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**Financial development, financialisation and economic growth**

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**Abstract:** The paper reviews the theoretical arguments which have been advanced on the relationships between economic growth and growth of the financial sector. This is followed by a similar discussion on financial repression and financial liberalisation. Growth of the financial sector and de-regulation are considered as two important features of financialisation. The differences between bank-based and market based financial systems are briefly explored as is the question of whether the financial sector is now too large. The paper is completed by overviews of the empirical results on the relationship between growth of the financial sector and economic growth and on financial liberalisation.

Key words: financial development, financial liberalisation, financial repression, financialisation

**Journal of Economic Literature classification:** G01, G18, G20

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## Financial development, financialisation and economic growth

Malcolm Sawyer

### 1. Introduction

The key issue on which this paper is focused is the relationship between finance and economic growth. There has been a long-standing literature which has been concerned with the relationships between what is often termed economic development and financial development and their causal natures. The discussion below draws on that literature. The term economic development (or just development) is widely used in these literatures. It can be used in the sense of the emergence of a monetised market economy and in much of the earlier literature this was in effect the focus. In a similar vein, it can refer to processes of industrialisation. In more recent literature, economic development and growth of GDP have been used interchangeably. In the discussion below we seek to avoid using the term development with its overtones of beneficial changes, and rather seek to be more specific. However, since development is widely used in the literature it may not be always possible to avoid the use of that term. Financial development can be viewed in terms of the growth and evolution of the financial sector and would generally be seen to involve increased monetisation of the economy, upward changes in the scale of the financial sector (e.g. measured by the relative scale of banks in terms of deposits and loans, size of the stock market relative to GDP) and financial innovations. 'Financial development occurs when financial instruments, markets, and intermediaries ameliorate—though do not necessarily eliminate—the effects of information, enforcement, and transactions costs and therefore do a correspondingly better job at providing the five principal functions' (Levine, 2005, pp.869-70).

Financial development has often been viewed as held back by 'financial repression' (further discussed below) whereby government regulations and restrictions on the banking system (and the financial system more generally) on, for example, interest rates which can be charged on loans, paid on deposits, the products which can be supplied by banks, and the volume and direction of loans. Financial liberalisation and de-regulation are then viewed (as in the McKinnon and Shaw hypothesis) as releasing financial

development, and as thereby stimulating economic development. These ideas and the related evidence are critically discussed below.

Financialisation is used in the title for the simple reason that it enables us to discuss some, but not all, key features of financialisation and their relationships with economic growth and development (however defined). Financialisation is associated with the growth of the scale of the financial system (in effect what in much of the literature is called 'financial deepening') in an era of de-regulation ('financial liberalisation'). In a widely quoted definition 'financialization means the increasing role of financial motives, financial markets, financial actors and financial institutions in the operation of domestic and international economies' (Epstein, 2005). Financialisation in the past three decades or so has been associated with the emergence of a wide range of financial instruments including derivatives, mortgage backed securities etc. and the processes of securitisation. The terminology which has been generally used in the (mainstream) literature includes financial development, financial deepening, and financial liberalisation and these could be seen as relating to the processes of financialisation; though as such it is a reminder that financialisation in this sense is a long-standing phenomenon. Financial deepening and development is only one, albeit important, feature of financialisation and hence the discussion here of the effects of financialisation on economic development covers only parts of the effects. But it is significant that the traditional literature has focused on growth of the banking system (particularly in terms of bank deposits) and of the stock market, whereas financialisation in the past three decades has involved securitisation, and much higher ratios of assets and liabilities relative to GDP. As indicated below, the recent phases of financialisation have not in general involved higher levels of savings and investment (relative to GDP).

## **2. The relationships between economic growth and financialisation**

This section considers the general arguments on the causal relationship between two aspects of financialisation, namely growth of the financial sector ('financial development'; 'financial deepening') and the next section financial liberalisation (de-regulation) and economic growth.

We can start with the observation that '[e]conomists disagree sharply about the role of the financial sector in economic growth. ...Nobel Laureate Robert Lucas (1988, p.6) dismisses finance as an 'over-stressed' determinant of economic growth. 'Joan Robinson (1952, p.86) famously argued that 'where enterprise leads finance follows'. From this perspective, finance does not cause growth, but at the other extreme, Nobel Laureate Merton Miller (1998, p.14) argues that, '[the idea] that financial markets contribute to economic growth is a proposition too obvious for serious discussion'. Drawing a more restrained conclusion, Bagehot (1873), Schumpeter (1912), Gurley and Shaw (1955), Goldsmith (1969), and McKinnon (1973) reject the idea that the finance-growth nexus can be safely ignored without substantially limiting our understanding of economic growth' (Levine, 2005, p.867). Patrick (1966) identified the difficulty of establishing the link between financial development and economic growth. McKinnon (1988) developed the argument when he stated that: 'although a higher rate of financial growth is positively correlated with successful real growth, Patrick's (1966) problem remains unresolved: What is the cause and what is the effect? Is finance a leading sector in economic development, or does it simply follow growth in real output which is generated elsewhere?' (p. 390).

The term 'bank' can be used in a variety of ways (and for further elaboration see Sawyer, 2013). It may refer to a legal definition in which the institution is authorised to accept deposits from the public, and this is likely combined with regulation over their activities and can be with access to the central bank for liquidity. A narrower perception of banks, which is reflected in the manner in which banks are often portrayed in macroeconomic texts, is institutions whose liabilities (that is deposits) are generally accepted as a means of payment and which can be readily transferred from one economic agent to another: these may be termed clearing banks. For banks in this sense its liabilities are the deposits held and its assets include loans made: banks then have the ability to create money through the loan process. Views differ on the relationship between loans and deposits – that is the credit multiplier approach (an exogenous money) in which deposits precede loans, and an endogenous money approach in which loans precede deposits.

The growth of banks (as measured by deposits say) in the context of financial development can be interpreted in terms of banks providing the main vehicle for savings (in the form of bank deposits) which are then allocated for investment purposes. The perceived benefits of this arise from the pooling of savings, the monitoring functions of the banks etc., are further discussed below. This suggest though a broad definition of banks, including those which may be otherwise labelled savings banks, investment banks. These would be financial institutions whose liabilities may not be accepted as means of payments, and hence financial institutions which do not create money through the loans process.

An alternative view is that banks provide loans which finance investment expenditure; in a circuitist framework this enables a circuit to open, investment to take place and thereby savings are generated, and loans create deposits (Passarella Veronese and Sawyer, 2013). The significance of this is that not only are banks the creators of money (in the form of bank deposits) but also that production and investment require financing (that is prior possession of money). The development of a banking system whose liabilities are counted as part of the effective supply of money then becomes an important ingredient in the promotion of investment. This is reflected in the view that bank credit 'is the pavement along which production travels, and the bankers if they knew their duty, would provide the transport facilities to just the extent that is required in order that the productive powers of the community can be employed at their full capacity' (Keynes, 1930, p. 220).

The evolution of the financial system may be represented in terms of Chick (1986, 1993) stages of banking: this framework is helpful in setting out the different forms of banking.

'In the first stage of banking development, money is deposited in the banks as a relatively safe way to save, but claims on the banks are not widely used in transactions: bank liabilities are not yet a generally-acceptable means of payment. In this stage, therefore, banks act purely as intermediaries between savers and the investors who borrow from them. ...In the second stage, claims on deposits are widely used as a means of payment.' At this stage the 'deposit multiplier' begins to apply, the banks 'become more vulnerable to liquidity crises and collapse of confidence, and the lender of last resort principle for the central bank become accepted. 'In the third stage of banking development, interbank

lending arises. ...In the fourth stage, a central monetary authority accepts the function of lender of last resort without waiting for a crisis to develop. .. In stage four, the stock of bank reserves becomes responsive to demand from the banks. ... Stage-five banks meet their demands for loans and then 'fund' them by actively bidding for deposits with higher interest rates ....The next, sixth, stage has now appeared: 'securitisation', the process of devising marketable forms of lending, secured by assets that are, themselves, of course, marketable. In one sense this represents a complete change in the traditional style of bank lending; but it can be seen as a logical development of the paring down of liquidity that has occurred steadily through stages one to four.' (Chick, 1993, pp. 80-84)

This portrayal is significant for pointing to the changes in the structure and nature of the banking system, with the possibility that the stage of banking is relevant for the impact which the scale of the banking sector has on economic growth.

There are a variety of informal financial arrangements, sometimes described as 'curb markets', and pooling of financial resources. These are informal in the sense of not being regulated or registered in any way. The growth of the formal financial sector may well come at the expense of the informal sector, and measures of the growth of the formal sector overstate the overall growth of the financial sector.

In an associated paper (Passarella Veronese and Sawyer, 2013) some of the key and interlinked debates on the causal relationships between savings and investment, and the nature of money; and those debates are relevant here: we briefly summarise those debates here. The Keynesian proposition is that investment drives savings in that (in a closed economy) the volume of investment expenditure which occurs in a period determines (in a causal sense) the volume of savings. In a more extended analysis this would be re-phrased to say the volume of injections (investment, government expenditure, exports) determine the volume of leakages (savings, tax revenue, imports). The neo-classical pre-Keynesian proposition is that the volume of savings which is crucial for the volume of investment; and the volumes of savings and investment will be brought into

equality with an equilibrium rate of interest ('the natural rate of interest')<sup>1</sup>. The (post Keynesian) endogenous money approach<sup>2</sup> and the circuitist approach<sup>3</sup> view money as credit money created by the banking system (including the Central Bank) in the process of loan creation; specifically investment expenditure occurs through the provision of loans to finance the expenditure: the investment expenditure then takes place, and through further expenditures and the generation of income, savings is undertaken. At the end of the circuit, loans are largely repaid, the money created is then destroyed and savings generated equal to the initial investment expenditure. The savings which have then occurred (initially as the holding of money) have to be re-allocated between the savers and the investors. The financial system then has two separate functions: provide through banks initial finance for investment, and through financial institutions and markets to reallocate savings.

One author called on in support of the financial development leads to economic development is Schumpeter. He sought to develop a credit theory of money (as opposed to a money theory of credit) placed the need for credit to enable production to come to fruition. Schumpeter argued that someone 'can only become an entrepreneur by previously becoming a debtor.....What [the entrepreneur] first wants is credit. Before he requires any goods whatever, he requires purchasing power. He is the typical debtor in capitalist society' (p. 102). In this process, the banker is the key agent: 'The banker, therefore, is not so much primarily the middleman in the commodity 'purchasing power' as a producer of this commodity ..... He is the ephor of the exchange economy' Schumpeter, 1911, p. 74). This involves the credit creation process, and links with the endogenous view of money. It is the ability of banks to create spending power through loans which is a feature of growth and expansion.

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<sup>1</sup> The natural rate of interest 'is the rate of interest which would be determined by supply and demand if no use were made of money and all lending effected in the form of real capital goods' (Wicksell 1936, p.102); hence it would be seen as the rate of interest which would exist in a non-monetary, non-financial world (in equilibrium).

<sup>2</sup> See, for example, Dow (2006), Lavoie (2006).

<sup>3</sup> See, for example, Gnos (2006), Realfonzo (2006)



'Schumpeter maintains that, in order to escape from such a result, it is necessary to take into account three monetary aspects of the capitalist economic development: (i) the realization of new productions which break off the stationary equilibrium and begin the development process, requires the introduction of additional means of payment into the system relative to the quantity of money circulating in the circular flow (cf. Schumpeter (1912), p.108; engl. trans., pp. 72-3; (1939), pp. 110-1; (1970), p.297); (ii) such additional means of payment are made available by the bank supply of credit and, therefore, represent newly created 'claims' on money which carry out its same functions; (iii) unlike money circulating in the stationary state, the availability of 'claims' on money does not vouch for a previous personal or material contribution to the economic activities but instead allows the participation to the 'national dividend' before having brought any service or good' (Messouri, 2010, pp.10/11).

The manner in which the financial sector (and its development) has been argued to facilitate economic growth can be seen in terms of the effects on savings behaviour, investment funding and the 'quality' of investment. Levine, for example, argues that the financial system provides the following functions: 'produce information ex ante about possible investments and allocate capital; monitor investments and exert corporate governance after providing finance; facilitate the trading, diversification and management of risk; mobilize and pool savings; ease the exchange of goods and services' (Levine, 2005, p. 869). He has recently argued that 'finance promotes economic growth primarily by improving the efficiency of capital allocation, not by increasing investment' (Levine, 2011, p.272). On this view, the financial sector is not just a facilitator in linking together savings and investment, but also performs a range of in effect monitoring roles. The significant element here is, of course, that a well-functioning financial sector is postulated to raise the rate of growth (through more and higher quality investment). The empirical difficulty is measuring the performance of those functions, whereas what is often measured is some dimension of the size of the financial sector (e.g. bank deposits relative to GDP). The question may be also asked is whether the manner in which the financial sector has grown

in the past three decades through securitization and in the ratio of assets and liabilities to GDP has improved those functions and aided economic growth.

The endogenous growth literature has suggested that financial intermediation has a positive effect on steady-state growth. Pagano (1993), in an endogenous growth approach, introduces financial development into the growth picture by viewing financial intermediaries as absorbing resources such that only a fraction of savings is channelled into investment; the fraction is smaller when the financial sector is inefficient and 'burdened by taxation (in the form of high reserve requirements, transaction taxes, etc.) and by restrictive regulations, translating into higher unit margins'. Then if financial development reduces that leakage of resources, it improves the growth rate. Financial intermediation is further growth promoting through '(i) collecting information to evaluate alternative investment projects; and (ii) inducing individuals to invest in riskier but more productive technologies by providing risk sharing.' (p. 615). There may also be an effect of financial development on savings, though here the effect on growth is ambiguous.

The view that economic growth leads to growth of the financial sector was expressed by Robinson (1952) (as in the quote reported above). Growth may be constrained by credit creation in less developed financial systems, in more sophisticated systems finance is viewed as endogenous responding to demand requirements. This line of argument suggests that the more developed a financial system is the higher the likelihood of growth causing finance. The growth of the stock of money (and indeed the evolving forms of money) could be anticipated to be closely related with the monetisation of the economy and the development of trade. This is not to see money as necessarily evolving to supplement and replace barter but rather that more extensive trade will inevitably involve more money used for transactions purposes. Insofar as the development of trade, associated specialisations are stimuli for economic growth, there will be some association between the stock of money (in 'real terms') and economic growth, with some element of bi-directional causation. It is significant to note here that financial development (particularly of a bank-based system) is often measured by a measure of the stock of

money (M2 or similar) relatively to GDP. This measure of money is, of course, broader than money as a means of payment which would be aligned with M1.

The arguments outlined above could be summarised as follows. The development of the financial sector encourages saving through the provision of liquid financial assets as a vehicle for saving and raises the quality of investment through monitoring etc.. The combination of those would raise the rate of growth of the economy. These are predominantly theoretical arguments on the linkages from financial sector to the real sector, and the question must be whether the financial sector works in the ways envisaged in the theoretical arguments. The way in which financial development is defined (see quote from Levine, 2005 in introduction) identifies development with beneficial outcomes, and there is an element of truism to the statement that financial development fosters economic development. Further, financial development is often measured in terms of the scale of the financial sector such as bank deposits (relative to GDP), and stock market valuation. When bank deposits are the major vehicle for savings, then it could be expected that there will be some relationship between bank deposits (relative to GDP) and growth – the scale of the relationship depending on the degree to which bank deposits are the major form of savings and the degree to which savings and investment are related<sup>4</sup>. As Ang (2008) argues, 'highly aggregated measures of financial development, such as M2/GDP and bank credit/GDP, are often used to proxy financial development for convenience, despite the possibility that different components of the financial system (stock markets, banks, insurance companies, etc.) may have different impacts on economic growth. As noted by Gurley and Shaw (1955), in the early stages of financial development, financial intermediaries are predominantly banks, providing lending and transactions services. Under such circumstances, money stock is a reliable proxy to measure the extent of financial intermediation. However, as the financial system evolves, the use of money stock becomes inappropriate with the emergence of other types of more complex financial intermediaries. Furthermore, it appears that using different measures

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<sup>4</sup> This is not an argument that savings leads to investment, but rather a reflection of the view that investment expenditure generates savings.

of financial development may give rise to different conclusions about the way financial development and economic growth are related (see McCaig and Stengos, 2005; Stengos and Liang, 2005)' (pp.567-8). But even in the early stages of development, use of measures relating to the banking sector refer to the formal sector and hence ignore the role of the informal sector and 'curb markets' which perform some of the functions of a financial system.

Measuring financial development in terms of bank deposits, stock market valuation etc. and then relating it with economic growth raises the issues of causation which have been hinted at in this section and to which brief mention is made below.

The theoretical arguments advanced above can be interpreted as indicating that there are ways by which an expanded financial system can raise savings and investment, and by which the investment funds may be employed more productively. However, the major questions should be whether the financial system does operate in the ways envisaged and whether the ways in which the financial systems have expanded and evolved in the past few decades are conducive for the encouragement of savings and investment, and the direction of finance and funds towards productive investment. Some evidence relating to the first question could be gleaned from that produced (and surveyed below) on the relationships between financial development and economic growth, though with the warnings just mentioned on causality. With regard to the second, regarding the rapid growth of securitisation and trade in existing financial assets, it is not obvious that such growth is conducive for savings and investment.

### **3. Financial repression and financial liberalisation**

McKinnon (1973) and Shaw (1973) propounded the 'financial liberalisation' thesis arguing that government restrictions on the banking system restrain the quantity and quality of investment. Financial liberalisation was to remove 'financial repression' which referred to a high degree of regulation of the banking and financial system in many countries, and specifically control by Central Bank and government of the level of interest rates and the allocation of credit. These were usually perceived to involve the enforcement of interest rates on loans below the 'market level', and associated direction of loans towards those

sectors given preferential treatment in the allocation of credit (and away from the sectors without such treatment). Those policies involved financial regulations and state-owned or state-directed banks, all of which were used for a range of economic and social purposes. Central banks in both developing and developed countries supported those policies and activities through a variety of tools and mechanisms, most importantly through subsidising credit and regulating financial institutions to direct credit to specific sectors and for specific purposes (Epstein, 2006).

The recommendation of the financial liberalisation proponents was the removal of ceilings on interest rates and scrapping of credit allocation policies. This would enable equilibrium between savings and investment to be established since 'there is widespread agreement that flows of saving and investment should be voluntary and significantly decentralized in an open capital market at close to equilibrium interest rates.' (McKinnon, 1991, p.12) (quoted in Rousseau and Wachtel, 2011). The effects of financial liberalisation were argued to be an increase in the quantity and in the quality of investment through a more efficient allocation of credit. In the case of liberalization of international capital flows there are added benefits: both the private and the public sectors have access to capital and other resources, such as technology, which are not available domestically due to low income, savings and growth, as well as to capital flight. An increase in private capital flows would raise capital stock, productivity and investment, along with economic growth and employment. All these increase efficiency and policy discipline. Consequently, liberalization of capital flows is important for the promotion of improved performance, particularly in respect of investment and growth.

McKinnon (1973) and Shaw (1973) stressed two other issues: first, financial repression affects negatively the efficient allocation of savings to investment; and second, through its effect on the return to savings, it has a restraining influence on the equilibrium level of savings and investment. In this framework, therefore, investment suffers not only in quantity but also in quality terms since bankers do not ration the available funds according to the marginal productivity of investment projects but according to their own discretion. Under these conditions the financial sector is likely to stagnate. The low return on bank

deposits encourages savers to hold their savings in the form of unproductive assets such as land, rather than the bank deposits which are potentially productive when lent on for investment purposes. Similarly, high reserve requirements restrict the supply of bank lending even further whilst directed credit programmes distort the allocation of credit since political priorities are, in general, not determined by the marginal productivity of different types of capital.

The financial liberalization thesis argues for the removal of interest rate ceilings, reduction of reserve requirements and abolition of directed credit programmes. In short, liberalise financial markets and let the free market determine the allocation of credit. With the real rate of interest adjusting to its equilibrium level, low yielding investment projects would be eliminated, so that the overall efficiency of investment would be enhanced. Also, as the real rate of interest increases, saving and the total real supply of credit increase, which induce a higher volume of investment. Economic growth would, therefore, be stimulated not only through the increased investment but also due to an increase in the average productivity of capital. Moreover, the effects of lower reserve requirements reinforce the effects of higher saving on the supply of bank lending, whilst the abolition of directed credit programmes would lead to an even more efficient allocation of credit thereby stimulating further the average productivity of capital.

A similar type of argument is advanced in King and Levine (1993) to the effect that in their theoretical model government interventions lower the equilibrium growth rate. They speak in terms of the taxes on income from financial intermediation of the explicit form (e.g. taxes on gross receipts of banks, taxes on loan balances) and 'implicit or quasitaxes on financial intermediaries (including non-interest-bearing reserve requirements, forced lending to the government and to state enterprises, and interest ceilings on various loans and deposits' (p.526). In the empirical section of their paper, King and Levine (1993) examine financial sector reforms in Argentina, Chile, Indonesia, Korea, and the Philippines. Their broad finding is that the reforms lead to increases in the financial development indicators (presumed to lead to higher growth), but in three cases out of five there was a financial crisis following the reforms, and it is 'reforms, it is also clear that the

broad indicators do not indicate whether the underlying financial reforms are sustainable'(p.536).

These papers by McKinnon (1973) and by Shaw (1973) were among the promoters of de-regulation and liberalisation, and portrayed financial liberalisation as releasing constraints on financial sector, leading to financial development and deepening, and to economic growth (on the basis that investment would rise and the capital stock grow). Financial liberalisation and de-regulation have been viewed as important ingredients in the present financialisation era, and hence the arguments of authors such as McKinnon (op. cit.) and Shaw (op. cit.) highly relevant as setting out some general arguments for the favourable impacts on the real economy of financial liberalisation. In turn, financial liberalisation and de-regulation are viewed as important elements of financialisation particularly in the period since the mid-1970s

The McKinnon and Shaw arguments are clearly located in a savings leads to investment, deposits leads to loans framework, and hence on a particular view of banking. In the mainstream view the causal relationships are seen to run from savings to investment (so that there can be talk of the mobilisation of savings for investment) and from deposits to loans such that more deposits placed in the banking system which may be a reflection of more savings and/or expansion of the banking system leads to more loans and more investment. In the post Keynesian perspective, the causal relationships are perceived to be the reverse running from investment expenditure to savings, and since the investment expenditure has to be financed, loans have to be available and loans create deposits.

The conclusions drawn from the 'financial repression' literature can be critiqued along a number of lines, and we highlight the following<sup>5</sup>. First, it is assumed there that savings constrain investment, and under financial repression there is in effect a gap between the willingness to save and the willingness to invest, with the former less than and hence constraining the latter. The financial liberalisation thesis views the lifting of constraints on interest rates (and more generally de-regulation) leading to a rise in interest rate will

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<sup>5</sup> Arestis (2006) provides a very much more extensive list.



stimulate savings and enable there to be a higher level of investment. A rise in interest rates would usually be expected to lower the demand for investment, but in the case of financial repression it has been the availability of (savings) funds which has been the constraining factor on investment. Under financial liberalisation, the argument would be that the desire to invest (in the face of higher interest rates) diminishes but the realisation of investment increases through the greater availability of savings. There is clearly the assumption of a pent-up demand to undertake investment under financial repression, and one which the banks had not been willing to satisfy through the provision of loans. In an economy in which there is bank credit money and in which 'loans make deposits', banks would be willing to provide loans for investment purposes (provided that their assessment of the proposed investment was favourable). The purported favourable effects of financial liberalisation then depend on there being previously pent-up demand to undertake investment, and for that investment to be productive investment. There are other outlets for savings (provided they occur) in the form of purchase of existing assets, real such as property or financial with the possibility of asset price bubbles in those assets. These arguments are supported by, for example, the findings of Ndung'u (1997) in a survey of the introduction of orthodox financial liberalisation in nine English speaking African countries. He concludes that 'the results of financial liberalization have been dismal; real interest rates have been negative for most countries and savings, investments and growth have not responded' ((p. 38). Stein (2010) argues that 'there is also little evidence of the direction of causality between savings and growth assumed in McKinnon-Shaw'. He cites the 'The World Bank (1993) found the causation from growth to savings in five countries (Indonesia, Japan, Korea, Thailand and Taiwan), ambiguity in two (Hong Kong and Malaysia) and in one it was due to other factors (in Singapore, the state provident fund was salient)' (p.300). Weller (2001) finds from his empirical work that 'the vulnerability of emerging economies to currency and banking crises increases after FL [financial liberalisation]. External liberalisation allows more liquidity to enter an emerging economy, which, put somewhat simplistically, can then, thanks to internal liberalisation, find its way into productive and speculative projects. What is common to both types of crises is a significant increase in the



divergence between real and financial trends, which is taken as an indication for growing trend of more speculative financing. Also, due to this divergence between the real and the financial sector, the chance of a crisis increases faster after FL than before.’ (Weller, 2001, p.122).

Stein (2010) from a survey of the literature finds that ‘the elasticity of the savings relationship is either insignificant or when significant, it is rather small. .... The overwhelming evidence has even encouraged McKinnon (1993) to abandon the higher interest to prior savings argument in favor of a rise in the ‘quality’ of investment after liberalization.’

These (and other findings) suggests that many of the assumptions on which advocacy of financial liberalisation is based do not follow through with regard to savings and investment. Further, the instabilities of the financial system, largely ignored by the financial liberalisation advocacy literature, are often exacerbated by financial liberalisation.

Second, the advocacy of financial liberalisation is often based on a model of banking in which deposits make loans, and does not make any allowance for the credit creation processes which may be unleashed by financial liberalisation and the relaxation of controls over the volume of credit. As Isenberg (2006) argues, views on regulation and on de-regulation rest on (often implicit) views on the nature of the financial system and the nature of money and liquidity. Dow (1996) argues that ‘the case for regulation rests on the very special economic role of money and the uncertainty associated with it. This uncertainty in turn renders free banking unworkable since the proposal requires the non-bank public to assess the expected value of the portfolios of the issuers of money. Adequate knowledge could only be generated if money-issuing were concentrated in a dominant institution, or set of institutions, which operated like a central bank. This outcome would only occur, and be socially acceptable, given a high degree of social cohesion. Rather than eradicating regulation on the grounds that it is flawed, and risking financial chaos, the more appropriate response is to consider how to improve regulation.’ (p.698). The processes of financial liberalisation (and a general trend towards de-

regulation though there are also changes in the form of regulation involved) may well exacerbate the tendencies towards instability. This was expressed as 'Financial liberalization produces an upward step-change in the intensity of the domestic drive towards financial innovation ..... It thereby speeds up the process by which debt ratios of commercial concerns and financial institutions rise, escalating financial fragility, and it hastens the day when banking and financial crises loom' (Arestis and Glickman, 2002, pp. 244-245).

#### **4. Bank-based vs. market-based systems**

The distinction is often drawn between bank-based and market-based financial systems (see Sawyer, 2013 for a critical review). In a bank-based system, banks are seen to take 'a leading role in mobilizing savings, allocating capital, overseeing the investment decisions of corporate managers, and providing risk management vehicles'. In market-based system, the '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).

Financial development and deepening has not surprisingly involved the growth of the banking sector and of financial markets. It could be anticipated that some parts of the banking system do not grow relative to GDP (or similar measure) – specifically bank deposits which are also the means of payment would be held to aid transactions and as such rise roughly in line with economic activity. In a similar vein the holding of financial assets by households (directly or indirectly) could be anticipated to keep pace with wealth as representing cumulative savings, but not rise relative to GDP. Thus after some point this would argue that the scale of the financial sector as measured by bank deposits and stock market valuation would not rise (relative to GDP).

The debates over the relative merits of the two types of systems lie outside the specific focus of this paper. However, we can remark first that the view has often been expressed that the bank-based system is superior to the market-based system in term of performance. For example, Albert (1993) expresses the view that '[o]f the two models of capitalism, it is the Rhine variant [bank-based] which is plainly more efficient than the

neo-American [market-based], whether considered from the economic point of view or from the social angle' (Albert, 1993, p. 191). Further, '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). Yet the anticipation by Albert and others has been that the market-based components of the financial system grow relative to the bank-based components, with some degree of convergence on a market-based system.

The national financial system reports of the FESSUD project as synthesised in Passarella Veronese (2013) supports the view that the market-based components grow relative to the bank-based component. In a similar vein Demirguc-Kunt, Feyen, and Levine, (2011) 'find that as economies develop, the services provided by financial markets become comparatively more important than those provided by banks' (Abstract). Moreover, deviations of a country's actual financial structure from the estimated optimal structure are associated with lower levels of economic activity. Financial structure matters.' However, as Hardie and Howarth (2013) and others have argued, banks have engaged in securitization and their trading and the financial system takes on market-based banking features.

The research on the comparative performance of bank-based and market-based systems has not produced any clear superiority of one system over the other. In a wide ranging review, Levine (2005) concludes that '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' ([p. 919])

## 5. The size of financial sector: now too large?

The general line of argument above has been to the effect that financial development and economic development are positively related. And, of most significance, has been the view that financial development and deepening would raise the rate of economic growth. As indicated above financial development and deepening have generally been measured by rather crude measures such as bank deposits to GDP and stock market valuation (also relative to GDP). In this section we ask a number of related questions. The first is that since the financial sector absorbs resources (often highly paid resources at that) which are then not available for deployment in the real sector does a larger financial sector detract from growth of the real sector (though this may also raise the question of the meaning of value added of the financial sector in the national income accounts). The second is whether the ways in which the financial system has evolved and grown in the past three decades been conducive for economic growth. A (the?) major feature of financialisation is this regard has been securitization and the growth of 'fictitious' capital, with the much larger ratios of financial assets and liabilities to GDP and to productive assets (see Passarella Veronese, 2013 for details). The major focus on the financial development literature has been on the development of banks and the stock market.

Some of the doubts on the scale of the financial sector were expressed by Tobin (1987) when he wrote that 'I confess to an uneasy Physiocratic suspicion, perhaps unbecoming in an academic, that we are throwing more and more of our resources, including the cream of our youth, into financial activities remote from the production of goods and services, into activities that generate high private rewards disproportionate to their social productivity'. This could be seen as an early expression of views that the highly trained mathematicians and physicists employed on Wall Street would have been more socially useful employed as scientists and engineers. It could also be linked with his proposals for what became labelled a 'Tobin tax' – a tax on financial transactions to put 'some sand in the wheels' and reduce the volume of transactions of a short-term nature.

Epstein and Crotty (2013) extend this argument when they write that 'Tobin suggests that the financial sector at worst can be unproductive. But a broader perspective, based in

different ways on the works of Karl Marx and Hyman Minsky, would suggest that the financial sector can have more sinister impacts: that it can engage in exploitation and also destroy value.’ (p. 5). They continue by producing a ‘very preliminary range of estimates’ which ‘suggests that the financial sector in the United States is extracting 2- 4 times as much income relative to the services it provides to the real sector in the decade of the 2000’s as it did during the high growth period of the 1960’s. This suggests that the financial sector may need to be only one-half to one-quarter as large as it is currently to serve the existing needs of the real sector.’ ([p. 13]).

The second relates to the ‘too big’ financial sector arguments, and whether financial sector (or financial institutions) can be ‘too big’. One line of approach (Sawyer, 2010, Epstein and Crotty, 2013) is to consider the perceived roles of the financial sector, and judge the scale of the financial sector against the fulfilment of those roles. The most notable one here is the linking of savings and investment, and the impact which the operations of the financial sector have on the efficiency of the linkage between savings and investment, the stimulus to savings arising from the ‘liquidity’ function of the financial sector. If the financial sector were the conduit through which funds flowed and as represented in a demand/supply framework (loanable funds) then the scale of the financial sector would be (approximately) equal to the volume of savings in that (on say an annual basis) funds equal to the volume of savings would pass through the financial sector on their way to the investors. The argument can be modified to allow for internal financing (which can be rather extensive). In the other direction, a role of the financial sector could be seen as sale of existing financial assets as individuals rearrange their asset portfolio.

This line of argument would suggest that further expansion of the financial system beyond a certain point would not be related with the savings—investment relationship. Since, the link between financial development and economic development comes essentially from the savings—investment links, then the relationship is called into doubt. This can be conveniently summarised by the following quote: ‘Finance is a powerful tool for economic development but with important non-linear effects. Critically, poorly designed regulatory framework can reinforce the fragility inherent in financial systems, and cause economic

damage. This also implies that the financial sector can grow too large for society's benefits. Even twenty to thirty years after financial liberalisation, high-income countries still have to learn how to live with the genies they let out of the bottle and harness it to the benefit of their societies' (Beck, 2013).

## 6. Financial development and economic growth: the empirical results

Financial deepening is often measured in terms of the ratio of broad money (M2 or similar) to GDP, and much of the content of broad money is deposits in the banking system (where, as indicated below, banks are seen as those institutions whose liabilities are accepted as means of payment). The justification for that would come from a bank-dominated financial system in which savings are predominantly held as bank deposits, and correspondingly, the bulk of external funding for investment comes from banks (usually in the form of loans).

Levine (2005) in his extensive review of the empirical literature concluded that 'A growing body of empirical analyses, including firm-level studies, industry-level studies, individual country-studies, time-series studies, panel-investigations, and broad cross-country comparisons, demonstrate a strong positive link between the functioning of the financial system and long-run economic growth. While subject to ample qualifications and countervailing views noted throughout this article, the preponderance of evidence suggests that both financial intermediaries and markets matter for growth even when controlling for potential simultaneity bias. Furthermore, microeconomic-based evidence is consistent with the view that better developed financial systems ease external financing constraints facing firms, which illuminates one mechanism through which financial development influences economic growth. Theory and empirical evidence make it difficult to conclude that the financial system merely—and automatically—responds to economic activity, or that financial development is an inconsequential addendum to the process of economic growth.' ([p. 921])

In a similar vein, 'researchers have provided additional findings on the finance-growth nexus and have offered a much bolder appraisal of the causal relationship: firm-level, industry-level, and cross-country studies all suggest that the level of financial

development exerts a large positive effect on economic growth.’ (Demirgüç-Kunt and Levine, 2001, p. 4). These results were viewed as confirming the earlier work of Goldsmith (1969) who had shown ‘that banks tend to become larger relative to national output as countries develop. He also presented evidence suggesting that nonbank financial intermediaries and stock markets frequently—though certainly not always—grow relative to banks in size and importance as countries expand economically.’ (p.3)

Ang (2008) surveys the main findings of cross-country analyses. He concludes that ‘on the whole, the results of a majority of these studies seem to suggest that financial development exerts a positive impact on economic growth. Although these studies have made significant contributions to the literature for understanding the finance–growth nexus, the results are subject to the several criticisms’ which he then outlines including lack of attention to causality issues and difficulties of reflecting institutional differences between countries .

The relationship between financial development and economic growth in the past three decades or so in the industrialised world is of particular interest. Casual observation may suggest that the general growth of the financial sector and the enhanced size of that sector have not obviously been associated with any faster growth<sup>6</sup>. Indeed it is often argued that growth in the Western industrialised economies has been somewhat slower over the past three decades of financialisation. Further, the literature on financialisation has indeed suggested a variety of ways in which the processes of financialisation may have diminished investment (see, for example, Hein, 2011).

Authors working within the mainstream traditions have reported on at least weakening links between financial development and economic growth. Rousseau and Wachtel (2011) argue that ‘although the finance-growth relationship is now firmly entrenched in the empirical literature, we show that it is not as strong in more recent data as it was in the original studies with data for the period from 1960 to 1989. We consider several explanations. First, we find that the incidence of financial crises is related to the

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<sup>6</sup> See Passarella Veronese (2013) for details on the manner in which the financial system has increased in scale over the past three decades in a wide range of industrialised countries.



dampening of the effect of financial deepening on growth. Excessive financial deepening or too rapid growth of credit may have led to both inflation and weakened banking systems which in turn gave rise to growth-inhibiting financial crises. Excessive financial deepening may also be a result of widespread financial liberalizations in the late 1980s and early 1990s in countries that lacked the legal or regulatory infrastructure to exploit financial development successfully. However, we find little indication that liberalizations played an important direct in reducing the effect of finance. Similarly, there is little evidence that the growth of equity markets in recent years has substituted for debt financing and led to a reduced role of financial deepening on growth' (p.276).

Another study documents 'that the size of the financial sector has increased dramatically in both the developed and developing world in combination with a high volatility of the financial sector relative to the economy as a whole. In line with previous research we find that in the long run financial intermediation increases growth and reduces growth volatility. *Both effects have, however, become weaker over time.* The size of the financial sector while controlling for the level of intermediation in an economy does not seem to affect long-run growth or volatility. Our analysis also shows that neither the size of the financial sector nor intermediation is associated with higher growth in the medium run. This result obtains despite a positive growth effect of the size of the financial sector and the non-intermediation component in the subsample of high-income countries. Critically, financial system size, especially non-intermediation services, has a positive relationship with volatility in high-income countries over the medium-term.' (Beck, Degryse, Kneer, 2013, p. 13, emphasis added)

A study from the Bank of International Settlements studied 'the complex real effects of financial development and come to two important conclusions. First, financial sector size has an inverted U-shaped effect on productivity growth. That is, there comes a point where further enlargement of the financial system can reduce real growth. Second, financial sector growth is found to be a drag on productivity growth. Our interpretation is that because the financial sector competes with the rest of the economy for scarce resources, financial booms are not, in general, growth enhancing. This evidence, together with recent



experience during the financial crisis, leads us to conclude that there is a pressing need to reassess the relationship of finance and real growth in modern economic systems. More finance is definitely not always better.’ (Cecchetti and Kharroubi, 2012, p.14)

Barajas et alia, (2013), state that there is ‘Ample empirical evidence [which] has shown a positive, albeit non-linear, relationship between financial system depth, economic growth, and macroeconomic volatility. At the same time, rapid expansion in credit has been associated with higher bank fragility and the likelihood of a systemic banking crisis’ (p.3) They report that Barajas et alia (2012) find evidence for the effect of financial development being strongest among middle-income countries, whilst the work of Rioja and Valev (2004a, 2004b) and Aghion et al. (2005) find a declining effect of finance on growth as countries grow richer. They also present ‘evidence consistent with the existence of an upper threshold to financial deepening, beyond which it becomes “too hot”, as the risk of excessive financial instability outweighs the benefits. While our analysis does not pin down the exact location of the frontier—the Goldilocks level—it suggests that sufficient warning bells should sound when the gap in private credit relative to the benchmark is around 50 percent’ (Barajas, et alia, 2013. p.17).

‘We find strong support of a beneficial role of financial depth (proxied by the level of private credit extended by banks and other institutions as a share of GDP) in dampening the volatility of output, consumption, and investment across countries, but only up to a certain point. At very high levels (over 100 percent of GDP), well above those observed in most developing countries, we find that financial depth magnifies consumption and investment volatility.’ (Dabla-Norris and Srivisal 2013, pp.4/5). This relates to the shock absorbing capacity of the financial sector rather than the manner in which the financial sector can be a source of instability.

From this discussion we draw the following conclusions. A positive relationship between of the financial sector and economic growth has generally been found though issues of causation have not been resolved. The positive relationship has weakened and indeed may have been reversed in recent years. The empirical work has focused on measures of the

financial sector such as bank deposits, size of the stock market, and has not in general reflected the expansion of the financial sector in recent decades in terms of derivatives, securitisation and volume of trade in assets and liabilities.

## **7. Financial liberalisation and de-regulation: some empirics**

Bumann, Hermes, and Lensink (2012) summarise the position with regard to the ‘hotly debated’ relationship between financial liberalisation and economic growth’ in the following terms: ‘whereas some have claimed that liberalisation of financial markets contributes to the efficiency with which these markets can transform saving into investment, which ultimately fosters economic growth, others have pointed out that these liberalisations have contributed to various financial and economic crises in the past. ... The evidence that emerges from these studies [of the relationship] remains inconclusive.

They undertake a meta-analysis based on 60 empirical studies. Their ‘meta-regression analysis provided the following main results. First, the unconditional mean of the t-statistic of the financial liberalisation variable equals 1.42, which is highly significant. Using a chi-squared test we also have to reject the null hypothesis that the average t-statistic equals 1.96. .... Hence, we conclude that although our results indicate that, on average, there is a positive effect of financial liberalisation on growth, the significance of this effect is only weak. Second, for most of the variables that may help explaining the heterogeneity of results about the relationship between financial liberalisation and economic growth we do not find any significant results. There are two exceptions. Our analysis suggests that data from the 1970s generate more negative financial liberalisation coefficients which suggests that financial liberalisation policies carried out during the 1970s seem to have a stronger negative relationship with growth. Moreover, our results show that studies that take into account a measure of the level of development of the financial system report lower t-statistics for the relationship between liberalisation and growth’ (pp.43-5).

Arestis and Stein (2005) draw attention to the linkages between financial liberalisation and subsequent financial crisis, fuelled by rapid credit expansion following de-regulation and often asset price bubbles. They report on the work of Demirguc-Kunt and Detragiache

(1999) who surveyed a total of 53 countries, covering the period between 1980 and 1995 whose experiences resulted in financial and banking crises. 'In fact, Demirguc-Kunt & Detragiache (1999) find that 78% of all banking crises were linked to periods of financial liberalisation. The results of those crises were catastrophic. Interest rates exceeded 20%, a number of 'bad' debts and waves of bank failures and other bankruptcies ensued, associated with extreme asset volatility, and with all the financial systems involved reaching a near collapse stage. As a consequence the real sectors of the affected economies entered severe and prolonged recessions. On the whole, financial liberalisation in those and other countries had a destabilising effect on the economy and were abandoned. Since the mid-1990s there have been major crises in Argentina, Ecuador, Thailand, Russia, Turkey, Uruguay, Columbia, Indonesia, Kenya and South Korea. Much of this instability has been associated with rapid financial liberalisation, without exception. Interestingly enough, and in contrast to the earlier period referred to above in the case of South Korea, the crisis of November, 1997 in this country, followed the deregulation of interest rates, the opening of the capital market, foreign exchange liberalisation, the granting of new banking licenses and the dismantling of government monitoring mechanisms that were part of the policy loan system.' (Arestis and Stein, 2005, p.384)

Arestis et al. (2003) provide an assessment of the effects of several types of financial policies on the average productivity of capital in fourteen countries, including both developed and developing countries. Their findings suggest that the effects of these policies vary considerably across countries, probably reflecting institutional differences. These results are very much within the spirit of Stiglitz's (1998) proposition that 'there are a host of regulations, including restrictions on interest rates or lending to certain sectors (such as speculative real estate), that may enhance the stability of the financial system and thereby increase the efficiency of the economy. Although there may be a trade-off between short-run efficiency and this stability, the costs of instability are so great that long run gains to the economy more than offset any short term losses' (p. 33).

A more general conclusion on financial liberalisation and its effects is drawn by Ghosh (2005). She argues that 'it is evident from this discussion that complete financial

liberalization—in the sense of implementing *all* of the various internal and external measures described here, is neither necessary nor desirable. In fact, such extreme measures have not been implemented by the more successful developing country industrializers. In fact, the examples of those countries that have successfully industrialized—from the nineteenth century onwards, and continuing to date—is instructive, because there are two features which are common to all of them: some degree (usually substantial) of directed credit; and some controls on cross-border capital flows.

‘So, there is a strong case for developing countries to ensure that their own financial systems are adequately regulated with respect to their own specific requirements, which may vary substantially, depending upon the size and nature of their economies, the extent of external integration, the relative importance of the banking system vis-à-vis the capital market, and so on’ ([p. 16]).

## 8. Concluding remarks

There has been a widely held view that financial development and economic growth have been positively related. The debate concerned the causal relationships involved. The empirical work supported that general view, though with many caveats in terms of the empirical evidence. The recent evidence though suggests that any relationship has weakened and indeed may have been reversed. This may be ascribed to the ways in which the financial sector has evolved. There appears to be emerging evidence that the positive link between financial development and economic growth which previously prevailed has been much diminished if not reversed. There are many features of the changes in the financial system in the past three decades which have not been conducive to raising savings or investment and which have led to a more unstable system.

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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?

## **THE PARTNERS IN THE CONSORTIUM ARE:**

Participant Number	Participant organisation name	Country
1 (Coordinator)	University of Leeds	UK
2	University of Siena	Italy
3	School of Oriental and African Studies	UK
4	Fondation Nationale des Sciences Politiques	France
5	Pour la Solidarite, Brussels	Belgium
6	Poznan University of Economics	Poland
7	Tallin University of Technology	Estonia
8	Berlin School of Economics and Law	Germany
9	Centre for Social Studies, University of Coimbra	Portugal
10	University of Pannonia, Veszprem	Hungary
11	National and Kapodistrian University of Athens	Greece
12	Middle East Technical University, Ankara	Turkey
13	Lund University	Sweden
14	University of Witwatersrand	South Africa
15	University of the Basque Country, Bilbao	Spain

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