other words, because they expect to derive psychological, not pecuniary, benefit from showing up and expressing their feelings (cf. Brooks, 1988, pp. 184-5). An incompetent or opportunistic management team may therefore continue to reign.

The roots of our arguments concerning the superior control and enforcement capabilities of intermediaries compared with direct lenders are worth noting not merely because of their obvious relevance to attempts to understand how management of financial firms may ride sometimes succeed in riding roughshod over interests of their shareholders (a particularly obvious possibility with bodies such as building societies where voting power is intrinsically highly dispersed because each depositor is a society member too). They may also help ensure that we do not exccessively focus our attention on intermediaries as conduits for loan finance and forget their often considerable equity interests. The growth of large shareholdings by 'the institutions' represents a potentially powerful threat to management teams who do not strive to meet shareholder aspirations, and by ensuring that their own nominees attain places on company boards they can also enjoy monitoring advantages. In placing their money with these intermediaries, small lenders may therefore hope indirectly to get round the public choice and transaction cost problems they would

otherwise face in trying to exert leverage over management. Such results are, however, by no means guaranteed. In Britain, for example, many of 'the institutions' used to take the view that they could not expect to be experts in the running of the diverse businesses in which they held equity; so, like small shareholders, they tended to sell out quietly if they were dissatisfied with yields (see Turner, 1969). Such a situation--nowadays rather less prevalent--contrasts strongly with the very active role played by bank representives in the strategic management of German and Japanese enterprises.

If we continue to keep the literature on the modern business enterprise in our sights, it becomes apparent that some qualifications should be made to the arguments in the last three paragraphs: the rise of the large, multiproduct, multinational firm is something which threatens the supremacy of financial intermediaries as bodies able to enforce acceptable performances by those who have been given access to finance. Such firms have been portrayed by Williamson (1970, 1971, 1975) as organizing themselves to function like miniature versions of the external market for capital: their strategic managers watch over the earnings performances and claims for funds put forward by operating divisions that are, in effect, mini-firms within the larger corporate unit. One would expect that, compared with fund managers in the external captial market, the strategists in multidivisional firms would have superior capabilities in respect of auditing and the disposal of poorly performing staff and assets (though as I have elsewhere shown, the 'divide and rule' advantages of the profit-centres philosophy are by no means simple to achieve in practice: see Earl, 1984, pp. 162-72). Such firms may come close to matching many financial intermediaries in terms of the range of business risks with which they deal, and often--as with British Leyland--are politically too conspicuous not to be rescued--or, as with Chrysler, given loan guarantees--by governments should they get into trouble.

For these reasons, the largest non-financial corporations may look more secure to many lenders than most banks do, so they can raise finance directly at lower rates than banks would need to charge to cover costs of attracting deposits. The sheer enormity of their financial activities enables them to spread very thinly the set-up costs associated with floating new loan stocks. Corporations with temporary financial surpluses can for the same reason cheerfully incur the costs of lending their funds directly, even for short periods (for example, by purchasing Eurobonds issued by other firms, and subsequently selling them when they need to increase their spending). It is no surprise that many, including IBM, Volvo, Xerox and BP, have developed their own in-house banking arms that function as profit centres in their own right.

6. STRATEGIC ASPECTS OF FINANCIAL INTERMEDIATION

So far, I have taken it for granted that the market for loans is a dangerous place where diversification pays. But I have said nothing on the issue of how far an intermediary should diversify its portfolio, even though I have emphasized the fact that any lender needs skills in judging the behaviour of those with whom it deals. Extensions of transaction cost economics into the area of corporate diversification have been undertaken by Kay (1982, 1984) mainly in the context of manufacturing business. These seem useful for making sense of the evolution of firms in the financial services industry.

Kay has been concerned with the relationship between transaction costs, diversification policies and changes in the characteristics of the environments in which firms operate. If unpleasant surprises were rare or could be covered through some form of low cost insurance, one would expect firms to concentrate their expertise and physical resources in highly specialized market niches. In an environment of this kind, firms that dared to spread their talents across a variety of fields would be the vulnerable ones, for they could be undercut by those that ruthlessly pursued the advantages of doing one thing well. In a turbulent world, where markets are prone to vanish without warning and technological change can render fixed capital obsolete overnight due to fickle consumer tastes, technical progress and changes in government policy, it pays to diversify and avoid 'putting all one's

eggs in one basket'. It is unwise to try to survive as a specialist in a marketplace where such 'muggings' (to use Kay's vivid terminology) are commonplace unless one possesses resources that can be switched easily to other markets if the going suddenly gets tough or which remain in demand despite the changes that are taking place. (Swiss watchmakers survived the advent of the quartz watch because Far Eastern producers could not match their skills in crafting elegant and fashionable timepieces, the mechanical movements of which could be replaced with the new technology.)

If we think about financial markets from this perspective we would expect that economies can be obtained from specializing in related kinds of lending: either similar kinds of loans ('housing', or to a particular industry, for example), or loans to a select group of customers who need to borrow for a variety of purposes (such as a particular locality of borrowers). By initially investing in understanding a particular market in some detail, an intermediary can reach subsequent loan decisions at lower cost, and the same goes with knowing particular borrowers in a given market. However, that knowledge will never be complete, so sometimes mistakes will be made and, insofar as the loans are related, the spill-over effects of mistakes may be great. If the economic environment is highly turbulent, the risks to a financial intermediary of specialization on either side of its balance sheet may be considerable.

Incentives for financial intermediaries to diversify their interests and regional coverage have been changed dramatically in the past decade or so: by deregulation--which has removed barriers between markets and changed the relative transaction costs of different ways of arranging borrowing and lending; by new technologies that have broken down barriers between international financial markets, reduced the costs of individual transactions and greatly increased financial firms' fixed capital requirements in terms of computing facilities; and by the entrepreneurial initiatives of those who developed new financial 'products' to cater for the demand for protection against inflation and fluctuations in interest rates, commodity prices and exchange rates. Increasing regional disparities associated with changes in industrial structure also threaten to change the relative strengths of regionally localized and diversified firms: for example, as the UK became an economically divided nation under the Thatcher regime, the Scottish banks and northern building societies could be excused for looking enviously at the prospects of their counterparts in the booming south of England. It is clear from the recent books by Coggan (1986) and Hamilton (1986) that the recognition by financial firms that their environments are becoming more turbulent and their established roles no longer seem secure has led them to pursue a variety of offsensive and defensive strategies. That it is by no means easy to decide upon appropriate strategies is something which is evidenced both by this variety and by the proliferation of 'how to' books on banking strategy, such as Aspinwall and Eisenbeis (1985), Donnelly *et al.* (1985), Gart (1985), Meiden (1984) and Nadler and Miller (1985). Among the most popular strategies are the following:

(1) Geographical Expansion

Sources of assets and liabilities may be expanded by moving into new territory: interstate, or internationally. Such policies may bring benefits of diversification and marketing synergy (in other words, where the joint returns of having a set of activities conducted under a single corporate banner are higher than the sum of retuns that could be achieved if they were conducted separately). For example, consider a building society based in an area where employment opportunities suddenly collapse due to a change in technology or a fall in world commodity prices for its main output. It could find itself in trouble if the people started leaving the area or began to run down their financial assets: house prices (and hence the value of loan collateral) would get depressed and the unemployed might default on loans simultaneously with there being a drain on deposits. Such an institution would could face difficulties in the form of a trading loss if it tried to reduce its deposit withdrawal risks by offering higher rates of interest on long-term deposits. By expanding the range of its branch network, it stands to be in areas of growth as well as of decline as the industrial structure changes. Moreover, when clients transfer geographically in search of richer employment

pickings, they may well simply transfer their deposits between branches rather than go to the bother of starting up afresh with an unfamiliar intermediary whose standards of service might turn out to be inferior, particularly since such an insitution may need convincing of their track records as credit-worthy clients and worthwhile depositors and may not immediately offer to make mortgages available. Synergy themes are all the more conspicuous at the grander level of multinational banking, where client corporations can be promised assistance when they embark on new trade ventures or set up subidiaries themselves in countries where their bankers already have operations: glossy advertisements placed by multinational banks in the financial press almost invariably try to convey the message that there are advantages to be had from dealing with a bank that is as global in its perspectives as are its clients.

Synergy considerations in no way imply that such banks must necessarily own their overseas operations to present a uniform face to jet-setting executives of client companies and access a worldwide financial database. A bank could instead follow the kinds of strategy employed in the international hotel business (see Dunning and McQueen, 1982) or by McDonalds (see Love, 1986) and arrange franchising and agency deals with other deposit takers and lenders, for the use of its name, corporate image, buying power, information facilities and, if necessary, management expertise, without assuming its franchisees' business risks and without having to incur the costs of setting up operations for itself. The use of agents has, of course, been quite common when financial intermediaries have sought to expand their presence on a national basis: for example, building societies have often used real estate firms as deposit-taking agents, particularly in thinly populated areas where considerable spare capacity would exist in a specialist office; similarly, major credit cards such as Visa obtain global coverage through the participation of an remarkably diverse set of intermediaries, ranging from large banks to small credit unions.

Given the problems of coming to terms with different languages, legal and socio-economic systems, it may at first seem curious that banks so often seem to prefer to do things themselves in the international context. However, our earlier discussions concerning the effects of possible opportunism by agents on the choice between intermediated and direct lending seem ripe for extension to this context: it would be reasonable for parties on both sides of franchising and agency arrangements to hold fears about each other possibly behaving in an opportunistic manner. Just as high technology firms tend to operate as multinationals to prevent licensees from exploiting non-product-specific information in new contexts (see Galbraith and Kay, 1986; Kay, 1984), so domestic banks may be expected to be unwilling to provide, even for a fee, flows of information to overseas rivals who might be able to use it as a basis for invading their territories. Likewise, just as poor service in one McDonalds restaurent can impact upon the sales of others, so network-wide goodwill losses may be suffered if a financial agent, working on behalf or under the corporate logo of a multibranch operator, disappoints customers by acting in its own local interests. To guard against such possibilities, exceedingly complex franchising and agency contracts could well be needed (possibly running into thousands of pages of regulations, given that the McDonalds franchising manual, for a far simpler product, runs into hundreds). The use of agents and franchise arrangements could also make it hard to provide guarantees of confidentiality as convincing as those that a unified banking operation can provide to its multinational customers.

Taken together, the risks of operating in unfamiliar territories, the problems associated with using the services of other firms and the additional costs of having to engage in competition for market share make it easy to see why geographical expansion has commonly been conducted via merger. That even the merger route has problems is well indicated by the heavy losses the British Midland bank suffered from its subsequently disposed of US subsidiary, Crocker National--though these should have hardly been surprising, given that Crocker had absorbed the failed United States Bank of San Diego shortly before being taken over by Midland. To judge from a study by Tschoegl (1982) of foreign bank entry into California and Japan, many banks must be aware of the hazards of

such headling plunges, for they have often use of the scope for making gradual moves into foreign territories, though their choices of transactional framework have been somewhat constrained by host country regulations. It has been common for banks initially to confine themselves to the wholesale and corporate markets, first setting up an intelligence-gathering representative office that also solicits new business and liaises with host country operators who have borrowed from the head office. Somewhat greater commitment can come with the creation of a self-owned agency (as distinct from a subcontracted agent) to make loans and arrange overseas deposits for host-country clients, and it may then be quite a time before decisions are taken to open retailing branches to take local deposits or set up legally independent subsidiary companies.

(2) Market Penetration

Given the resource requirements and possible pitfalls of moves into strange territories, it should be no surprise that many financial firms have preferred to concentrate their efforts on encouraging higher usage rates of existing services, or winning new customers of their normal kind. The success of the building societies' attempts to build user-friedly images and the successful use of advertisements in attempts to change attitudes towards indebtedness are things upon which I have commented elsewhere (Earl, 1988). The smaller intermediaries have largely ridden on the backs of larger ones as far as the latter possibility has been concerned, but they have tried to win market share by offering chequing facilities, bill-paying services, longer opening hours and even chances to lottery prizes by making new deposits. The operating costs associated with such strategies may mean they turn out to be very expensive loss leader policies indeed if all they succeed in attracting are depositors who keep short term, small scale balances.

(3) New Market Strategies

Recent metamorphoses of financial intermediaries have included changes of focus within the world of finance--such as the acquisition of broking and merchant banking groups by major banks and insurance companies--and movements into other arenas--such as travel--where they can exploit their skills in the handling of information and acting as agents and offer their customers a bigger variety of products without having to open up new retail outlets. As with some cases of geographical expansion within a firm's normal range of focus, these moves have sometimes been quite traumatic. For example, American Express had internal problems during its attempts to build up a base in international capital markets by taking over Shearson Lehman and the Trade Development Bank of Switzerland. Such difficulties should be expected if the moves involve integrating businesses with entirely different orgnizational structures and corporate cultures, and even if a firm seeks to avoid them by growing internally, there may still be trouble due to insufficient knowledge of how to make goods loans in a new area. (For example, what would building society managers know about loan-making to small firms if they were suddenly allowed to do so by further deregulation?)

(4) Cooperation Between the Smaller Fry

To the extent that such offensive strategies do not cause problems for firms that pursue them, one would expect those whose positions are thereby squeezed to seek out new problem-solving policies of their own. Obviously, the best form of defense might be attack, but this could be very dangerous for the small institution that lacks economies associated with large size, particularly those associated with the technological revolution in payments systems (see Lawrence and Shay, 1986, Ch. 2). The major banks may well see their common opportunistic interest can be served if they indulge in implict collusion and each refuse to allow smaller institutions to pay to hook up to their computer networks. To some extent, these difficulties are mitigated by the advantages of being able to avoid mistakes conspicuously made by pioneers with new technologies. Economies may also be achieved by consortium relationships (for example, a Union of Credit Unions or an Association of

Savings and Loan Associations) that share or swap facilities such as computing systems and automated teller machines and yet, by stopping short of outright merger, enable the participants to continue to offer the kinds of personal service that have in the past given themselves a competitive edge against the big operators. Another possibility--to which small fry might be alerted by the larger scale example of how the creation of Chase-AMP Bank Ltd. enabled Chase Manhattan to enter the Australian retail banking market and the Australian Mutual Provident Society to make use of synergy potential inherent in its reputation and infrastructure--is to create a joint venture company to run a shared system. The main thing that would tend to get in the way of such cooperative arrangements would be inequalities of costs and benefits felt by the various parties. If negotiations on this score failed, one would expect to see some smaller institutions concluding voluntary mergers, in which they hoped holistic considerations would prevail, and others attempting to find the least unsatisfactory large bank into whose balance sheet and organizational structure to become absorbed.

(5) Rationalization
With the advent of a more competitive financial environment, some institutions have been driven to appraise carefully what their 'loss leader' policies are actually costing: even the major banks can be seen doing this as, according to the latest buzz-words, they 'unbundle' their charges for services on a 'user pays' basis. But it is by no means easy to decide which services to phase out in a business where one is providing a whole range of services to customers who use them in different degrees. Where banking staff are not permanently rushed off their feet, almost any small transaction can be argued to be making a contribution to overheads or long run goodwill. An alternative perspective might suggest that ways should be considered to cut overheads by slimming down the organizational hierarchy, consolidating nearby branches, and so on. Branches that are poor performers are problematical as possible victims of a rationalization purge: insofar as they are linked in their transactions with the 'successful' ones, their demise may undermine the whole system, just as a railway system may not be viable without 'loss-making' branch lines to act as feeder routes for their mainline activities. Here, though, institutions may be able to close branches with minimal losses by subcontracting business to agents in the areas from which they are retreating, or by replacing staffed branch operations with automated teller machines.

(6) Niche-Marketing
For some financial firms, a return to earlier policies of specialization may seem to offer the best prospect for survival, particularly if resources are not available to copy offensive strategies of rivals. Market 'interstices' (as Penrose, 1959, calles them) may tend to be neglected by large intermediaries that recognize the managerial limits to infinite growth and can see profitable ways of using their resources in the 'big time' of, say, international banking. If this neglect and the intersticies themselves seem likely to be a long-term phenomena, then, by specialising in a few of them, a small non-bank financial intermediary may be able to drive out those of its similarly-sized rivals that dilute their expertise by hedging and hoping for expansion in a larger number of markets.

7. CONCLUSION

The bottom line of this paper's transaction cost perspective on the organization of financial flows is both straightforward and highly non-deterministic: given the inherent ignorance, uncertainty and complexity in the business of lending, we are likely to observe wealth-holders, financial institutions and other borrowers experimenting in this area with a wide variety of strategies and with varying degrees of success. To conventional monetary economists, this may seem a terribly disappointing end result of such a lengthy discussion. At no point, however, have I promised to provide predictions about the way in which the

financial system will evolve. My main intention in this paper has been to help readers shed any tendencies they have towards an exclusive focus on 'banks' (or even banks plus non-bank financial intermediaries) as conduits for finance. Such a focus may lead to misleading views of the scope for controlling aggregate demand via the traditional instruments of monetary policy: in a deregulated monetary environment, it is difficult enough to control the growth of 'bank' lending, but success in achieving monetary targets is of dubious merit if it promotes further growth in financial disintermediation. The conventional philosophy of ignoring the diversity and transactional subtlety of possible modes by which finance may be made available may also divert attention from the scope for financial instability that may arise from the ways in which firms respond to pressures to take greater risks in order to meet their clients' aspirations.

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