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Bank-based versus market-based financial systems: a critique of the dichotomy

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Abstract: The paper sets out different perspectives on the bank-based vs market-based typology of financial systems. It presents a general critique of the typology, paying particular attention to the ways in which the typology reflects a loanable funds approach, ignoring the roles of banks in the credit money creation process, and the neglect of different types of banks. It is argued that banks should be viewed as institutions engaged in market transactions and the equity markets as also institutions involved in markets.

Key words: bank-based financial system, market-based financial system

Journal of Economic Literature classification: G19, G20

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Bank-based versus market-based financial systems: a critique of the dichotomy

Malcolm Sawyer

1. Introduction

The discussion and analysis of different national financial systems has generally focused on the concepts of bank-based (or dominated) financial system and market-based (or dominated) financial system. As Levine expressed it 'For over a century, economists and policymakers have debated the relative merits of bank-based versus market-based financial systems.' (Levine, 2002, p.398). He continued by stating that 'since the 19th century many economists have argued that bank-based systems are better at mobilizing savings, identifying good investments, and exerting sound corporate control, particularly during the early stages of economic development and in weak institutional environments' (Levine, 2002, p. 398)

The simple distinction between bank-based system and market-based system is expressed as: '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). They continue by stating that in order 'to analyze financial structure, we *must* classify countries as either market-based on bank-based.' (p.83, emphasis added). It is that imperative which is challenged here, and in a related paper an alternative classification is explored (Sawyer, 2013c).

In this paper, the bank-based/market-based typology is critically reviewed. A particular proposition is that it is difficult to contemplate a financial system without banks as issuers of credit money, though it is possible to contemplate one without stock markets. Banks here can be commercial banks and/or central banks (as issuers of State money): the significant element being that their liabilities are treated as generally accepted means of

payment. Thus a market-based system has to include banks, but it is not necessarily the case that a bank-based system involving organised stock markets (see later for discussion on what is meant by bank and by market). The market-based/bank-based (or market-centred vs. bank-centred) typology is then a matter of degree in that (nearly) all financial systems involve both equity markets and banks. At one level, the distinction is between an equity market-based system under which corporations are able to raise funds through the issue of additional shares (including initial offerings) which are subsequently traded and a bank-based system in which loans and credit are provided by banks.

The bank-based/market-based distinction has been drawn on by a range of analysts and writers from a number of perspectives, which are to some degree overlapping. For the purposes of discussion three broad groupings are considered. The first, which we will label mainstream, portrays banks and (stock) markets are alternative modes of linking savers with investors and which involve different forms of governance. The second, which is related with the 'varieties of capitalism' literature, has some links with the first and adopts some features of a 'new Keynesian' approach to economic theory, and specifically views the different institutional arrangements (banks or markets) with different forms of relationships between economic actors, and with broader forms of economic coordination ('varieties of capitalism'). The third, which also has some interactions with the preceding ones, focuses on the roles of different financial systems on investment and industrial development.

In each of these approaches, there has often been at least consideration of the relative performance of the two types, and whether there is a trend towards one type or the other – where the trend would often be seen as in the direction of market-based. After reviewing each of these approaches, we discuss 'what is a market' -- or perhaps more accurately what is viewed as distinguishing market transactions from non-market transactions. The paper concludes through a series of critiques of the bank-based/market-based typology and the development of the argument that it is inadequate as a classification of financial systems.

The market-based/bank-based terminology is rather misleading in that all the financial systems being considered are part of what may be termed market economies. The financial systems themselves involve trading in which financial assets and liabilities are exchanged at a price. A bank-based system can be represented in simplistic form in terms of the supply of funds and the demand for funds (with the former arising from savings taking the form of bank deposits and the latter arising from investment and taking the forms of loans): this is undertaken in many macroeconomic text books, and in the 'financial repression literature'. The market metaphor is used – for example, the market for loanable funds, and the banks themselves considered as the intermediaries between the demanders for and suppliers of funds.[1] The banks are often seen as more akin to market-makers in the sense of bringing together demand and supply, as reflected in numerous diagrams and specifically in the financial repression literature. In some representations banks help to pool savings, provide monitoring and similar functions, but otherwise the demand and supply of loans/deposits is similar to a competitive market. Stiglitz and others raise issue as to whether that market can ever be perfectly competitive because of information asymmetries etc., and credit rationing. But even without being involved in a perfectly competitive market, banks supply funds at a price (and perform many other functions).

A market-based financial system similarly is viewed as matching a supply of funds with a demand for funds through the issue of equity. In the latter case, historically there may have been a physical market place where the trades were conducted, but more generally the stock exchange can be viewed as an institutional arrangement through which the supply of and demand for funds are matched. In the former case, the banks are the institutional arrangements by which the matching occurs.

The particular point though to be made here is that both the bank-based and the market-based systems are viewed in terms of linking saving with investment, where the volume of

[1] 'However, as Hellwig (1998) has recently emphasized, intermediaries are often necessary for the existence and efficient functioning of markets.' (Allan and Gale, 2001,p.469)

saving is there to be allocated between alternative investment uses. Each of the systems is viewed essentially in loanable funds terms – that is in terms of linking and equating savings and investment via price (in the simple case the interest rate). The interest rate is then related to 'waiting' (for savings) and 'productivity' (for investment). This view, we would suggest, does not readily lend itself for understanding of instability and fragility of the financial system.

The use of the term 'banks' in the context of bank-based vs. market-based systems can misleading in two respects. First, it suggests that banks are not part of a market process, whereas banks are involved in market processes, even though the markets would be not be competitive ones (in the sense of approximating perfect competition). Second, it does not take care over specifying the role of banks. Alternative terminology here would be to distinguishing commercial (clearing) banks, investment banks, savings banks, universal banks recognising that it is generally the case that a financial institution has both sets of functions, and how far those functions should be separated. A further issue here may be banks dealings in existing financial assets. The investment bank is portrayed as receiving deposit which is in some way lent out—the precise form varies. But (apart from range of financial services such as insurance) 'banks' have become involved in the sale and resale of financial assets, mortgage backed securities and the like.

2. The mainstream view of bank-based/market based typology

When banks and financial markets are both viewed in terms of financial intermediaries between savers and investors, then the two may be compared in terms of the effectiveness in matching savings and investment, and in terms of effects on the propensity to save (e.g. savings encouraged by the availability of liquid assets in which to place savings). In general, the underlying perspective is a neo-classical one in which the pool of savings is available for direction into investment. The implicit view is that the financial sector is an intermediary between households (as savers) and firms (as investors), and the supply of credit to households is largely ignored. The financial sector is viewed as performing monitoring functions when finance and credit are supplied to the business sector. The

terms and conditions for the supply of finance and credit range from an arms-length relationship in which the financial institutions stake is limited to securing the payment of interest and principal through to equity interest involving not only profit-related rewards to finance but management and other involvement.

One view of the perceived differences between a bank-based system and a market-based system is expressed as follows: '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 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. … Moreover, the market-based view stresses problems with banks. Specifically, powerful banks can stymie innovation by extracting informational rents and protecting established firms with close bank–firm ties from competition … Furthermore, powerful banks with few regulatory restrictions on their activities may collude with firm managers against other creditors and impede efficient corporate governance … In contrast, competitive capital markets play a positive role in aggregating diffuse information signals and effectively transmitting this information to investors, with beneficial implications for firm financing and economic performance …Thus, 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).

In the bank-based system, the key role of a 'bank' is viewed as linking together savers and investors. It should first be noted that any institution which accepted deposits from the public and which then lent those deposits to others would be deemed in this approach a bank. However, in economic terms, a bank may be viewed as an economic institutions (some of) whose liabilities are widely accepted as a medium of exchange and a means of payment – the relevant liabilities here being deposits in chequeable accounts. A feature of banks then is that banks can extend loans which thereby create money (in the form of bank deposits). The traditional sequence appears to be savings →investment, and the focus is on the ways in which the financial system allocates the savings, and whether the financial system is operating merely as a conduit through which funds flow. The sequence so far as (clearing) banks are concerned (following the circuitist/endogenous money approach) runs from investment intentions through loans to bank deposits and to spending, and as result of investment intentions being realised corresponding savings are generated.

'In sum, proponents of bank-based systems argue that there are fundamental reasons for believing that market-based systems will not do a good job of acquiring information about firms and overseeing managers. This will hurt resource allocation and economic performance. Banks do not suffer from the same fundamental shortcomings as markets. Thus, they will do a correspondingly better job at reseaching firms, overseeing managers, and financing industrial expansion.' (Levine, 2005, p.883)

'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 (2013b). 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.' (Abstract of Demirguc-Kunt, Feyen, and Levine, 2012)

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: Abstract).

Allen and Gale (2001) argue (as do many other commentators) that 'The current trend is toward market-based systems' (p.5). They ask 'why are so many countries, with different histories, environments, and population, converging on a single financial paradigm?' (p.5). They answer their question in terms of two explanations. The first is that government intervention has become discredited with 'government failures [viewed] ... at least as important a problem as market failure'. The second is 'that economic theory, particularly that pertaining to financial markets, has stressed the effectiveness of markets in allocating resources' (p.6). This is not the place to rehearse the doubts surrounding the proposition that markets are effective in allocating resources. However, what can be mentioned here is the (implicit) link of bank-based system with government, and that a bank-system appears to be regarded as not involving market exchange. This then leads to

the proposition that the growth of stock markets relative to banks in the financial system is evidence of a more market based economy.

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.

The discussion of the role of banks largely overlooks the money creation role of (some) banks. Indeed some (as in the macroeconomics literature) would in effect define a bank as an institution some of whose liabilities are treated as money (that is bank deposits which can be readily transferred between individuals and accepted as a means of payment). Further, there is often an implicit (and sometimes explicit) model of the bank (or the bank business model) as a collector of deposits from households and the provider of loans to firms – and hence **not** engaged in the wholesale money markets nor involved in the securitization loans, and **not** as providing loans to households.

3. Varieties of capitalism and the financial system

The bank-based/market-based dichotomy has often been linked with a more general dichotomy of coordinated market economies and liberal market economies. In the varieties of capitalism literature, the distinction has been expressed as follows. 'In *liberal market economies*, firms coordinate their activities primarily via hierarchies and competitive market arrangements. These forms of coordination are well described by a classic literature (Williamson 1985). Market relationships are characterized by the arm's-length exchange of goods or services in a context of competition and formal contracting. In response to the price signals generated by such markets, the actors adjust their

willingness to supply and demand goods or services, often on the basis of the marginal calculations stressed by neoclassical economics. In many respects, market institutions provide a highly effective means for coordinating the endeavours of economic actors.' (Hall and Soskice, 2001, p.8, emphasis in original)

'In *coordinated market economies*, firms depend more heavily on non-market relationships to coordinate their endeavors with other actors and to construct their core competencies. These non-market modes of coordination generally entail more extensive relational or incomplete contracting, network monitoring based on the exchange of private information inside networks, and more reliance on collaborative, as opposed to competitive, relationships to build the competencies of the firm. In contrast to the liberal market economies (LMEs), where the equilibrium outcomes of firm behavior are usually given by demand and supply conditions in competitive markets, the equilibriua on which firms coordinate in coordinated market economies (CMEs) are more the result of strategic interaction among firms and other actors' (Hall and Soskice, 2001, p.8, emphasis in original)

The mention of the work of Williamson here provides some linkages through issues of transactions costs, monitoring and governance issues with the approaches discussed in the previous section[2]. However, the significant element here is the linkage made between liberal market economies and market-based financial systems, and between coordinated market economies and bank-based systems.

Albert (1993) portrays the differences[3] between what he labels the Rhine model and the neo-American model to include:

Rhine model: on finance: Bank-dominated; patient capital; strategic cooperation between banks and firms;

Finance-industry relations: Strategic: integration of financial and industrial capital

[2] Soskice (2007) relates the LME/CME distinction with macroeconomic policies and aggregate demand in the context of a new Keynesian analysis.

[3] This summary is based on Peck and Theodore (2007) Table 1.

Neo-American: on finance: Stock-market dominated; short term orientation; Wall Street brokers' preoccupation with quarterly earnings;

Finance-industry relations: Market-mediated; separation of financial and industrial capital

Although heavily based on a Germany-USA comparison this has some clear echoes of the varieties of capitalism identification of LME with market based financial system and CME with bank-based. The nature of the relationships between banks and industry is again viewed as particularly significant. For example, '[i]n Germany, too, the common ground shared by banks and industry goes some way beyond purely financial considerations. As important company shareholders, banks enjoy a privileged status and their views are listened to, on at least two accounts: first, through direct ownership of a portion of the capital; and, secondly, through voting rights exercised on behalf of shareholders who bank with them' (Albert, 1993, pp.107-8).

Albert also expresses the view that '[o]f the two models of capitalism, it is the Rhine variant which is plainly more efficient that the neo-American, whether considered from the economic point of view or from the social angle' (Albert, 1993, p. 191). 'With the collapse of communism, it is as if a veil had been suddenly lifted from our eyes. Capitalism, we can now see, has two faces, two personalities. The neo-American model is based on individual success and short term financial gain; the Rhine model, of German pedigree but with strong Japanese connections, emphasizes collective success, consensus and long-term concerns. In the last decade or so, it is this Rhine model – unheralded, unsung and lacking even nominal identity papers – that has shown itself to be the more efficient of the two, as well as the more equitable'. (Albert, 1993, p.18).

Vitols (2001), in a comparison of Germany and the UK similarly argues that 'markets (as opposed to non-market institutions) regulate all of these kinds of relationships to a much greater extent in the UK than in Germany. These institutional differences are reflected in different corporate practices, including longer investment time-horizons and a greater concern with the impact of decisions on difference constituencies of the firm.' Further, 'the 'shareholder model, in which the maximization of shareholder value is the primary

goal of the firm and only shareholders enjoy strong formalized links with top management; and the 'stakeholder' model in which a variety of firm constituencies—including employees, suppliers and customers, and the communities companies are located in—enjoy 'voice' in the firm and whose interests are to be balanced against each other in management decision-making' (Vitols, p. 337).

The approaches briefly outlined in this section are, like those in the previous section, located in the loanable funds framework with causation running from savings to investment with neglect of the money creation properties of commercial banks. Similarly these approaches focus on financial sector -- firms relationship with household (and small business) neglected. There is a clear linkage with the 'varieties of capitalism' school, and we do not enter into a critique of that school here. We can repeat a point made above, that the different varieties are market-based economies in which the perceived exchange relationships and associated contractual arrangements differ.

4. Financial systems and industrial development

A notable feature of most of the bank-based/market-based discussion is focus on finance-industry and lending to business. This is evident from the Gerschenkron initial formulation and the Anglo-German, and later Anglo-Saxon/German cum Japanese comparisons.

'The difference between banks of the crédit-mobilier type and commercial banks in the advanced country of the time (England) was absolute. Between the English bank essentially designed to serve as a source of short-term capital and a bank designed to fiancé the long-run investment needs of the economy there was a complete gulf. The German banks, which may be taken as a paragon of the type of universal bank, successfully combined the basic idea of the crédit mobilier with the short-term activities of commercial banks.' (Gerschenkron, 1962, p.13)

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)

Schaberg (1999) views the dichotomy between bank-based and marked-based systems from the perspective of corporations and the funding of their investment, where the main emphasis of his book is 'on comparing how the non-financial corporate sector of each country finances investment. The patterns of financing of both physical investment and total investment by non-financial corporate enterprises in different countries are compared.' (Schaberg, 1999, pp7-8). He notes that 'a broad range of researchers has found the bank-based, or voice-dominated, systems to be superior to the capital market-based systems along a number of different dimensions [although the conclusion is not universal]'. The advantages include that 'voice-dominated financial systems better solve information, co-ordination, and incentive problems' (p.11) in addressing principal-agent problems. Further, an 'additional common reason offered for the superiority of bank-

based systems in their fostering of long-term time horizons and promotion of long-term productive investment' (p.12). But despite those advantages, his empirical work shows 'a convergence to a more speculative framework and a tendency towards lower and more volatile investment in the US, UK, and France and suggest the possibility of such developments in Germany and Japan if further convergence toward the exit model occurs.' (p.137)

Pollin portrays '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, 1995a, p.5). He also argues that the literature 'finds that bank-based systems, such as those in Japan, France, Germany and South Korea have been more successful than capital market-based systems, such as those as in the US and UK, in solving the incentive, coordination and informational problems inherent in capitalist economies, and indeed in all complex economic systems. Because of this, bank-based systems are better equipped to promote longer time horizons and a stable financial environment' (Pollin, 1995b, p.29). Pollin continues in arguing that a bank-based system 'create more favourable conditions for activist government policy interventions, including both traditional macro policies and public credit allocation policies. At the same time, the bank-based systems generally operate through highly undemocratic public and private bureaucracies, which are clearly inimical to any egalitarian policy project.'

The bank-based vs market-based dichotomy can be viewed through the lens of 'voice vs. exit' (Hirschman, 1970), which is further discussed below. Here we note that the 'exit' option operates in the market in that an economic agent can express their disapproval

through exit – selling or not buying the good concerned (in the stock market case, shares in a company). In face-to-face economic relationships though 'voice' can be expressed. '[T]he fundamental distinction between financial systems can be seen to be not whether they are bank- or capital market-based, but rather whether they are dominated by exit or voice mechanisms.' (Pollin, 1995b, p.29). This also opens the way for considering that there is not a universal way in which banks operate, and that the relationships between a bank and its customers may be long-term or short-term, patient or impatient, and the relationships can differ with the characteristics of the customer, e.g. large corporations would be treated differently from a start-up company.

Thus, the ability (or otherwise) of the financial sector to acquire information and improve capital allocation and corporate governance, manage liquidity (and other risk) and more generally impact on efficiency of investment, facilitate business exploiting economies of scale (and economies of scope and more generally restructuring) are highly pertinent issues. The ways in which different types of financial institutions impact on capital allocation, corporate governance and investment form a very significant consideration in work on national financial systems.

It would first be recognized that stock markets do not and cannot provide funding for a start-up company. That does not preclude that funding is provided on an equity profit-sharing basis through, e.g. venture capital, to enable a start-up. The floatation of a company on the stock market is the way by which the founders of a company realise some of the profits of the company in a capitalised form. The stock market becomes an arena in which corporate re-structuring can be effected through the processes of mergers and acquisitions. There would be no presumption that stock market prices are set 'efficiently', and indeed the anticipation is that stock market prices would be subject to a high degree of volatility.

5. Market-based banking

One of the major developments in banking in the past two to three decades has been the growth of the securitisation of loans, and the development of the 'originate and distribute'

model at the expenses of the 'originate and retain' model of loan provision. Chick (1993, for example, places this as the sixth stage of banking in her schema as characterized by securitization of credit, which allows banks to reduce the risk of illiquidity intrinsic to banking, and the emergence of off-balance sheet operations.[4]

This development had consequences for the ability of banks to expand credit and has implications for the operation of monetary policy which it can be argued has been based on a bank-based model of the financial system with the banks' business model being the 'originate and retain'. However, the significance for the present discussion arises from the notion that the assets created through the securitisation process are sold through markets (to other financial institutions). Hardie and Howarth (2013b) talk of market-based banking which is contrasted with traditional banking (cf. their Table 2.1). Drawing on that Table, they talk of traditional banking which has commercial and savings banks (under different names in different countries) where loans are retained on the balance sheet with customer deposits as major source of funding. Credit risks of loans retained are not hedged, and at valued at cost. The central bank provides official support through its role of lender of last resort. In the market-based banking, the distinction is drawn between commercial banks who continue to receive official support from the central bank and parallel banks (which include investment banks) where (outside of crises) no official support is offered. In other respects the two types of banks are viewed as sharing the common features of (i) loans are sold in loan markets via securitization or to shadow banks: the originate to distribute model; (ii) funding is through the wholesale markets, (iii) the credit risk of loans is hedged through CDS (credit default swaps), (iv) loans are accounted on a mark to market basis.

[4] Chick (1986) had postulated five stages of banking from Stage 1 where cash is widely used as a means of payment; stage 2 where bank liabilities become means of payment; stage 3 inter-bank lending; stage 4 central bank provides lender of last resort facility; stage 5 'banks enter the new phase of liability management; nonbank financial intermediaries (NbFIs) use the liabilities of banks as their reserve base and banks find themselves facing strong competition from the NbFIs. Rather than just waiting for new loan requests, as they would have done in the past, banks now aggressively seek new lending opportunities. As a result, at the outset of Stage 6, banks have an increasing proportion of bad loans because the excessive credit expansion in Stage 5 was not supported by real economic activity' (Dow, Ghosh and Ruziev, 2008).

In a similar vein, it is argued that '[p]reviously, market-based banking has been applied to the 'shadow banking system': those parts of the financial system that provide credit, but are not commercial banks, such as investment banks and money market funds.[5] In this usage, shadow banking focuses on the 'originate and distribute' business model. In this model, banks 'disintermediate themselves' by not keeping loans on the balance sheet but selling them to other financial market actors – or are disintermediated by those other financial market actors providing credit directly. This familiar story of the disintermediation of banks involves loans being market-based.' (Hardie, Howarth, Maxfield, Verdun, 2013, p. 703)

'We consider four core elements of market-based banking, on both the asset and liability sides of bank balance sheets, all central to banks' ability to lend. These are the extent to which: 1. assets are valued at market prices ('marked to market'); 2. bank lending is securitized or traded; 3. bank assets are sold to 'shadow banks'; and 4. assets retained on balance sheets are financed from market sources.' (pp. 708-9).

The significance of these developments for the bank-based/market-based typology would appear straightforward. Banks engage in transactions involving financial assets akin to transactions through stock markets as well as transactions involving loans and deposits. Banks engage in securitization with a 'originate and distribute' business model in place of the 'originate and retain' model and the distinction between the market-based and bank-based becomes blurred. Whilst recognizing that banks do engage in stock market or similar transactions has considerable significance for the ways in which financial system works and for the operation of monetary policy, it still retains the 'loanable funds' approach to savings and investment and does not bring in the role of banks as money creators. Further, it retains the misleading implication that banks stand in contrast to markets, rather than viewing banks as always involved in what may be termed market exchanges.

[5] See Adrian and Shin 2010 (footnote in original)

6. What is 'market'?

When we speak of the market for this or the market for that, what do we mean? and does the trading in 'this' or 'that' in the real world constitute what is meant by a market. One concept of a market is that given in the text books as a perfectly competitive market analysed in terms of the demand for and supply of the item in question. The perfectly competitive market is characterised by a homogenous product and anonymity of economic agents involved with each facing a parametric price; the outcome is characterised in terms of equilibrium with a uniformity of price across the market.

This raises a shaft of questions -- how are differentiated products to be dealt with?, what about time and space? does it require numerous buyers and sellers? Phrases such as the market for this or that abound. In many cases, this simply means the idea that there will be people willing to buy the range of items concerned. In other cases, the phrase is used for a broad aggregate – the labour market for example. The starting point for an analysis of a market (in say introductory micro-economics text books) is a demand and supply analysis for a homogenous product. In narrow economic terms, a (perfectly competitive) market would involve anonymity, homogeneity, and uniformity of price (across space, for example). The significance of this view is that financial markets for equity and for currency are often envisaged as operating along these lines. The 'efficient market' hypothesis and the 'random walk' nature of price come from applying postulates of full information to a perfectly competitive market. The point to make here is that the 'efficient market' hypothesis can at most be applied to a market situation which has properties of anonymity and homogeneity.

Note, here, that the boundary around a specific market is viewed in terms of the homogeneity of the product and then by a uniformity of price. But if the notion of a market is related with this demand and supply analysis, then loans and credit would not be ones for which there was a market in that anonymity and homogeneity are not features of loans and the acquirers of loans.

What do you mean by market transactions? and where do non-market transactions fit in. Commodities are bought and sold: does that mean that these are market transactions? 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 dissatisfaction to a firm either through the exit option (stop buying the firm's product) or through the voice option (express dissatisfaction to the firm). Similarly workers can signal dissatisfaction by leaving the firm or by voicing their complaints. He further links exit with market forces and economic mechanisms and voice with non-market forces and political mechanisms.

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 withdrawl 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).

The relevance of this line of argument is that the exit option corresponds to the market mechanism in the sense of being exercised through an exchange relationship. The `voice' option may be exercised through numerous routes, e.g. direct complaint, media pressure, organisation of pressure groups. It requires extra-market mechanisms through which it can operate, and suggests that freedom of expression generally is an important ingredient for the operation of an economy using the market mechanisms.

In the context of financial institutions and markets there is the need to consider how and where the 'voice' exercised, and by whom, and whose 'voice' is heard. Further, there is the nature of contracts and relationships between banks and their customers to be considered; e.g. equity involvement, provision of 'management consultancy', (implicit) long term contracts. There is particular significance to be attached to the ways in which

different contractual arrangements and different exercise of 'voice' for the operations of financial exchanges and their impact on the price and availability of funds.

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.

These observations lead onto three significant aspects of the financial sector which may feature in the classification of national financial sectors and systems. First, there is the pervasive feature of credit rationing in the sense that any economic agent would face a limit on how much they could borrow, and could not borrow all they would want to at the prevailing rate of interest. '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). 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 market place was where traders and economic agents meet together for purposes of exchange: the market place could be considered an institution with its rules of behaviour and norms; the stock market can be considered an institution and organisation, which involves institutions and norms. Firms are also organisations and institutions which engage in trade and also engage (within the firm) in production

Banks and other financial institutions are involved in exchange transactions; stock and bond markets are institutions which facilitate exchange. The differences are not that in some cases institutions are involved (and others not) or that in some cases there are market exchanges and others not. It is rather that the nature of the transactions which occur and the contract involved which differ. Further, the stock market facilitates the issue of new equity (at which point it could be said that savers provide fund to firms) and enables the resale of existing equity -- indeed it is the latter which is taken as a major feature of stock markets in providing liquidity.

It cannot be inferred from a statement such as the stock market has grown in importance (as say measured by stock market valuation) relative to banks and other financial institutions that there has been increased marketisation -- that may or may not be the case (which could perhaps be judged by the extent to which savers and investors are matched through formal exchange rather than informal exchange (borrowing from friends and family). This is not to say that any rise in the stock market activities relative to banks is without significance, but rather that the significance arises from, for example, impact of booms and busts in stock market valuations, in the changing relationships between savers and investors.

The conventional terminology of typology on the financial sector is the bank-based/market-based one. This raises question of what is bank and what is a market? The macroeconomic definition of bank would relate to the acceptance of an institution's liabilities as means of payment, and that this is a narrower concept of bank than the legal definition or the way the term has been used in the typologies literature. Distinctions between different types of financial institutions many of whom would be legally classified as banks as deposit accepting institutions (a point developed in Sawyer, 2013c). But banks (however defined) engage in what may be described as market transactions in terms of buying and selling – in effect buying deposits and selling loans (and now trading in securitised financial assets). But the terminology distinguishes between banks and the trading operations on the one hand and (stock) markets on the other where the stock

exchange can be seen as an institutional arrangement facilitating trade. What leads one to being described in terms of institutions and the other in terms of market?

Talking of 'the market' often disguises that market transactions are undertaken by individuals: if 'the market' say operates to impose higher borrowing costs on government, it is obviously because those buying and selling government debt are less inclined to buy.

It can be further argued that 'whatever difficulties we have in defining firms and households, they exist--they are entities. `Markets', on the other hand, are largely figures of speech in economics' (Auerbach, 1988). We may take the view that "[o]f the enormous number of transactions in an economy, only a tiny fraction of them take place in what may literally be described as a 'market'' (Auerbach, 1988) because of, for example, the scale of transactions within firms and within households.

The terminology here can be confusing in that banks are engaged in what may be considered markets – they buy and sell (deposits, loans, financial services). Indeed, a frequent representation in the literature is of demand and supply curves based on, e.g., demand for and supply of loans, investment and savings: see for example the 'financial repression' representation. This can be seen as somewhat misleading for reasons of, e.g., credit rationing, and representing as though a perfectly competitive market.

The key reason for this discussion is to seek a meaning for the notion of a market-based financial system, when all financial institutions including banks are involved in what may be termed exchange transactions and in which what there are involved in would be many be labelled in market terms, e.g. market for loans. It may also help to put meaning on statements such as growth of financial markets. If the institutional arrangements under which a financial asset/liability is exchanged is deemed to be that of a market, we need to be clear on what criteria is so deemed, and then what analysis of markets and their behaviour is appropriate. As mentioned above, there is a tendency to slip from placing the label market on a set of institutional arrangements to applying an 'efficient market' analysis to it.

7. A critique

The first feature of financial systems which is underplayed in these literatures is a combination of lack of attention to the money creating features of the banking system which sets it aside from stock markets. In Passarella and Sawyer (2013) and Sawyer (2013a) we have sought to place some of the features of financialisation into a circuitist perspective. A key element of that perspective is that a circuit is opened when a loan is provided by a bank, where that loan is also money creation (in the form of bank deposit). A crucial element in the expansion of the economy comes from the provision of loans which enables investment to take place which is ahead of prior savings (though savings are created as a result of the investment taking place). This money creation feature of banks is not only crucial for understanding the operations of the financial system, it also means that the role of banks and the role of stock markets are non-comparable. These may be other dimensions (in the circuitist terminology with regard to final finance) where banks and financial institutions and equity markets do have similar roles. The lack of attention to the money creating aspects of banks leads to the bank-based/market-based typology being located within a 'savings leads to investment' view of the world (and hence a rejection of the 'investment leads to savings' view). It leads to expressions (as quoted above) such as 'mobilising' savings, which implies that the savings already exist, whereas the post Keynesian perspective would have to a speak of 'mobilising' investment from which savings will follow.

The second feature is a tendency to present the banking system as rather homogenous within a country with little regard to the different types of banks (e.g. clearing banks, savings banks, investment banks) which generally co-exist. It is readily apparent from the national financial system reports which have come out of the FESSUD project[6] that whilst there may have been shifts towards universal banks, the distinctions between commercial (clearing) banks, investment banks, savings banks remain valid. The different types of

[6] These cover fifteen countries, and are available as FESSUD Studies in Financial Systems on the web site fessud.eu.

banks have different sets of customers, different modes of operation and can have different ownership structures and objectives.

The third feature is the focus on finance—industry relationships, and in much of the literature (particularly the earlier literature) a focus on the role of the financial sector in industrialisation and economic development. This focus effectively ignores the lending to government (and in turn the crowding out type debates). The relationship between the financial sector and households has to be brought in as more than the households are provider of funds to the financial system. The provision of funding and mortgages for home purchases can often be the role of specialist banks, and is generally a function of banks rather than markets. The growth of household debt and borrowing from banking system has been seen as an important ingredient in the financialisation processes (as further discussed below). The sustainability/instability aspects of that can be significant; and of course perceived involvement of the mortgage and household lending in the generation of the financial crisis.

The third is a tendency to play down the roles of credit rationing and the partial or complete exclusion of some groups from credit. Credit rationing is a pervasive feature of credit availability, by which we mean that the 'price' of credit is dependent on the provider assessment of the likelihood of default, late payments etc.. This will often be labelled as risk assessment (or similar) but the term 'risk' in this context is potentially misleading in so far as 'risk' can be viewed in terms of the properties of a firmly based probability distribution (often summarised in terms of variance as a measure of risk). But in a world of uncertainty, there are (in general) no such firmly based probability distributions (in the way there would be for the rolling of a dice).

The fourth is a lack of attention to financial instability and fragility. This, we would argue, is a consequence of the loanable funds: savings leads to investment setting in which the bank-based/market-based typology is analysed. This does not then bring in the money creating properties of the banking system in the loan process, and the possibilities for the credit creation process interacting with fluctuations in investment intentions (e.g. through

the operation of the accelerator-type mechanism, through rise and fall of 'animal spirits') to produce cycles of boom and bust. There has also been a down-playing of the volatilities of stock market prices, and the effects which such movements in prices have on economic activity and the creation of conditions for stock market crashes.

8. Concluding remarks

It has been argued that the terminology of bank-based vs. market-based is rather misleading with the suggestion that a bank-based system is not a market system (in the sense of trade and exchange). It also suggests that a stock market is not an institution. Indeed part of our critique can be summarized in saying that banks are institutions who engage in market activities (broadly interpreted) as financial intermediaries, and equity markets are institutions involving market-makers facilitating market exchange. It is also argued that there is a sense in which the two systems are on a par in being alternative ways in which savings are allocated to investment, and neglects the significant role of (commercial) banks as money creators involved in investment causes savings, loans cause deposits relationships. It is further argued that banks and financial institutions have diverse structures, ownership, objectives etc., within and between countries which are not reflected in the dichotomy. It is also noted that banks have increasingly moved from the 'originate and retain' to the 'originate and distribute' mode of operation with consequent engagement in securitization.

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THE ABSTRACT OF THE PROJECT IS:

The research programme will integrate diverse levels, methods and disciplinary traditions with the aim of developing a comprehensive policy agenda for changing the role of the financial system to help achieve a future which is sustainable in environmental, social and economic terms. The programme involves an integrated and balanced consortium involving partners from 14 countries that has unsurpassed experience of deploying diverse perspectives both within economics and across disciplines inclusive of economics. The programme is distinctively pluralistic, and aims to forge alliances across the social sciences, so as to understand how finance can better serve economic, social and environmental needs. The central issues addressed are the ways in which the growth and performance of economies in the last 30 years have been dependent on the characteristics of the processes of financialisation; how has financialisation impacted on the achievement of specific economic, social, and environmental objectives?; the nature of the relationship between financialisation and the sustainability of the financial system, economic development and the environment?; the lessons to be drawn from the crisis about the nature and impacts of financialisation? ; what are the requisites of a financial system able to support a process of sustainable development, broadly conceived?'

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