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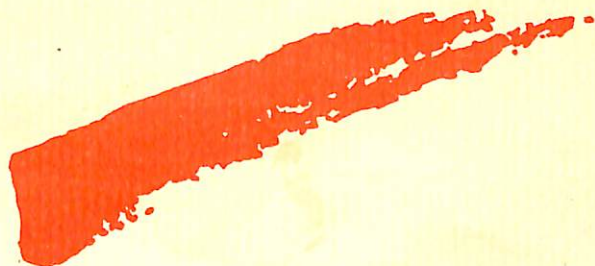
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*The Efficiency of the Financial
System*

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**The Efficiency of the Financial System
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I. Sistema Financeiro. I. Título. II. Série

The efficiency of the financial system

Introduction

Financial markets are usually deemed efficient if they have "the capacity to allocate scarce savings to investors with the socially most productive use for them, usually measured by the (social) rate of return on investment" (Akyüz, 1992: 11). In turn, for at least the last two decades, mainstream macro-economists have argued that financial liberalisation is *the* road to higher levels of domestic savings/investment and more efficient allocation of capital. Efficiency is thus clearly associated with a more "liberalised", deregulated financial market.

Elsewhere, we critically assessed the view that financial liberalisation could *per se* lead to higher levels of saving and investment, even if it may stimulate the process of "financial deepening" (Studart, 1994). In this paper, we argue that one of the problems of conventional analysis lies on the fact that the concept of *efficiency* used by mainstream financial economics is excessively restricted to the microeconomic aspects of intermediation, assuming that an efficient microeconomic position will inevitably result in efficient performance of financial systems in the macroeconomic scenario. Further, this article builds on a critical assessment of the concept of efficiency usually implicit in most mainstream analyses to propose an alternative, based on Keynes's and Post-Keynesians' views on investment finance and funding.

The paper is organised as follows. In the next section, we critically assess the established view on (allocative) efficiency. In section 3, we present an alternative approach to the investment finance, which builds on our interpretation of Keynes's views on finance and funding and his liquidity preference theory of the interest rate. We build upon the findings of section 4 to propose an alternative concept of efficiency of the financial market in the context of a monetary theory of production. Section 5 summarises the findings and concludes this paper.

2. The Conventional Wisdom

The established view on efficiency of financial system has two pillars: the loanable funds theory and the efficient market hypothesis. The former is in turn based on what elsewhere we named "the prior-saving argument" (see Studart, 1993; 1994), that is, the hypothesis that saving and investment are independently determined in the market for capital, where the real interest rate is the adjustment variable. One important corollary of such a view is that a real rate of interest which is below the equilibrium one would result either in a shortage of loanable funds to investment, or "forced savings".

The second pillar of contemporary finance theory is the competitive capital market paradigm (see Lewis, 1992). From the perspective of such a paradigm, a *single* competitive capital market allocates saving/investment optimally, independently of the time structure of the goods it financing; hence inefficiency attaches to anything outside that

paradigm, including (and especially), for instance, segmented markets.

If we take such a view to its logical limits, in perfectly competitive walrasian economy, there is no role for financial institutions: having full information of the best investment, any saver would be able to allocate their saved resources according to its intertemporal preference and in the most productive (and hence profitable) way. The role of institutional analysis is thus to point to the "imperfections" of real-life financial structures and, perhaps, to the ways of re-establishing the sovereignty of the market forces.

From such a perspective, as mentioned above, the question of financing long-lived assets in a market economy also becomes secondary: perfectly competitive capital market will supply the economy with all its needs of financing, be it short or long term; the time structure of the rate of interest will accommodate the intertemporal preferences and the risk aversion of savers. The only way the analysis becomes relevant is when the strong assumptions behind the perfect-market paradigm are criticised. That is, the only way out from the straight-jacket of the "sound microfoundations" of new-walrasian economics is to point to market failures which inhibit the achievement of the equilibrium results of such economics.²

It is not surprising, then, that the increasingly popular new keynesian models have focused on heroic assumptions about the availability and distribution of information between borrowers, lenders and financial institutions. The relaxation of the perfect information hypothesis permitted these models

² This has been the core of the so called New-Keynesian economics. For an extensive survey of such a literature, see Blanchard and Fisher (1989).

to explain the role for financial intermediaries in a competitive economy: the lack of costless information gives financial intermediaries the role of assessing the credit-worthiness of borrowers.³ It is this "artifice" which allows such models to use the walrasian framework, and yet have anything to say about real-life financial structures.

For instance, a common theme in this new line of thought in financial economics is, in a nutshell, that "informational asymmetries may introduce inefficiencies in financial markets which may have *quantitatively* significant real effects" (Gertler, 1988: 560; my emphasis). Furthermore, the growing literature on information and incentives information also points to two problems in financial intermediation which can jeopardise the allocative role played by intermediation: adverse selection, where trading parties have asymmetric information prior to contracting, and moral hazard, where the asymmetries arise after contracting.⁴

3 Credit-worthiness here is defined, accordingly, as the capacity to repay which in the long run is associated with the return of the borrower's investment project. A recent application of this view that financial institutions are "social accountants and screening devices for the allocation of credit" is found in Stiglitz (1988).

4 Asymmetric information occurs when lenders have trouble determining whether a borrower is a good risk (that is, good investment projects with low default risk) or a bad risk (bad investment projects with high default risk). Because of this lack of information, lenders will desire to pay for a security that reflects the average quality of firms issuing the securities - a price which is higher than the market value for high quality firms, and too high for the low quality ones - a classic case of 'the lemons problem' proposed by Akerlof (1970). Hence, only low quality firms will be willing to sell their securities. Stiglitz and Weiss (1981) also demonstrated, using a loanable funds framework, adverse selection would generate credit

The two cases just point to the possibility that, due to asymmetric information, the financial system may not play its role as broker in the saving-investment process efficiently. In other words, in these cases loanable funds to investment will be lower than potential and allocation of resources will be distorted. This literature presents an embarrassing challenge to the view that financial markets are efficient allocators of capital. But, in reality, it does not seem to advance much from the neo-classical perspective: the role of the financial system is still to be an intermediary between saving and investment in a world where information is "still" imperfectly distributed;⁵ and what is at stake is how well this role is performed.

This type of argument leads to the view that, were it not for the problems generated by imperfect information distribution or other market failures, then that role would be fully restored and allocative efficiency of capital would prevail. Even there is room for the analysis of "defective" institutional framework (i.e. one which are far from the stylised single competitive capital markets), the stimulus for saving, especially by maintaining high interest rates, is always prescribed and *the* mean to increase saving and investment.⁶

rationing because low quality firms with riskier projects will be the ones willing to pay the highest interest rates. If lenders cannot identify riskiest projects, then the supply of loanable funds will shrink when interest rates increase, exactly the opposite result from that theoretically expected. The danger of moral hazard may prevent lenders from extending credit, if when the interest rate makes it very attractive to do so. In other words, lending would be at sub-optimal levels.

5 In particular banks are seen as mere "social accountants and screening devices for the allocation of credit" (Stiglitz, 1988) or "delegated monitors of borrowers on behalf of the depositors" (Diamond, 1984).

6 See e.g. Gersovitz, 1988-89: 382; my emphasis.

To sum up, these recent developments explore deviations from the perfect markets paradigm as regards the optimal allocation of the *assets* of financial intermediaries. As far as the theory is concerned, the *liabilities* side is an exogenous variable, determined by the preferences of consumers/savers. The identification of finance and saving is still sovereign, and here lies the main problem.

* * *

When it comes to applying the conventional view on the financial sphere of market economies, the PS argument becomes the “financial liberalisation” model. This states that financial markets in developing countries are underdeveloped due to the historical repression of interest rates by the government. Because of the lack of incentive for savings, savers prefer to consume and/or buy short-term assets; further, because of financial repression, government cannot have access to bonds markets. This, in turn, leaves no option for the government but to recourse to inflationary financing. Finally, inflation reduces even further the real interest rate, closing the vicious circle caused by financial repression.⁷

There is no empirical evidence of a strong relationship between the rate of interest and the supply of savings (see World Bank, 1989 and Frenkel and Fanelli, 1993, p.7). Further, there is significant evidence that the process of financial deepening per se does not imply higher levels of investment (Cf. Fry, 1989; World Bank, 1989; AKkyüz, 1992).

⁷ For a critical assessment of such a view on finance and economic development, see Studart (1993).

References

- Akerlof, G. (1970) ‘The market for “lemons”: qualitative uncertainty and the market mechanism’, The Quarterly Journal of Economics 84,3: 488—500.
- Akyüz, Y. (1992) ‘On financial deepening and efficiency’, UNCTAD Discussion Paper, No. 43, March.
- Amsden, A.H. and Euh, Y. (1990) ‘Republic of South Korea’s financial reform: what are the lessons, UNCTAD Staff papers 30.
- Andersen, T.B. (1983—84) ‘Some implications of the efficient capital markets hypothesis’, Journal of Post Keynesian Economics 6,2: 281—294.
- Bain, A.D. (1981) Economics of the Financial System, Oxford: Martin Robertson.
- Blanchard, J. O. and S. Fisher (1989) Lectures on Macroeconomics. Cambridge Mas.: The MIT Press.
- Cameron, R. (ed.), O. Crisp, H.T. Patrick, and R. Tilly (1967) Banking in the Early Stages of Industrialization: a Study in Comparative Economic History. New York: Oxford University Press, 1972.
- Carvalho, F.J.C.(1992) Mr. Keynes and the Post Keynesians: Principles of Macroeconomics for a Monetary Production Economy. Aldershot: Edward Elgar.
- Chick, V. (1992) Money, Method and Keynes. London: Macmillan.
- (1983) Macroeconomics after Keynes, Oxford: Philip Allan.

- (1986) 'The evolution of the banking system and the theory of saving, investment and interest'. Economie et Sociétés (Cahiers de l'ISMEA Serie Monnaie et Production, 3). Reprinted in Money, Method and Keynes: 196—206.
- Davidson, P. (1978) Money and the Real World, Basingstoke, Hampshire: Macmillan.
- (1986) 'Finance, funding, saving and investment', Journal of Post Keynesian Economics 9,1: 101—110.
- Diamond, D.W. (1984) 'Financial intermediation and delegated monitoring', Review of Economic Studies, 51,3: 393-414.
- Fanelli, J. M. and Frenkel, R. (1993) 'On gradualism, shock treatment and sequencing'. In International Monetary and Financial Issues for the 1990s, New York: United Nations.
- Frenkel, R. and Fanelli, J.M. (1993) "Macropolicies for the transition from stabilization to growth", Mimeo, Buenos Aires: CEDES.
- Fry, M. (1989) Money, Interest, and Banking in Economic Development, Baltimore and London: The Johns Hopkins University Press.
- Gerschenkron, A. (1962) Economic Backwardness in Historical Perspective: a Book of Essays. Cambridge, Mass.: Belknap Press of Harvard University Press.
- Gersovitz, M. (1988-89) 'Saving and development', in Chenery, H.B. and T.N. Srivasan (eds), Handbook of Development Economics, Amsterdam: North-Holland.

cash in his pocket or with a cheque drawn on a bank, which he hands in on the understanding that he is entitled in return to a claim to cash (i.e. a deposit) which he can either exercise or transfer to someone"; it is active if the bank creates a claim against itself in favour of a borrower, in return for his promise of reimbursement (Keynes, 1930: 20-1).

If passive deposit-creating dominates in stage 1, active deposit-creation is the norm in stage 2. In the active deposit creation, if cash reserves are depleted below a certain minimum "margin of safety" (determined by banks' expectations and the institutional structure), banks can borrow surplus reserves from each other, sell other assets, or even borrow directly from the money market against certificates of deposits.

The existence of stage-2 credit-creating banks provides the monetary production economy with a flexibility and capacity for accumulation inconceivable in a barter economy.⁹ It also increases the complexity of the process of investment finance: the funds available for investment represent only a segment of the pool of funds created by the banking system to finance several activities - from the production of consumption goods to stock exchanges (Keynes, 1939: 283). Savings become only one segment of such a pool of funds, and not its only source.

Therefore, it is important to emphasise that, first, in Keynes's theory, the aggregate supply of finance is mainly determined by the banks' willingness to actively create deposits and credit, and *not* by savers' preferences; second, that the interest rate is neither determined by the forces of productivity and thrift, nor is it the variable that guides the

⁹ On this see also Schumpeter (1934).

allocation of capital. Rather, the rate of interest is a monetary phenomenon, conjointly determined by monetary policy, banks' credit strategies and the liquidity preference of wealth-owners.

A mal-functioning banking system represents the failure of an important part of the credit system - and therefore the reduction of the capacity of the entrepreneur economy to advance purchasing power to investors willing to grow. Ultimately, this may mean the failure of the system of payments on an economy which, being decentralised, relies on such a system in order to produce, distribute, reproduce and grow. In this sense, the historical reason for the development of central banks and of regulatory instruments was not to preserve banks as "delegated monitors" or "screening devices" for savers, but to preserve the system from possible instabilities and ruptures (see Goodhart, 1975: chapter VIII), which would directly affect the functioning and growth of the monetary economy.

To sum up, it is bank credit, not saving, which plays the crucial role in the financing of investment. This would appear to leave no role for saving, but such is far from being the case. The key to understanding such a "hidden facet" of Keynes economics has to do with the risks (in Knightian sense) of financing assets with long-term maturity in inherently uncertain market economies - where the demand for liquidity is always high for a significant part of wealth-holders. This is our next topic.

3.2. Revisiting Keynes's dilemma: savings and the financial market

The importance of the allocation of individual savings, and therefore of financial intermediation, to support growth emerges, in Post-Keynesian literature when *funding* - that is, the process of transformation of short-term into long-term liabilities - is discussed.

As Keynes taught us, from the microeconomic perspective, entrepreneurs and bankers desire to fund their long-term commitments on a stable basis because of the uncertainty about the prospective conditions of credit and levels of interest rates. Thus, the reason for funding can be interpreted as a response to a menacing increase in both borrower's and lender's risks (Keynes, 1936: 144). Hence, investment finance in a world of uncertainty is characteristically a twofold process of finance and funding.¹⁰

Being the *locus* where funding takes place, financial markets have an important role in supporting growth. From a microeconomic perspective, they may increase the predisposition of firms and banks to engage in the financing of long-lived assets. Another interrelated microeconomic function is the provision of information for firms issuing securities, underwriters and demanders of securities. This

¹⁰ "The entrepreneur when he decides to invest has to be satisfied on two points: firstly, that he can obtain sufficient short-term finance during the period of producing the investment; and secondly, that he can eventually fund his short-term obligations by a long term issue on satisfactory conditions. Occasionally he may be in a position to use his own resources or to make his long-term issue at once; but this makes no difference to the amount of 'finance' which has to be found by the market as a whole, but only to the channel through which it reaches the entrepreneur and to the probability that some part of it may be found by the release of cash on the part of himself or the rest of the public. Thus it is convenient to regard the twofold process as the characteristic one" (Keynes, 1937: 217).

informational role can be summarised as follows (Cf. Bain, 1981: 61): (1) secondary markets signal the price of new issues of securities; (2) secondary markets make underwriting by specialised financial institutions a less risky business,¹¹ and (3) secondary markets enable investors to evaluate the prospective profitability of newly-issued securities by enhancing the flow of information.

SEC { The existence of the secondary markets (where old securities are sold and bought) relies on continuous trading, which provides the liquidity that makes it less risky for wealth-owners to hold long-term securities. It is this provision of liquidity which makes long-term bonds and securities attractive to savers - who, as Davidson (1986) has rightly put it, are searching for safe liquidity time-machines, and rarely wish to be locked in to holding an asset for a long period of time.

Therefore, in the perspective of chapter 12 of *The General Theory*, financial markets have an important, but yet ambiguous, role in supporting growth. They intermediate between the demanders of securities and those firms wishing to fund their short-term liabilities, and this capacity broadens the system's ability to transform maturities. But one cannot forget the negative side, that is, the instability brought by the

¹¹ The underwriter bears the responsibility for the acquisition of the securities which are not absorbed by the market after the price offered reaches a pre-established minimum. So the institution must be prepared to take up shares if called upon to do so, and therefore it must have access to cash when this occurs. This access can be provided by credit lines with banks, but it may also be necessary to sell some of its assets. Since its assets are likely to be primarily securities, then secondary markets are obviously useful to provide the underwriter with cash when it is required.

speculative nature of these markets. These are the reasons behind Keynes's "mixed feelings" about capital markets:

The spectacle of modern investment markets has sometimes moved me towards the conclusion that to make the purchase of an investment permanent and indissoluble, like marriage, except by reason of death or other grave cause, might be a useful remedy for our contemporary evils. For this would force the investor to direct his mind to the long-term prospects and to those only. But a little consideration of this expedient brings us up against a dilemma, and shows us how the liquidity of investment markets often facilitates, though it sometimes impedes, the course of new investment. For the fact that each individual investor flatters himself that his commitment is "liquid" (though this cannot be true for all investors collectively) calms his nerves and makes him much more willing to run a risk. If individual purchases of investment were rendered illiquid, this might seriously impede new investment, so long as *alternative ways* in which to hold his savings are available to the individual. *This is the dilemma.* (Keynes, 1936: 160; my emphasis).

From a macroeconomic viewpoint, funding and, therefore, financial markets also bear a role which is seldom spelled out. That is, the role of mitigating the increasing financial fragility inherent in a growing monetary economy. As we pointed out elsewhere (Stuart, 1994), this characteristic of the growing market economy emerges from the fact that the expansion of credit is a *sine qua non* condition for growth, and credit is expanded basically through bank-money creation. Because of the structure of banks' liability, either such credit is short term, and the borrowers' risk will be rising; or, if the banks agree to

finance long-term positions, they will be accepting higher liquidity risks. In a way or another, growth will be followed by an increase of what Minsky (e.g. 1982) named systemic financial fragility.

Therefore, one may say that the existence of mechanism to fund investment is a necessary, but yet not sufficient, condition to a financially stable economic growth. This macroeconomic role of savings and financial markets will very much depends upon two interrelated characteristics of these markets: their size and their stability. A thin financial market is unlikely to be able to increase its levels of operation rapidly without significant shifts of asset prices,¹² and a volatile financial market can provoke sudden shifts of the rate of interest and, therefore, be more damaging than supportive of the process of growth.¹³

3.3. Investment finance and funding and the institutional framework

As stressed earlier, what makes the financial markets functional actors to economic growth is its ability to transform short-term assets which are demanded by savers as forms of “liquidity time-machines” into long-term sources of funding.

¹² Zysman (1983: 60) shares a similar viewpoint: “The large secondary market solves particular problems. For example, a large number of buyers and sellers means that any seller is likely to find a buyer and, consequently, that routine price fluctuations are apt to be less than they would be in a small market. Small secondary markets, then, could be thought to expose investors to a risk of market fluctuations...”

¹³ It is worth remembering that not only thin markets highly speculative and volatile, but either is speculation a short-term phenomenon which tends to disappear in the long run. Much to the contrary, as noted

This maturity transformation assumes different *possible* forms according to the institutional background behind the financial structure. For instance, as Davidson (1986) illustrates, in the segmented financial markets which existed in the US before the deregulation of the 1980s, the commercial banks provided sight and short-term deposits against short-term commercial and industrial loans; investment banks were specialised in converting short-term borrowing into long-term borrowing through underwriting operations; and institutional investors (e.g. insurance companies and pension funds) would invest savings on behalf of the general public.¹⁴

Even though the finance-funding process pictured by Davidson is somehow ideal, it is possible to expand investment through short-term credit, without causing increases in financial fragility if there are no significant technical indivisibilities and the maturity of investment is very short. This is problem the case of some agricultural economies or countries in the early stages industrial development. However, once the stage of industrialisation has reached the point where investments involve millions of dollar, and technical indivisibilities are one main barrier to entry, then the question of funding becomes essential; and so does the development of institutions specialised in transforming liquid assets into long-term funding.

The problem is that institutional environments are, by nature, constantly changing and, notwithstanding deterministic

earlier, the very existence of the secondary markets (where old securities are sold and bought) relies on divergent asset expectations and speculative buys and sales.

¹⁴ In fact, Davidson's example has become a stylized form of describing the process of finance-funding in Post-Keynesian literature. Nothing wrong with that, as long as one does not lose sight of the institutional background of Davidson's story.

faith, nothing can guarantee that development will lead to a unique financial structure. For instance, one of the characteristic developments in the early years of industrialisation in Britain, where the Industrial Revolution began, was the rapid evolution of the banking system.¹⁵ The market for long-term securities came later and consolidated at a slower pace than the banking system.¹⁶ But, until the mechanisms to fund investment were poorly developed, the role of British banking was crucial in providing an increased supply of means of payment to meet the rapidly increasing demand for money associated with industrialisation, higher incomes, and the monetisation of the entire economy (see Pollard, 1964: 41).

The development of capital markets has not been so uniform in many other nations - a phenomenon confirmed by Zysman's (1983) classification of financial systems as capital market-based and credit-based systems. The capital market-based system is one where securities (stocks and bonds) are the main source of long-term funding. There is a wide range of capital and money-market instruments, a large number of specialised financial institutions offer competing services, and prices are determined by the interplay of supply and demand. In credit-based financial systems, on the contrary, the capital market is weak and firms depend heavily on credit for raising finance beyond retained earnings.

¹⁵ See Gerschenkron (1962), Cameron et al (1967) and Kennedy (1987).
¹⁶ For instance, whereas the London stock market originates between 1689 and 1720, only by the early decades of the nineteenth century it had acquired a key position in the British financial system, rivalling in importance that of the Bank of England, until the mid nineteenth century it dealt chiefly in government securities. The insurance companies, conversely, did invest a portion of their assets in industrial projects. On this, see Cameron (1967).

In a nutshell, one of the important differences between the two types of financial structure is the existence or not of funding mechanisms. This difference has, in turn, consequences as regards the ways which investment can be supported by the existing financial institutions. As mentioned above, from the theoretical perspective adopted thus far, the lack of organised financial markets can have two destabilising consequences for development: first, finance will tend to be very short-term and credit rationing may occur in times of growth; again, this has to do more with the rapid increase of borrower's and lender's risks than anything else. If financial markets remain underdeveloped and funding is not available, banks' liquidity preference will be high and they may refrain from expanding their lending activity when the demand is rising rapidly.¹⁷

Second, if finance is forthcoming to sustain growth, the financial position of both firms and banks will become more fragile (how rapidly depends on the rate of growth). Further, even if they do lend more in times of growth, banks will almost certainly prefer short-term loans (say towards the financing of consumption, working capital and/or speculation) to longer-term, and hence, riskier, investment projects.¹⁸ If banks are still prepared to finance expansion

¹⁷ This could be a theoretical explanation for Zysman's empirical evidence that "... where capital markets emerged to finance industrial development, bank lending has been traditionally limited to short-term purposes. Where capital markets were neither adequate nor reliable sources of development funds, banks or specialized institutions filled the gap with loans" (Zysman, 1983: 61).

¹⁸ As Zysman points out, this is directly linked to the risks of long-term lending: "Any loan is a gamble on the future solvency of the client, but a long-term loan involves a new kind of risk. Obviously, a long-term loan

despite the lack of appropriate mechanisms to fund investment, the indebtedness of the corporate sector has to increase. Growth will only be sustained if a section of investing firms borrows short, hoping to repay by borrowing until their investment matures and begins to produce additional cash inflows (using Minsky's terminology, more and more investors and financiers will adopt Ponzi strategies).

Because the weight of speculative finance tends to increase with the acceleration of investment, credit-based systems are thus extremely vulnerable to changes in credit conditions (especially in shifts in money interest rates) in times of growth. If the financing of long-lived assets is supplied mainly through short-term renewable loans, a change in the rate of interest will represent a significant rise in firms' financial expenditures; if firms try to adjust by cutting other expenditures simultaneously, this may set in motion a vicious circle of financial reactions which could reduce effective demand even further.

on the business of a client cannot in reality be secured by any physical assets. Moreover, a bank gets the bulk of the money it uses from funds deposited for a short term at the going interest rate. If it lends a firm money for five years, during the period, the depositors may withdraw their funds at which point the bank's reserves drop and it must reduce its loans: in an extreme case it might not be able to pay claims presented to it. Another, potentially more serious, problem may occur should interest rates change in unexpected ways. If the short-term rates go down and the bank has lent long, its margin of profits increases, but if the rates go up, its profit margins are cut or it loses money" (1983: 63).

4. The Efficiency of Financial Markets

How should we define "efficiency", given the paradigm so far adopted? Assuming that economic growth is an necessary, but not sufficient, condition to achieve superior welfare, efficiency is hereafter defined as follows: a financial system is efficient to development when it expands the use of existing resources of a economy with the minimum possible increase in financial fragility and other imbalances that may halt the process of growth for purely financial reasons.¹⁹ Efficiency has two distinctive dimensions: one concerns the stability of the financial system (both as a system of payments and intermediary of loanable funds) and another is related to the allocation of real resources. This first is the macroeconomic dimension, the second, the microeconomic.

As regards the macroeconomic dimension, the efficiency of the financial structure should be judged by how well it performs the functions of financing and funding; in other words, how it supports financially stable growth. In the microeconomic dimension, efficiency relates to the ability to provide finance and funding for the investors at the lowest possible cost. It is important to understand that the two types of efficiency are not contingent on one another: a financial structure may have developed finance/funding mechanisms, but be, at the same time, maintain high costs of intermediation between ultimate lender and ultimate

¹⁹ The concept should not be confounded with Tobin's (1984) concept of *functional efficiency*, which refers to the cost efficiency in "producing" finance in the process of intermediation between ultimate lenders and borrowers. Tobin's view is only similar to our concept of "microeconomic" functionality, but ignores the macroeconomic perspective, which is central to our view.

borrower. It can also be technologically sophisticated and cost minimizer, and highly inefficient from the macroeconomic perspective.²⁰

Still concerning the macroeconomic functions described above, it is important to stress that, from the perspective adopted here, there is no reason why appropriate mechanisms to finance and fund accumulation will spontaneously evolve in the process of economic development, especially when such development is rapid (see Studart, 1994: chapter 4). Indeed, on the one hand, financial institutions (and especially banks) will, because of the liability structure, prefer to remain in the shorter end of financing if that is possible.

In a fast-growing economy, with constant pressure on finance, the financial institutions can profitably grow simply by providing short-run finance to credit-thirsty enterprises. Neither private banks nor other financial institutions will have competitive stimulus to finance long-term positions. In this case, in order to grow, firms will have recourse to renewable short-term credit, self-funding or foreign indebtedness in order to implement their investment projects.

A macroeconomically efficient financial market is one where secondary markets act as promoters of funding operations. Here "Keynes's dilemma" is the basis to understand the strengths and limitations of such markets to do so. Developed financial markets may play an important role in providing mechanisms to fund investment, and the development of stable financial markets may be desirable.

²⁰ This seems to apply to the Brazilian case nowadays: a technologically sophisticated banking system and financial markets, but with very underdeveloped *private* mechanisms to finance accumulation. On this, see for instance, *Revista Exame* of 22 June 1994.

But this development may require fine monitoring and a long-term strategy - and not simply short-term incentives to securities buyers. Thin financial markets - which are the rule in LDCs (Goldsmith, 1969; McKinnon, 1973; World Bank, 1989) - tend to be highly speculative and manipulated by few big insiders, which create a comprehensive mistrust by most small savers and even some potential institutional investors, such as pension funds. Therefore, stability should be priority, especially in "emerging markets" and the development of capital markets should be carried out with careful regulation by the authorities. This regulation can be loosened according to the development of such markets, but it is unlikely that complete deregulation will ever be compatible with financially stable growth.

Finally, it is important to remember that the existence of developed financial markets is neither a sufficient, nor a necessary condition for efficient transformation of assets (**funding**). Indeed, as we discussed earlier, in countries where financial markets did not develop sufficiently to support financially stable growth, one finds "compensating" arrangements. That is, the emphasis that mainstream theory has placed on the need for a "market-friendly, capital-market-oriented" financial development as means of achieving a more "efficient" financial structure is unwarranted by empirical evidence.²¹ If one abandons the belief that the natural outcome of a liberalised economy is an optimal allocation of resources through a single capital market, the

²¹ Take for instance the examples of Germany, where the role of the strong commitment on the part of the German universal banks in supporting associated firms is recognised as one of the basis of the rapid and relatively stable development of that country; or the case of Japan, where the development of financial/corporate conglomerate has been the financial

question of creation of appropriate institutions to co-ordinate and to promote an expansion and a socially fair distribution of income emerges almost naturally. In other words, the State, if not a panacea to solve the many problems of a decentralised economy, may play a crucial role in adapting the shape and the functioning of economic institutions in order to achieve a "certain", politically established, efficient allocation of resources and wealth.²²

strong arm of the "Japanese miracle": or, just to mention one of the Asian dragons (paradoxically which has been used as example of "market-friendly development"), take the case of South Korea where the close government intervention such as the creation of development banks and the use of regulated selective credit mechanism has served to boost industrial investment which resulted the one of the most astonishing economic performance of the History of industrial economies. For detailed description of the functioning of the financial systems in these countries see Mayer, 1988 (Germany); Sommel, 1992 (Japan); and Amsden and Euh, 1990 (South Korea).

22 The "hands-off" liberal proposal, which proposes a shrinkage of government intervention is obviously not political neutral. As Fanelli and Frenkel remind us: "The liberalization literature has taught us much about the possible distortive consequences of protectionist and other interventionist policies, but there is nothing comparable in terms of research effort devoted to analysing what has happened in concrete situations of deregulation. For example, is the privatization process prone to domination by interest groups as was the case with the ISI [import-substitution-industrialization]-like policies? Would not such a process open big opportunities for rent seeking and directly unproductive profit-seeking activities? (Fanelli and Frenkel, 1993: 82)".

5. Conclusion

In conventional theory, the role of the financial system is normally presented twofold: to equip the economy with payment facilities and to "provide savers and investors with financial instruments which have characteristics suited to their diverse needs". The neo-classical matrix allows the analyst to distinguish between money and "real" phenomena, characterising the deposit-taking institutions as semi-technical money-creators. Thus, the role of intermediation between savers and investors receives the focus of most analyses of financial systems.

As a result, the concept of efficient financial system is normally associated with the capacity of system to provide the best distribution of information to guide consumers in the intertemporal allocation of income and wealth. As regards the institutional framework, it follows from such an approach that the most efficient financial structure is the fully competitive financial structure, which is devoid of informational asymmetries. When it comes to economic policy, liberalising proposals are the logical outcome of such a view, and the question of institutional development is left to a secondary plan.

From Post Keynesian perspective, where finance and investment precede saving and the allocation of liquid financial wealth takes place in a inherently uncertain environment, the role of the financial system is defined differently. Finance depends on banks' willingness to advance purchasing power to entrepreneurs, willingness which is crucial to allow the monetary production economy to grow. Funding depends on the capacity of existing financial markets to intermediate between savers' desire to

store financial assets as “liquidity time-machines”, and investors’ demand for a stable long-term financing of their long-lived assets.

From Post Keynesian perspective a financial system is efficient to the process of growth if it has credit-creating power, funding mechanisms and maintain robustness throughout the process of growth. Even though Keynes’s view was based on a specific institutional framework (i.e. capital-market based financial structure), the questions raised by the distinction between **finance** and **funding** seemingly applies to the analysis of any financial structure of a market economy. Indeed, the institutional evolution which led to capital-market financial structure is neither norm, neither is a requirement for an efficient financial market: in fact History gives us plenty of examples of successful developing economies where the evolution of credit-based financial structure was part of a wider successful development strategy.

In order to establish policies towards a more efficient - in the sense here used -, one has to bear in mind the broad characteristics of each financial structure. Keynes insisted that the “dark side” of capital-market based system is associated with the possible instability of interest rates and proposed governments to intervene when such instability impaired investment and growth. Credit-based financial systems, in turn, cannot support high levels of growth unless other financial arrangements are created. This may be the basis to understand the role of certain structures of German-type universal banks and of development banks, not as anomalies which impair the efficient allocation of capital, but as institutions which may improve such an efficiency.

In themselves, these empirical evidences would be enough to demystify the financial liberalisation hypothesis and to make the analyst search for an alternative view on the role of banks and other financial institutions in market economies. As a consequence, this search must lead to an also alternative view on what “efficiency” is meant when discussing financial systems. Next we will offer one possible alternative view, based on Keynes’s paradigm of the monetary production economy⁸.

3. Investment Finance, Funding and Uncertainty

That the “prior-saving argument” is a pre-Keynesian concept, as Keynes insisted in many parts of his work that investment preceded saving. What is not often remembered is that Keynes perceived such a view as a fallacious foundation to understand the financial sphere of a monetary production economy. In our opinion, Keynes’s alternative view can be interpreted through a sharp distinction between *finance*, *saving* and *funding*.

3.1. Finance

In Keynes’s general theory, banks and entrepreneurs are *the* key agents in the determination of effective demand, and hence, of employment and output; consumers/savers are put in a secondary role of determining the income multiplier.

⁸ For a description of the foundations of Post Keynesian economics, that is, the concept of monetary production economy see Carvalho (1992, chapter 3).

This is because, as will be fully discussed in this section, in an entrepreneur economy, saving does not finance all investment (especially in a growing economy) and finance precedes investment.

The starting point of Keynes's analysis is his rejection of Say's Law through his theory of effective demand. As we have shown elsewhere (Stuart, 1994), electing investment as the *causa causans* in the determination of output and employment demands that finance be independent from previous saving. In turn, the evolution of privately issued money, so well described in the first volume of Keynes's *Treatise on Money* (especially in chapter 1) is critical in understanding the relevance of Keynes's assumption of the independence of finance from saving.

Accordingly, as Chick (1983; 1986) has shown in her theory of the development of the banking system, only in a very early stage of this development do banks depend on previous deposits to create credit. Only in this first stage (Chick's stage 1), are banks' notes restrictively accepted for settling transactions and loans totally backed by previous deposits. Hence, only in this stage do deposits necessarily precede loans and hence saving precedes investment. However, once notes and/or claims on deposits are widely accepted as a means of payment, deposits are made for transactions as well as for saving reasons (Chick's stage 2).

In this second stage, banks manage their balance-sheet positions on the basis of the idle balances maintained by depositors, so that daily accruing assets in the shape of cash and claims are as near as possible equal to their daily accruing liabilities (Keynes, 1930). Bank-money creation becomes either a passive or an active book-entry operation: it is passive if "a member of the public comes along with

Gertler, M. (1988). 'Financial structure and aggregate economic activity: an overview. Journal of Money, Credit, and Banking 20,3: 559—587.

Goldsmith, R. W. (1969) Financial Structure and Development, New Haven: Yale University Press.

Goodhart, C.A.E. (1975) Money, Information and Uncertainty. London: Macmillan, 1989 (revised edition).

Kennedy, W. P. (1987) Industrial Structure, Capital Markets and the Origins of British Economic Decline, Cambridge: Cambridge University Press.

Keynes, J.M. Collected Writings (CWJMK). D.E. Moggridge (ed.), London: Macmillan for the Royal Economic Society, various dates from 1971.

— (1930) The Treatise on Money: The Pure Theory of Money, 2 vols, London: Macmillan, 1930. Republished in CWJMK as vols V and VI.

— (1936) The General Theory of Employment, Interest and Money, London: Macmillan, 1947.

— (1937b) 'The "ex-ante" theory of the rate of interest'. The Economic Journal, December 1937. Reprinted in CWJMK, vol. XIV: 215—23.

— (1939) 'The process of capital formation'. The Economic Journal, September 1939. Reprinted in CWJMK, vol. XIV: 278—85.

— (1979), The General Theory and After: A Supplement, CWJMK, vol. XXIX.

Lewis, M. K. (1992) 'Modern banking in theory and practice', Revue Économique 10, 2: 203—225.

- Mayer, C. (1988) 'New issues in corporate finance', European Economic Review 32: 1167—1189.
- McKinnon, R. I. (1973) Money and Capital in Economic Development, Washington D.C.: Brookings Institution.
- Minsky, H. P. (1982) 'The financial-instability hypothesis: capitalist processes and the behavior of the economy', in C.P. Kindleberger and J.P. Laffargue (eds) Financial Crises, Cambridge: Cambridge University Press.
- Pollard, S. (1964) Fixed Capital in the Industrial Revolution in Britain, The Journal of Economic History, 24(3), September: 299—314.
- Sommel (1992) "Finance for growth: lessons from Japan", UNCTAF Discussion Paper, February.
- Stiglitz J.E. and A. Weiss (1981) 'Credit rationing in markets with imperfect competition', American Economic Review 71,5: 393—410.
- (1988) Banks as social accountants and screening devices for the allocation of credit. National Bureau of Economic Research, Working paper 2710.
- Studart, R. (1993) 'Financial repression and economic development: towards a post-Keynesian alternative', Review of Political Economy, 5,3: 277—298.
- (1994) Investment Finance in Economic Development, forthcoming, London: Routledge.
- Tobin, J. (1984) "On the efficiency of the financial system", American Economic Review. Papers and Proceedings, May.
- World Bank (1984) The World Development Report 1984, New York: Oxford University Press.

- (1989) Financial Systems and Development, World Development Indicators, Annual Report.
- Zysman, J. (1983) Governments, Markets, and Growth: Financial Systems and the Politics of Industrial Growth, Oxford: Martin Robertson.

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