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Concept paper on effects of finance on industry
under different financial systems

Malcolm Sawyer

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Concept paper on effects of finance on industry under different financial systems

Author: Malcolm Sawyer

Affiliations of authors: The University of Leeds

Abstract The paper starts with the role of banks in the provision of loans and money creation. The terms and conditions on which credit, loans and funds are provided by the financial sector to industry are of obvious importance. It is an inevitable feature of the provision of credit, loans and funds that the lender is concerned over the risks of default, late payment and non-performing loans. It is then an inevitable feature that credit ratings are made by lenders, with consequent effects on cost and availability of funds. The level of interest rate (and other charges) on loans is a further obvious matter of concern for industry, and a brief review of the mark-up applied by banks is provided. A financial system is built on institutions of which banks of different forms and equity and bond markets are major elements. The bank-based vs. market based financial systems is drawn upon to compare the operations of banks and of stock and bond markets with regard to industry. Particularly, although not confined to, when the financial institutions are the owners of equity and bonds, then there are issues of corporate governance, objectives and motivation and re-structuring arising.

Key words: industry, financial systems, credit rationing, bank-based, market-based

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Contact details: m.c.sawyer@lubs.leeds.ac.uk

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1. Introduction

The focus of this paper is on the ways in which the nature of the financial system impacts on industry and its development. In Sawyer (2014b) the propositions that financial development and economic growth were positively related were examined, and the question of the causal nature of the relationship discussed. In this paper, a range of general issues on the relationships between the financial sector and industry are reviewed, and in particular the terms on which finance is supplied to industry, the effects which the conditions of the supply of finance have on the operations of industry. Industry is broadly defined to include primary, secondary and tertiary sectors of the economy: in effect the focus is on the production side of the economy (and hence not on households or government). The financial sector provides finance and funds to industry. It, of course, draws on funds from the household sector and can be viewed as an intermediary between households and industry. The financial sector can be viewed as a conduit through which funds flow from households to industry. As such the financial sector is potentially equivalent to the market for loanable funds in which the supply of funds depends on savings and the demand for funds on investment requirements, and the market is equated through the 'natural rate of interest'. A crude representation along these lines has permeated into some of the debates (e.g. that on 'financial repression'). This view has a strong efficiency tone to it with savings and investment allocated through a competitive market perspective – or at least the linking together of savings and investment is represented as though that linkage was akin to a competitive market in which prices (here rate of interest) are given by the market to the individual economic agent and in which there is anonymity of buyers and sellers. This representation, of course, plays down the role of the financial sector as a (more than) significant agent in the allocation of funds.

This view has (at least) four shortcomings. The first is that it is located in a 'loanable funds' framework, and does not incorporate the role of banks as not only providers of loans but thereby creators of money (in the form of bank deposits). The second is that it presents the relationships involved as in a competitive market – which has the characteristics of homogeneity and anonymity—thereby neglecting the roles of credit

rationing (as discussed below). The third is that it is the financial sector which is the immediate supplier of funds to industry and as such has impacts, indirectly or directly, on the governance of firms in the industrial sector. The fourth, which is related to the third, is that the financial markets can play a major role in the re-structuring of industry through facilitating mergers and acquisitions.

The paper is organised around addressing each of those four features. It starts in section 2 with the role of banks in the provision of loans and money creation, which is viewed in terms of the impact on the overall level of economic activity (rather than its composition which is discussed later).

The terms and conditions on which credit, loans and funds are provided by the financial sector to industry are of obvious importance. It is an inevitable feature of the provision of credit, loans and funds that the lender has to be concerned over the risks of default, late payment and non-performing loans. It is then an inevitable feature that (formal or informal) credit ratings are made by lenders, with consequent effects on cost and availability of funds. The roles of credit rating and credit rationing are then discussed in section 3.

The level of interest rate (and other charges) on loans is a further obvious matter of concern for industry, and the subsequent section 4 is a brief review of the mark-up applied by banks.

A financial system is built on institutions of which banks of different forms and equity and bond markets are major elements. The discussion of different financial systems has often drawn on the distinction between bank-based and market-based financial systems (see Sawyer, 2014a for a critique). In this paper we draw on some of that literature to compare the operations of banks and of stock and bond markets with regard to industry: and this forms section 5.

Particularly, although not confined to, when the financial institutions (here, for example, insurance companies, pension funds, mutual funds) are the owners of equity and bonds, then there are issues of corporate governance, objectives and motivation and re-structuring arising. This is discussed in section 6.

2. Banks and loan creation

This section focuses on the role of commercial banks, that is those financial organisations whose liabilities (i.e. bank deposits) are generally accepted as means of payment, and are transferable between individuals. The general roles of the financial institutions which are often labelled banks more broadly defined are considered below. From the view point of the industrial firm, it may be of little significance whether a loan received is money creating or not. However, from the macro-economic perspective, and the general levels of investment and economic activity, the provisions of loans by commercial banks are of particular significance. In the words of Kalecki: 'the possibility of stimulating the business upswing is based on the assumption that the banking system, especially the central bank, will be able to expand credits without such a considerable increase in the rate of interest. If the banking system reacted so inflexibly to every increase in the demand for credit, then no boom would be possible on account of a new invention, nor any automatic upswing in the business cycle. ... Investments would cease to be the channel through which additional purchasing power, unquestionably the spiritus movens of the business upswing, flows into the economy' (Kalecki, 1990, p.489).

The loan processes of banks can be sources of instability in the economy, and this can be illustrated by reference to the notion of the 'financial accelerator' where the lending activities of the banks create feedback loops. We also set out some of the ideas on which the 'financial accelerator' literature draws, as those ideas have been more generally used, and illustrates some more general aspects of the relationships between banks and industry.

The theory of the 'financial accelerator' underlying this has been set out as:

'First, external finance is more expensive than internal finance, unless the external finance is fully collateralized. The higher cost of external finance reflects the agency cost of lending (the inevitable deadweight loss that arises because of asymmetric information.'

Internal finance presents other advantages additional to lower cost than external finance for corporations including avoidance of interference in management and in

monitoring which external finance often involves. It also means that savings out of profits (retained earnings) are directly deployed in the company concerned rather than being reallocated through market and other mechanisms.

'Second, given the total amount of finance required, the premium on external finance varies inversely with the borrower's net worth, which we define as the sum of his internal funds (liquid assets) and the collateral value of his illiquid assets'. This has echoes of Kalecki's principle of increasing risk which is discussed below. Here we can reflect on the remarks made by Kalecki that 'of decisive importance in limiting the size of a firm: the amount of entrepreneurial capital, i.e. the amount of capital owned by the firm. The access of a firm to the capital market, or in other words the amount of rentier capital it may hope to obtain, is determined to a large extent by the amount of its entrepreneurial capital' (Kalecki, 1990, p.277).

'Finally, a fall in the borrower's net worth, by raising the premium on external finance required, reduces the borrower's spending and production. This last result is the heart of the financial accelerator: To the extent that negative shocks to the economy reduce the net worth of borrowers (or positive shocks increase net worth), the spending and production effects of the initial shock will be amplified' (Bernanke, Gertler and Gilchrist, 1996, p.2).

The availability of credit and the terms on which it is supplied change through the business cycle. It is then illustrative of the general idea, to which we return below, that the terms on which credit is offered depends on perceptions of the default and other risks involved. This general idea can be applied over time through the business cycle (as in this case of the 'financial accelerator') and across types of economic agents as is considered below.

These three ideas express some aspects of the relationships between the financial sector and industry, and the generation of cycles through the interactions of provision of finance and the demand for investment. But these ideas also point to the importance of internal finance over external finance, and the limits on the size of the firm coming from ability to borrow. The 'financial accelerator' approach is developed in the context of loans and interest on debt (along with risk ratings), which relates it more to the

banking system than the workings of the stock market. Bernanke et alia also point to the role of inter-bank lending and lending to households as further elements in the workings of the 'financial accelerator' .

The creation of credit and loans by banks (and thereby at least temporarily increases in the stock of money in the form of bank deposits) plays a significant role in the generation of economic fluctuations. From the finance motive (Keynes, 1937a) spending power (money) has to be held prior to expenditure taking place, and the creation of spending power through credit and loans is required. The generation of economic fluctuations arise from the interactions between the fluctuations in demand, notably that coming from investment and the willingness or otherwise of banks to provide loans (and on what terms).

Banks can be viewed as collecting together the savings of households in the form of bank deposits and allocating funds to borrowers. This plays down the role of banks in the creation of money through the loan processes, but (using the circuitist terminology) banks are providers of 'initial finance' and also the allocators of 'final finance'. Whatever the causal relationships between savings and investment, and between loans and deposits are taken, banks are making loan and credit decisions. Are the banks better situated to make such decisions -- as compared with, for example, direct supply of funds by households to firms (perhaps aided by credit rationing agencies as in the emerging peer-to-peer lending and crowd funding) though those are still mediated through what may be seen as financial institutions.

Financial markets can be viewed in terms of linking savings with the funding of investment through equity issues, but involving the possibility that asset price bubbles in the trading of existing equity may occur. However, the latter is unlikely to develop without some expansion of credits provided by the banking system. In the bank-based system, the provision of loans enables investment to be financed ahead of savings and financial fragility comes from the evolution of credit provision, leverage and debt repayments.

It is also relevant to consider equity and other asset prices, and the generation of asset price inflation and price bubbles. The point was made above that the savings which

has been made in terms initially of an increase in holding of money soon seeks outlets in the acquisition of financial assets: at the level of the individual that can be the acquisition of new assets or existing assets. The portfolio decisions being made by 'new savers' will not in general match the portfolio of financial assets which are being made available. For example, 'new savers' may have wishes to place their funds into equity to a greater extent than the combination of existing and new issues of equity. The flows into the equity market would be influenced by perceptions of the returns on holding equity including dividend payments and capital gains. At this point we do not propose to advance a theory of equity pricing! – but rather simply point that within a circuitist framework asset price inflation (or indeed deflation) and price bubbles can be accommodated from consideration that after investment occurred, savings takes place which feeds into the financial markets.

3. Credit allocation and rationing

Whilst households and firms are the savers and in that sense the providers of funds, the proximate suppliers of credit, loans and funds to industry are the financial sector and institutions. It is then the case that the monitoring of loans etc. lies in the hands of financial institutions; and corporate control ceded to the financial institutions. What are the implications of that?

The banking and other parts of the financial system can be viewed in terms of their allocation of loans and other lending, the assessments of risks and the monitoring and enforcement of loan contracts. This can be indicated through the following considerations on the role of banks: banks aid the (i) acquiring information about firms and managers and thereby improving capital allocation and corporate governance ... (ii) managing cross-sectional, inter-temporal, and liquidity risk and thereby enhancing investment efficiency and economic growth ..., (iii) mobilizing capital to exploit economies of scale ... Thus, the bank-based view holds that banks— unhampered by regulatory restrictions on their activities – can exploit scale economies in information processing, ameliorate moral hazard through effective

monitoring, form long-run relationships with firms to ease asymmetric information distortions, and thereby boost economic growth.' (Levine, 2002, p.2)

In contrast, 'the market-based view highlights the growth enhancing role of well-functioning markets in (i) fostering greater incentives to research firms since it is easier to profit from this information by trading in big, liquid markets ..., (ii) enhancing corporate governance by easing takeovers and making it easier to tie managerial compensation to firm performance ..., and (iii) facilitating risk management. ... Levine, 2002, p. 3). In this section, we focus on the pricing and availability of credit. In subsequent sections return to issue of corporate governance etc.

Financial institutions provide credit and finance to non-financial institutions and households (and also government). The relationships between financial institutions and non-financial institutions may be viewed (as in some mainstream analyses) in terms of market relationships in a perfectly competitive market where there is trade under conditions of anonymity and tendency to uniformity of price. But 'interest rates are not like conventional prices and the capital market is not like an auction market.' (Stiglitz and Greenwald, 2003, p. 26). Indeed 'a central feature of the Arrow-Debreu model is the anonymous nature of markets ... However credit is totally different. ... The terms on which credit will be supplied will depend on judgements about the likelihood that the loan will be repaid' (Stiglitz and Greenwald, 2003, p.30). Thus the relationship of banks with customers involves aspects of a market relationship, but also significant departures from the anonymous relationship portrayed in a perfectly competitive market. From this perspective, the nature of the relationships between financial institutions and customers becomes highly relevant for the ways in which finance and credit are provided, on what terms and to whom, and the monitoring and other efforts of financial institutions to ensure the repayment of loans. It is then in the nature of credit that there will be what may be termed credit rating and pricing of credit which reflects assessment of likelihood of default (partial or total). 'Not only may informational problems give rise to credit rationing, they may also give rise to equity rationing: firms act as if they cannot raise additional equity capital. Empirically, there is considerable support for this conclusion ... even in well-developed countries, a

relatively small fraction of new capital is raised through new equity' (Stiglitz and Greenwald, 2003, p.34).

The phrase 'credit rationing ... in the early New Keynesian literature [is used to] to identify the possibility that an equilibrium might exist in the credit market but where some individuals would be unable to borrow funds even though they were willing to pay this equilibrium rate' (Rotheim, 2006, p. 307) . This arises (as will be briefly elaborated) when the supplier of credit (e.g. bank) sets the price (interest rate on credit) at which they will trade. 'The object of this paper is to show that in equilibrium a loan market may be characterized by credit rationing. Banks making loans are concerned about the interest rate they receive on the loan, and the riskiness of the loan. However, the interest rate a bank charges may itself affect the riskiness of the pool of loans by either: 1) sorting potential borrowers (the adverse selection effect); or 2) affecting the actions of borrowers (the incentive effect). Both effects derive directly from the residual imperfect information which is present in loan markets after banks have evaluated loan applications. When the price (interest rate) affects the nature of the transaction, it may not also clear the market' (Stiglitz and Weiss, 1981, p.393). Stiglitz and Weiss (1981) argue that there could well be an interest rate (on loans) at which the expected return to the bank is maximised. A higher interest rate would in the view of the bank lead to lower expected return as the default rate on loans would increase through the adverse selection and incentive effects on borrowers. There is then credit rationing in the sense that the demand for loans exceeds the supply of loans (at the interest rate). As an aside it could be noted that this may have implications for the operation of monetary policy in that a change in the policy interest rate of the central bank may not involve a corresponding change in the interest rate on loans. The significance of this is that in a loanable funds approach (where the Stiglitz and Weiss analysis is located) this would imply that the demand for investment funds would be in excess of the supply of savings, and that through credit rationing investment would appear to be savings constrained. In the conventional portrayal of savings and investment as positively and negatively related with the rate of interest (bearing in mind that savers receive less than, and investors pay more than the policy

interest rate), then the actions of the financial sector through this credit rationing approach would lead to savings and investment below a 'competitive market' equilibrium.

'We reserve the term credit rationing for circumstances in which either (a) among loan applicants who appear to be identical some receive a loan and others do not, and the rejected applicants would not receive a loan even if they offered to pay a higher interest rate; or (b) there are identifiable groups of individuals in the population who, with a given supply of credit, are unable to obtain loans at any interest rate, even though with a larger supply of credit, they would.' (pp. 394-395).

The financial sector operates in the provision of funds to industry to favour some types of firms over others. It is a frequently expressed argument that there is, in some sense, a lack of funding for small and medium sized enterprises. In a similar vein, research and development activities may not secure sufficient funding from external sources. A major and obvious difficulty here is the finding of the appropriate benchmark against which to judge whether there is the right level of funding for say small and medium sized enterprises and at the 'right price'. In a world of risk where the probability of default by a given category of borrowers is well-established, it would be rather straightforward to assess whether banks were using the correct information, though asymmetric and moral hazard problems would blur the picture. In a world of fundamental uncertainty there is not a firmly established benchmark of the likelihood of default by a borrower. The likelihood of default has to be assessed by the borrower without a clear benchmark of what that likelihood is.

Credit rationing immediately gives rise to a range of questions. Information has to be obtained, collected, assessed and analysed, and what is regarded as information? The manner in which information is assembled and assessed (particularly where information is necessarily asymmetric and in a world of uncertainty information is more perception than confirmed knowledge) is significant for how credit is rationed – how is it determined who receives and does not receive credit (and in a loan driven banking system how much credit is generated)?

It is widely recognized that the allocation and generation of credit cannot be understood as involving a perfectly competitive market where both suppliers and demanders face parametric prices, and more significantly there is the assumption of anonymity of both sellers and buyers in the trading of homogenous commodities. The providers of loans (and funds more generally) will for rather obvious reasons have concerns over the credit worthiness of the borrower and the perceived likelihood of repayment of loan and interest. Since endogenous money is introduced into the economic system through the loan process, the conditions under which in effect money is created have to reflect the conditions under which loans and credit are provided. But further since loans are taken out for the purpose of expenditure the nature of the economic agents who take out loans and the purposes for which they do so are significant for the ways in which the financial and real sectors interact. The availability of loans as far as an economic agent is concerned will be subject to the 'principle of increasing risk' (Kalecki, 1937) which applies to all forms of lending. In his words, the cost of finance facing the individual firm where 'the entrepreneur is not cautious enough in his investment activity, the creditor who imposes on his calculation the burden of increasing risk, charging the successive portions of credits above a certain amount with a rising rate of interest' (Kalecki, 1990, p.288).

The credit allocation processes depend on risk assessments which in an uncertain world can only be perceptions of frequency of default etc., rather than based on well-established probability distributions. There have been many large literatures on how banks and other financial institutions approach lending to different social, ethnic groups and gender and in effect discriminate against some and practice financial exclusion. There are other literatures on lending to SMEs (small and medium size enterprises), lending for innovation, research etc., which have tended to express concerns over the lack of finance for those type of firms and activities.

A range of issues can be illustrated by considering the effects of perceived likelihood of default (partial or total) of lending on costs of finance. A simple formula for interest rate on say a one year loan is used here to illustrate. Let us label p as the perceived likelihood of default: for simplicity we work with total default rather than allowing for

partial default, late payment etc.. The relevant perceptions of the risks involved are those held by the lender. In a world of Keynesian/Knightian uncertainty, this is not to be interpreted as a known probability of default. In a world of asymmetric information, it is based on the information, knowledge and perceptions of the lender, which will differ from the information etc. which is in the minds of the borrowers. With r as the rate of interest charged on loan, the expected return for the lender is then given by $(1 - p).(1 + r) - p$. We label the cost of funds for the lender to be c . For the lender's pricing decision with regard to the rate of interest to be charged on the loan is viewed in terms of a mark-up of expected returns as a mark-up over costs. This gives $(1 - p).(1 + r) - p = (1 + m)c$, and then

$$(1) \quad r = (1+m).c/(1-p) + 1 - p/(1 - p) = [(1+m).c + p]/(1 - p) + p/(1 - p).$$

Not surprisingly, the derivative of r with respect to p is positive. The demand for loans (or the willingness to take out loans) could be expected to be related to the interest rate being charged, and the potential lender's assessment of the rate of return on investment. There can readily be effective credit rationing in the sense that the interest rate to be charged on a formula such as that in equation (1) far exceeds any possible return on investment.

The allocation and price of loans is then in the hands of the financial sector as it is their assessment of the equivalence of the parameters of equation (1). At a conceptual level, and with specific regard to the operation of the banking sector, it is only possible to add some general remarks on the ways in which the credit rationing would impact on industrial sectors. A general point to make is that decisions on credit rationing have strong elements of being self-fulfilling. Types of firms which are perceived to pose threat of relatively high default rates would be either charged high rates of interest or in effect denied credit, which create conditions in which success is more difficult.

The pervasiveness of credit rationing extends across all types of financial systems. Financial systems and sub-systems will differ in how credit rationing is dealt with, how it impacts on who receives credit and at what price. Two broad comments may be made. The first is that financial systems develop what appear to be discriminatory

practices through favouring some groups over others in their credit rating assessments. The discrimination can be along ethnic lines, gender, area of residence etc..

Block (2014) argues that 'if a financial system needs gatekeepers, everything hangs on the decision rules that those gatekeepers employ to evaluate creditworthiness. In the past, gatekeeping positions in the United States were filled largely with upper-class individuals who had gone to the right schools and knew all the right people. It was simply common sense for these gatekeepers to define creditworthiness in class terms; the closer an individual

came to the manners and styles of upper-class men, the more creditworthy they were seen to be. If they were female, from a minority group, or working class in origin, then they were obviously less creditworthy.

Potential entrepreneurs from disfavored groups were then forced to find other ways to borrow the capital they needed. Certain ethnic groups developed parallel financial institutions or used informal mechanisms, such as rotating credit associations, to finance business efforts. In the worst case, they might resort to desperate exchanges with predatory lenders whose terms would significantly reduce the probability of business success.' (p.15)

The second is that relational banking and similar arrangements develop to aid credit assessment and to ease monitoring issues. Causal observation suggests that the nature of the relationship, e.g. short-term vs. long-term, spot market vs. contractual, between banks and (potential) borrowers differ substantially between countries. The ways in which the monitoring and assessment issues are addressed clearly differ substantially between financial systems.

These ideas on credit rationing have in our view two particular sets of implications for industry (and the economy more generally). The first relates to the over-all levels of savings and investment (and thereby the level of economic activity). The credit rationing approach of authors such as Stiglitz and Weiss (1981) argues that the actions of banks and other financial institutions in credit rationing will set interest rates such that investment is constrained below what firms would wish to undertake, and

translated to the economy level investment will be savings-constrained. A lower level of investment would result, leading to lower economic activity, and lower savings. However that approach is located in a loanable funds view. Considering banks as loan providers and money creators still places banks as central for the provision of finance for investment, and again the levels of investment and economic activity are dependent on banks' loan decisions.

The second relates to the ways in which banks and other financial institutions assess credit risk in a world of asymmetric information and uncertainty. The assessment of those risks will set who receives credit and at what price. In a world of uncertainty, where the possibilities of failure of loans and their repayment are not pre-determined and are subject to assessment by the credit providers, there is a lack of bench-mark as to the effectiveness of that assessment.

4. Mark-ups

The financial sector can be viewed as standing between households (as savers) and firms (as investors). This has been the general portrayal (as, for example, in most of the bank-based vs. market-based financial system literature), though (as to some degree we have argued in Passarella Veronese and Sawyer, 2014) this portrayal is now (and probably has been for a long time) inadequate. Specifically in the financialisation era we see a tendency towards growth of consumer (hence household) debt and growth of savings out of profits often ahead of investment. These two tendencies may be interlinked with in effect the savings by corporations ahead of investment seeking a home.

There has, of course, been a long-standing tendency for the use of retained profits to fund investment, and hence for a substantial part of an economy's savings to in effect by-pass financial markets. It has also (as reflected in the earlier discussion) long been recognised that corporations find internal finance less expensive than external finance, and for that and other reasons have preference for the use of internal rather than external finance.

The focus of attention in this section is on the 'wedge' between the (average) interest rate (or equivalent) paid to savers and the (average) interest rate paid by borrowers (whether households or corporations).

The banking system in respect of loans can be viewed in terms of setting interest rate on loans (for given credit-worthiness) as a mark-up over costs. In the context of the operation of monetary policy, the costs are taken as aligned with the central bank policy rate, and the mark-up can be viewed in terms of 'liquidity preference'. The manner in which the banks respond to a change in the Central Bank policy rate has been viewed as an important ingredient in the transmission mechanism of monetary policy. The new Keynesian credit rationing approach discussed above suggests that the pass through from the policy rate to the bank loan rate of interest may not be one-for-one. Oligopolistic interdependences between banks also have a role to play in the pass through (e.g. Hofmann and Mizen, 2004)

From the perspective of industrial organisation theory, the margin between the loan interest rate and the deposit rate is the mark-up and set by the market power of the banks (the 'degree of monopoly'). As such, the traditional variables of industrial concentration, barriers to entry (into the banking industry), elasticity of demand etc.. The barriers to entry would include the regulatory framework and licensing requirements. The profit margin achieved would then depend on a combination of the market power of banks in the determination of the mark-up and the default rate on the loans. In terms of the relationship between the financial sector and industry, these considerations would feed into the costs of loans and finance for industry (relative to the interest received by households) and the profits of the banking system, and the degree to which in effect the operating surplus of industrial firms is captured by the banks.

5. Bank-based and market based financial systems

Different types of financial systems and sub-systems may be compared with reference to the impact on industry. Financial systems have often been classified in terms of bank-based and market-based financial systems . Indeed, it is argued that '[f]or over

a century, economists and policymakers have debated the relative merits of bank-based versus market-based financial systems.' (Levine, 2002, p.398).

The term 'banks' can be used in a variety of ways. In the macroeconomics literature banks are those institutions whose liabilities are treated as money (that is a generally accepted means of payment), and that indicates the important role of banks in the creation of money through the loans system, and the initiating role of banks for investment. It also indicates a relationship between investment and savings with investment expenditure viewed as the driver of savings. However, banks are often legally defined in terms of deposit acceptance, and where banks without any qualifier refers to the full range of those financial institutions which accept deposits and provide funding to others. This is a broader view of banks which is not limited to those whose liabilities are treated as money. For future discussion, we can distinguish:

Clearing or commercial banks: a financial institution providing services for businesses, organisations and individuals, where services include offering current, deposit and saving accounts as well as providing out loans to businesses. While only some of the liabilities of clearing banks are immediately available as means of payment which can be transferred to another party (coming under heading of current accounts, chequeing accounts), other liabilities may often be readily activated as means of payment by transfer of deposits into current accounts etc.. The clearing banks in the process of loan provision create money (in the form of bank deposits). Clearing banks may be subject to reserve requirements (ratio of reserves with Central Bank to deposits with them), and typically the Central Bank will act as 'lender of last resort' to clearing banks and provide necessary reserves.

Savings banks are financial institutions whose primary purpose is accepting savings deposits from the public and generally involved in lending to households (rather than to industry). These can include specialist institutions providing housing finance. In general the liabilities of savings banks would not be readily transferable to others and the savings banks would not participate in any clearing mechanisms.

Investment banks: offer a wide range of specialised services for companies and large investors, including underwriting and advising on securities issues and other forms of

capital raising, mergers and acquisitions, trading on capital markets, research and private equity investments etc. An investment bank trades and invests on its own account.

Universal banks participate in many kinds of banking activities including those which would be included under clearing (commercial banks), savings and investment banks. There is a history of different forms of ownership of banks (and other financial institutions), notably private, public (government) and mutual. Whilst mutual banks have typically focused on serving households (notably in the area of housing finance), public banks have often taken on a development role, and indeed there has been a revival of interest in the role of development banks (see, for example, Epstein, 2013). The roles of different forms of ownership including their relative efficiencies and the ways in which finance is allocated and priced are important aspects of the relationship between different financial systems and industry.

Non-banking financial companies/institutions (NBFC, NBFi) are institutions that provide financial services, but do not hold a banking license. These institutions are not allowed to take deposits from the public. However, these institutions would generally be covered by regulation. 'The "shadow banking system" can broadly be described as "credit intermediation involving entities and activities outside the regular banking system"' (Financial Stability Board, 2012, p. 3).

Financial systems are often compared in terms of 'bank-based' vs. 'market-based' systems. This can be a somewhat misleading characterisation as all financial systems involve banks (as money creating and transmitting institutions). Further, the term markets is used here to signify equity and bond markets, that is organised market places which involve the exchange of existing financial assets, along with the issue of new financial assets which been later further exchanged. Banks are also, of course, involved in exchange transactions which could be deemed market transactions. In either case, the financial sector stands between savers and investors, and the two systems can be compared in terms of the ways in which the financial sector relates to the borrowers.

The relationships involved in exchange and trading, buying and selling can be viewed in terms of voice and exit options. Hirschman (1970) argues that consumers can signal their dis-satisfaction to a firm either through the exit option (stop buying the firm's product) or through the voice option (express dissatisfaction to the firm).

The signal sent by the exercise of the exit option is a generalised one whilst that sent by exercise of the voice option is a much more specific one. Hirschman argues along similar lines when discussing Friedman's advocacy of a market mechanism in education. He argues that "Friedman considers withdrawal or exit as the 'direct' way of expressing one's unfavorable views of an organization. A person less well trained in economics might naively suggest that the direct way of expressing views is to express them!" (Hirschman, 1970).

In the context of financial institutions and markets, the 'exit' effect can be expressed through buying and selling decisions in respect of particular equity (or bonds). The liquidity provided by equity markets means that an individual can buy or sell the equity, and the collective buying and selling decisions lead to movements in the equity price. Dissatisfaction (or indeed satisfaction) with the way in which a company is being operated and is performing is expressed through price movements. For equity prices (and other asset market prices) some key questions include the degree to which information on the operations and performance of the corporation concerned is available and then the degree to which that information is incorporated into the equity price. The 'efficient market' hypothesis, of course, postulates that information is indeed reflected in the equity price, whereas others (e.g. Shiller, 2000) would view equity prices as subject to 'irrational exuberance', asset price bubbles and the like. These differing views have considerable implications for the relationship between finance and industry. Under the 'efficient markets' hypothesis, a stock market valuation incorporates all relevant information on a company and its future prospects. A poorly performing company has a corresponding market valuation which may (as discussed below) trigger a take-over bid (provided that the poor performance of the company can be corrected subsequent to a take-over), and be part of the market mechanisms pushing for efficiency. When stock market valuations are subject to

bouts of optimism and pessimism, the current market valuation may provide little guide to the company prospects.

Although the provision of loans by banks can be viewed in terms of a market transaction with a price attached, for a range of reasons loans and credit cannot be viewed in as an anonymous price-mediated exchange. The nature of contracts and relationships between banks and their customers becomes significant. The borrower will be subject to credit risk assessments, the contract will specify terms and conditions including repayment schedules, penalties for late payments etc.. In contrast to an anonymous competitive market where the identity of the seller is of no interest to the buyer, for credit and loans it is rather obvious to state that the identity of the buyer is significant for the seller (and vice versa). In the present context, the relevance of these thoughts is that the terms and conditions of the provision of credit, to whom it is provided and the on-going relationships between borrower and lender are important ingredients in the relationships between finance and industry.

Zysman (1983) postulated 'three distinct types of financial systems, each of which has different consequences or the political ties between banks, industry, and finance, as well as different implications for the process by which industrial change occurs. The three types are: (1) a system based on capital markets with resources allocated by prices established in competitive markets, (2) a credit-based system with critical prices administered by government, and (3) a credit-based system dominated by financial institutions. To distinguish between these three systems we focus on the process by which savings are transformed into investments and then allocated among competing users. Our emphasis is on the structural arrangements—the relations between the several markets and institutions through which funds flow—which shape this process in each country.' (Zysman, 1983, p.55). In this he recognized that 'a bank creates money and a non-bank financial institution does not. A non-bank financial institution invests money that it collects either in exchange for a service it performs or by borrowing. ... However they obtain funds, the amount of money a non-bank financial institution invests equals the amount it collected or borrowed. ...A bank is different. It takes in deposits and lends out more money than it takes in, creating

money in the process' (p.59), although he did not explore the significance of this money creating property of banks. He further notes that 'What makes the financial system different is the relative importance of two types of financial markets; capital markets and loan markets. Capital markets and loan markets are alternative sources of funds for all companies. A third market, the money market, is a source of short-term funds for large firms and financial institutions.' (p.60)

'This recent literature has continued to find useful the fundamental distinctions established by Gerschenkron, between what we are calling 'bank based' and 'capital-market based' financial systems. Most generally, the capital market-based systems are characterized by highly developed capital markets, with widely dispersed ownership of equity and debt instruments, and relatively low involvement of large banks in either the allocation of funds or the ownership of financial assets. The bank-based systems, by contrast, are characterized by a small number of universal banks that are actively involved in the long-term financing of investment activity of the non-financial firms. The banks are the primary source of long-term funds and they retain ownership for the long term of their debt instruments. In these economies, there is relatively little secondary trading of financial assets' (Pollin, 1995, p.5)

'First, in a cross-country context, there is no general rule that bank-based or market-based financial systems are better at fostering growth.... Second, using industry-level data, research finds that financially-dependent industries do not expand at higher rates in bank-based or market-based financial systems.... Third, firms' access to external finance is not easier, and firms do not grow faster in either market-based or bank-based financial systems' (Levine, 2005, p.919)

'The bank-based view highlights the positive role of banks in (i) acquiring information about firms and managers and thereby improving capital allocation and corporate governance ... (ii) managing cross-sectional, inter-temporal, and liquidity risk and thereby enhancing investment efficiency and economic growth ..., (iii) mobilizing capital to exploit economies of scale ... Thus, the bank-based view holds that banks—unhampered by regulatory restrictions on their activities – can exploit scale economies in information processing, ameliorate moral hazard through effective

monitoring, form long-run relationships with firms to ease asymmetric information distortions, and thereby boost economic growth.' (Levine, 2002, p.2)

'In bank-based financial systems such as Germany and Japan, banks play a leading role in mobilizing savings, allocating capital, overseeing the investment decisions of corporate managers, and providing risk management vehicles. In market-based financial systems such as England (sic) and the United States, securities markets share center stage with banks in terms of getting society's savings to firms, exerting corporate control, and easing risk management.' (Demirgüç-Kunt and Levine, 2001, p.81)

'[T]he market-based view highlights the growth enhancing role of well-functioning markets in (i) fostering greater incentives to research firms since it is easier to profit from this information by trading in big, liquid markets ..., (ii) enhancing corporate governance by easing takeovers and making it easier to tie managerial compensation to firm performance ..., and (iii) facilitating risk management. ... Thus, the proponents of the market-based view stress that markets will reduce the inherent inefficiencies associated with banks and enhance economic growth' (Levine, 2002, p.3).

'Bank-based systems may involve intermediaries with a huge influence over firms and this influence may manifest itself in negative ways. For instance, once banks acquire substantial, inside information about firms, banks can extract rents from firms; firms must pay for their greater access to capital. In terms of new investments or debt renegotiations, banks with power can extract more of the expected future profits from the firm (than in a market-based system)' (Levine, 2005, p.883)

The relationship between financial development and economic development (growth) is discussed further in Sawyer (2014b). There is a stream within that literature which postulates that financial development and deepening fosters economic development.

'This paper examines the evolving importance of banks and securities markets during the process of economic development. We find that as countries develop economically, (1) the size of both banks and securities markets increases relative to the size of the economy, (2) the association between an increase in economic output and an increase in bank development becomes smaller, and (3) the association

between an increase in economic output and an increase in securities market development becomes larger. The results are consistent with theories predicting that as economies develop, the services provided by securities markets become more important for economic activity, while those provided by banks become less important.' (Demirguc-Kunt, Feyen, and Levine, 2012). However, as we argue in Sawyer (2014b) the evidence suggests that the expansion of the financial sector, and particularly the developments of securitisation, derivatives and the rapid rise of financial assets and liabilities (relative to GDP) has not been conducive for economic growth.

There has been the associated discussions on the relative merits of the two types of system, as reflected in the title of Levine (2002) which asks which of bank-based vs. market-based system is better. The results of Levine 'indicate that although overall financial development is robustly linked with economic growth, there is no support for either the bank-based or the market-based view' (p.398).

The focus of attention in the mainstream bank-based vs market-based system discussion is on the allocation of funds arising from savings towards different investment projects, and the ways in which the allocation of those funds is screened for risk and in which there would alternate forms of corporate governance. It is an analysis of a rather static system which gives little hint of instabilities. The instability arising from credit creation by the banking system is largely ignored since the loan and money creation attributes of the banking system are overlooked. In a similar vein, instabilities associated with equity and other asset markets and the generation of asset price bubbles and their significance for macroeconomic (in)stability are also ignored.

6. Corporate governance

The stock market (formal or informal) involves the issue of new equity by companies to raise capital and the trading in existing equity. As mentioned above, the capitalisation of the stock market is used as an indicator of their size and importance,

and has been an important indicator in the classification of systems as market-based or bank-based.

The financial sector has two distinct roles with regard to equity. The first is the organisation of a market in which equity is traded (and issued) and the rules, regulations and norms governing the trade. The market place may originally have been a physical place, though the significance is as an institution with norms through which trading takes place. The manner in which the stock market operates, e.g. whether it serves to exacerbate volatility of prices, feed into 'bubbles' (dot.com boom etc.). Further, the level of a company's equity price can be seen (as in Tobin's q) as an indicator of the price of funds and influence on investment decisions.

The issue of equity represents a pooling of funds and with a large number of shareholders each of whom has a relatively small portion of the company. This has led into the well-known issues of the separation of ownership from control (and management), the 'divorce' between ownership and control (stemming from Berle and Means, 1932), and the implication that the management of the corporation will develop their own objectives which depart from those of the owners of the corporation. Managerial theories of the firm (e.g. Baumol, 1959, Marris 1964) were developed with managers represented as interested in the size and growth of their corporation, even at the expense of profitability.

These considerations lead into two aspects. The first of these involves the financial sector, and relates to the issue of who are the shareholders. The picture painted by Berle and Means was of many companies with dispersed shareholdings such that any individual shareholder would be not only separated from management but also lack any incentive to engage with management or to exert influence over management – the costs of such engagement would be large relative to any individual benefits. This picture changes when financial institutions (notably insurance companies, pension funds, mutual) are the shareholders.

The other line of response can be described in terms of the 'market for corporate control' (Manne, 1966), the mechanisms of mergers and acquisitions and of restructuring. The ways in which corporations can be bought and sold, whether

facilitated by or generated by the financial sector, impact on the structure of industry (e.g. aiding the processes of concentration) and on the behaviour of corporations (e.g. short term behaviour and discouragement of long-term investment).

Under the latter, the relationships between the financial sector and those undertaking investment may encourage or discourage investment, e.g. the argument of short-termism.

It is generally held that large institutional investors are more willing and able to monitoring relative to small and more diffuse owners (Shleifer and Vishny, 1986, 1997). The exercise of influence by shareholders (including financial institutional investors) can be perceived in terms of the 'voice-exit' paradigm, originated with the idea of Hirschman. In the context of institutional investors this has been described in the following terms 'It is universally taken as axiomatic that institutional investors seeking to constrain corporate managers can only do so in one of two contrasting ways: they can either continue to hold their shares and actively participate in boardroom decision making, or they can sell their shares and hope that sufficient numbers of shareholders follow suit as can make real the threat of takeover and a change of management or of management strategy.' (Lysandrou and Stoyanova, 2007, p.1070) . The former ('voice') option can be supported by the idea that the 'exit' strategy provides at best a signal of disapproval without specifying the nature of the disapproval nor any proposed remedies, whereas the 'voice' option (following the quote above from Hirschman) does enable the expression of the nature of the issues and may enable those issues to be resolved. (As an aside it may be interesting to note that the banking system may enable better exercise of 'voice'). The 'voice' option is in principle available to all shareholders but that encountered the argument that for a shareholder with a small holding in the corporation concerned would find that whilst the collective benefits (for shareholders) from the exercise of 'voice' may be substantial, the benefits (e.g. in terms of higher dividends, equity price) for the individual share-holder would be small relative to the costs of exercising 'voice'. This, of course, was the essential argument underlying the separation of ownership and control (Berle and Means, 1932) and the managerial controlled firm (run in the

interests of managers at the expense of owners: Baumol, 1959, Marris, 1964). Since institutional shareholders often have relatively large holdings and the organisation of 'voice' interventions by groups of such shareholders feasible, the exercise of 'voice' becomes realistic. Whereas the managerial theories of the firm postulated the pursuit of objectives related to size, to managerial emoluments etc., the exercise of 'voice' by institutional shareholders could be seen in the light of 'shareholder value' – the maximisation of shareholders' interests which are interpreted in terms of profits and stock market valuation.

The 'exit' option has been closely related with the 'market for corporate governance' (Manne, 1965, Jensen and Meckling, 1976 etc.) and the processes of acquisitions. The argument is straightforward – a relative low share price (as measured by Tobin's q or the valuation ratio of Marris) stimulates (hostile) takeovers as the stock market valuation of the company becomes low relative to its potential. It may be asked whether the take-over mechanism appears to work in this way.

However, as Lysandrou and Stoyanova (2007) argue that the 'exit' option may be blunted as whilst an institutional investor may 'exit' one company by selling their shares in that company, there are limited options for 'exiting' the stock market as a whole. There are, of course, possibilities of moving into government bonds and into foreign equity which may be exercised.

The operations of this 'exit' effects does portray the acquisition and merger process as involving the takeover of under-performing companies (under-performing here being relatively low valuation ratios or equivalent and some notion of lower profits than potential). Further, for the incentives to exist for the takeover of under-performing companies it is necessary that the post-takeover performance improves and the profitability of the acquiring company and its shareholders are enhanced. But much of the findings of empirical work points in another direction. Cosh and Hughes (2008), for example, conclude that the finding of Singh (1971) that 'the stock market was a very imperfect vehicle through which the natural selection process could be carried out has been supported substantially by subsequent work. This is most striking in relation to the inability to distinguish acquired companies from the rest in

terms of their underlying profit or share price performance. Equally, there is very little evidence to support the view that the shareholders of acquiring companies should be motivated to support management who wish to carry out takeovers, on the grounds that they were extending their superior management skills to underperforming companies. Both the short-run and long-run share price impacts suggest that takeovers, on average, substantially worsen acquiring company shareholders' wealth. The evidence on profit impacts have become somewhat more positive over time, but depend critically on whether the period is before or after the major accounting standards changes affecting takeovers, and on whether cash flow or other methods of profit measurement are used' (p.231).

It has generally been observed that there has been a growth of financial institutional ownership of equity (and bonds), and that financialisation has involved the emphasis on 'shareholder value'. As argued above, the rise of institutional ownership facilitates the exercise of power by the shareholders on companies. This would enable shareholders to push for 'shareholder value'. Whilst individual shareholders would presumably be concerned over 'shareholder value', they may lack the incentives and abilities to enforce the pursuit of 'shareholder value', and may well take a different view of what constitutes 'shareholder value' from that taken by financial institutions. Lazonick and O'Sullivan (2000) amongst others consider the rise of the idea of maximisation of shareholder value, and the forces behind it. The role of the financial system in this comes from the role of the institutional investor – that is financial institutions. 'During the 1970s, the quest for shareholder value in the US economy found support from a new source – the institutional investor.' (Lazonick and O'Sullivan, 2000, p.16). This generates a shift from a model of 'retain [profits] and reinvest' to 'downsize and distribute'. The effects of such a shift include some break in the link from profits to investment and more short-termist orientation of corporations. The managerially controlled firm was portrayed as primarily interested in growth, whereas the owner controlled firm was primarily interested in profits in the short term.

Hein summarises a range of arguments on the generally adverse effects of 'shareholder value' under financialisation on investment:

'1. Shareholders impose higher distribution of profits on firms, i.e. a higher dividend payout ratio and hence a lower retention ratio and/or a lower contribution of new equity issues to the financing of investment, or even share buybacks. Therefore, internal means of finance for real investment are reduced, and the ability to invest hence suffers ('internal means of finance channel').

2. Managers' (firms') preference for growth is weakened as a result of remuneration schemes based on short-term profitability and financial market results. The preference for growth, and hence the willingness to invest in capital stock, therefore suffers, too ('preference channel').' (Hein, 2012)

'Regarding investment in capital stock, financialisation has been associated with increasing shareholder power vis-à-vis management and labourers, an increasing rate of return on equity and bonds held by rentiers, and decreasing managements' animal spirits with respect to real investment, which each have partially negative effects on firms real investment.' (Hein, 2012)

The pursuit of 'shareholder value' is often viewed as one of the hallmarks of the present era of financialisation. For example, 'scholars have attributed the financialization of the corporation to the emergence of shareholder value as the main guiding principle of corporate behaviour (cf. Rappaport, 1986). Shareholder value refers to the idea that the primary purpose of the corporation is to make profit for its shareholders. According to Aglietta, shareholder value has become the 'norm of the transformation of capitalism' (2000, p. 149) and as such has provided the justification for the dissemination of new policies and practices favouring shareholders over other constituents of the firm'. (van der Zwan, 2014, p.102).

It may be though remarked that who are the shareholders has evolved over time. As the Berle and Means (1932) reminds us there was a perceived shift towards dispersed share-ownership (in the United States) with some large corporations having thousands or millions of shareholders each of whom would have little incentive to exercise any degree of influence or control over managers. A number of responses

have been highlighted in the literature including a closer link between managerial rewards and profit and/or share price performance. Other developments have included the movement from individual shareholding to financial institutional shareholding.

Another development has been the rise in volume and frequency financial transactions which seems to go alongside the rise of financial institutional shareholding. The voice/exit dichotomy may be usefully applied to the different ways in which shareholders exercise impact over corporations. On the one hand, financial institutions have relatively large shareholdings in companies and can intervene in the management of a corporation through meetings with management, intervention at general meetings etc.. The portrayal of German banks as long-term equity holders also fits with this pattern, and indeed may be viewed as the ultimate example. It would then be through the exercise of the 'voice' effect that shareholders seek to enforce the pursuit of 'shareholder value'. The exercise of 'voice' presupposes long-term relationships between in this case shareholders and management.

On the other hand, the 'market for corporate control' and the postulated operation of take-over mechanisms would see 'shareholder value' coming through fear by managers of the consequences if shareholder value is not pursued, represented by, for example, fear of hostile takeover. Further, when managers' earnings and bonuses are linked with share-price performance, there is some direct incentive for the pursuit of 'shareholder value'.

A recent development in financial markets has been the growth of high frequency trading (HFT), in which large number of orders are transacted electronically with use of algorithms to analyse markets and execute orders in response to market events. Issues of the purpose of such speed of trading and impacts on volatility and liquidity can be raised. In terms of the relationship between finance and industry, HFT brings up in an extreme form the issues which have long been raised by high rates of turnover. High frequency trading exacerbates the issues raised by Keynes in the 1930s when he wrote that 'Speculators may do no harm as bubbles on a steady stream of enterprise. But the position is serious when enterprise becomes the bubble on a

whirlpool of speculation. When the capital development of a country becomes a by-product of the activities of a casino, the job is likely to be ill-done... The introduction of a substantial government transfer tax on all transactions might prove the most serviceable reform available, with a view to mitigating the predominance of speculation over enterprise in the United States." (Keynes, 1936, p.159 and p.160)

7. Concluding remarks

The financial sector can be viewed as standing between the household sector as a source of savings and industry as an investing sector: and that has been the focus of attention in this paper. There is, of course, lending by the financial sector to (some) households which has become of increasing significance. And, much investment is self-funded by firms out of profits, thereby relying on internal funds rather than external funds which have higher costs associated with them. Here we have focused on two particular aspects of the relationship between the financial sector and industry and how that relationship sets the terms on which finance is supplied and to whom. The first has been the pervasive nature of credit rationing, and the second arises from the large-scale ownership of industry by financial institutions (even if in some sense on behalf of households). The pervasive credit rationing leads into issues of the basis on which the rationing occurs and specifically how credit and finance are allocated to different sectors, different groups etc.. The large-scale ownership by financial institutions places has significant implications for corporate governance and the involvement of owners in management decisions.

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