Financial Systems and Capital Markets: an alternative view

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In recent years, there has been a remarkable surge of interest in the structure and performance of financial systems, reflecting the concern of both policymakers and practitioners about how financial systems function and how they can be improved. This interest has been driven by the recognition that financial systems play a crucial role in channeling savings into investment, mobilizing funds for economic development, and promoting economic growth and stability.

The financial system and economic activity

The financial system is a critical component of the economy. It involves the institutions, laws, and regulations that facilitate the creation, distribution, and use of financial resources. Financial systems facilitate the allocation of resources by linking savers and borrowers, providing mechanisms for managing and transferring risks, and enabling the efficient use of financial resources.

The importance of the financial system is highlighted by the fact that financial crises can have significant impacts on economic growth and stability. Financial stability is crucial for the smooth functioning of the economy, and policymakers must be aware of the potential risks and vulnerabilities that can arise from financial imbalances.

The classical dichotomy between the real and financial economies

The classical dichotomy is a tool used in economics to distinguish between the real world and the financial world. The real economy is concerned with the production, distribution, and consumption of goods and services, while the financial economy is concerned with the flow of funds and the allocation of resources.

The dichotomy helps economists to analyze the interactions between the real and financial economies. It suggests that the financial system should be viewed as an auxiliary to the real economy, and that the role of the financial system is to facilitate the real economy rather than to drive it.

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standard models of this type only to the extent that it attributes a stronger role to the financial system in generating growth. However, the recent endogenous finance models are generally supportive of the rapid development of stock markets, unlike those deriving from the more traditional versions of McKinnon-Shaw, which tend to favor slower evolutionary growth for capital markets. Fry (1995).

It is also important to note that the financial liberalization thesis has come under sustained attack, even from within mainstream economics. An influential argument in this respect has been put forth by Sigozzi (1994) claiming that financial markets are prone to market failure due to informational imperfections. An essential function of financial markets is to collect, process, and convey information in order to allocate funds and monitor their use. Yet, information is asymmetrically available and costly to acquire, resulting in externalities and market failures. Hence, government intervention in finance — mild financial repression — can improve capital allocation. Nevertheless, despite its critical view of financial liberalisation, Sigozzi's approach still considers financial development to lead economic growth.

The nature of information availability has a bearing on the recent debate regarding the relationship between the two main forms of financial intermediation namely, banks and stock markets. On the one hand, Levine and Zervos (1995) suggest that banks and stock markets complement each other, and both positively affect growth. This has been disputed both theoretically and empirically. On the other, Allen and Gale (1995) argue that, for a variety of reasons, including information asymmetries, banks have important advantages over stock markets in supporting growth. By providing almost instant liquidity to investors, stock exchanges subvert long-term commitment to enterprise. Banks, on the other hand, can sustain close relations with industry and better cope with asymmetric information, transaction and agency costs.

In sum, despite considerable differences among the various types of financial systems, mainstream theory on finance stresses two related points: first, that financial development causes economic growth, and second, that financial systems tend to perform better under unrestricted market conditions. By discussing the structure of capitalist financial systems from the standpoint of Marxist political economy, section IV of this essay shows finance and capitalist accumulation interact in both directions rather than the former causing the latter. Moreover, financial liberalisation, often extending to the free operation of stock markets, is not necessarily conducive to growth within the confines of the capitalist economy. Alternative policies, stressing the bank-industry nexus and the regulation of the financial system, can be better suited to this task.

III. Capital markets and economic development

The traditional McKinnon-Shaw analysis of the financial system avoided discussing stock markets, despite often acknowledging their importance. An important recent turn and fail adequately to grasp the peculiarities of individual countries, such as the institutional structure of the financial system, and the policy regime. Second, causality cannot be satisfactorily established on the basis of cross-country regressions.

2 Arestis and Demetriades (1997) have pointed out important methodological limitations of Barro-type country regressions. First, cross-country regressions are based on extremely simplistic assumptions
stock markets renounce long-term commitment to the firm. Anglo-Saxon economics, which favour financial systems based on through stock markets, are competitively disadvantaged in this respect relative to Japan and Germany, where the bank-industry nexus predominates. All these arguments apply even more strongly to developing countries, which lack an appropriate regulatory framework ensuring efficient information gathering. Moreover, young listed firms do not have long enough and credible enough records in order to be accurately assessed. These weaknesses lead to a noisy stock market environment with arbitrary pricing and considerable volatility that underlines inefficient investment allocation. Likewise, the interaction between stock and currency markets in the wake of unfavourable economic shocks may exacerbate macro-economic instability and reduce long-term growth. Finally, stock market development might undermine the existing bank-industry nexus that have been proved quite successful in promoting growth. For Singh, financial liberalisation and the rapid development of stock markets are unlikely to produce faster long-term economic growth.

In section V of this essay it is shown that capital markets are necessary and integral parts of the capitalist financial system but also sources of instability. On the one hand, they provide long-term capital on an equity basis, thus allowing for large-scale investment. On the other hand, they also create instability since their very function encourages the anticipation of the future and promotes speculation within a capitalist economy. Instability might even be worse in developing countries that do not possess institutional mechanisms for information processing. Much of the ambiguity in mainstream theory derives from its approach to the rate of interest, which typically assumes that the rate of interest is one of the main instruments in influencing investment and capital accumulation and, in equilibrium, equals the rate of profit. This assumption is vigorously disputed by Marxist political economy, a fact that has significant implications for the analysis of stock markets and financial systems more broadly.

IV. The financial system of a capitalist economy: a Marxist perspective

Credit denotes the belief and expectation that payment will be effected at some later point in time for goods supplied now, or that lent money will be returned. In a capitalist economy, highly sophisticated mechanisms of credit (a credit system) are invariably constructed. Money, particularly in its functions as means of hoarding and means of payment, serves as one of the foundations for the credit system. The principal forms and functions of the capitalist credit system emerge spontaneously in the process of facilitating commodity transactions among capital. They involve the utilisation of idle money capital (that is, money hoards) generated in the turnover of capital. Finance, on the other hand, denotes the several ways of providing either money capital or simply money funds to a person or firm. Credit naturally constitutes a fundamental component of finance. However, finance is broader than credit; it further relates to the mobilisation through the capital market of idle money in the form of joint-stock capital, rather than simply as lending and borrowing. The complex structure of credit system and capital market taken together can be thought of as the financial system of a capitalist economy.
The representative form of the capitalist credit system

Chapter 2

The representative form of the capitalist credit system is provided by the generation of promissory notes, which is the basis for the turnover of the total social capital. As the latter is concentrated in the hands of a small number of people or in a few large institutions, it is possible to accumulate capital through the circulation of the capital system, and the capital system is thus the result of a circulation of capital. The capital system is itself the result of the circulation of capital, and the capital system is thus the result of a circulation of capital.

The capital system is made up of two main components: the capitalist class and the working class. The capitalist class controls the means of production, and the working class produces the goods and services that are sold in the market. The capitalist class benefits from the labor of the working class, and the working class is paid a wage for its labor.

The capitalist system is based on the division of labor, which allows for the specialization of labor and the efficient production of goods and services. The division of labor also allows for the accumulation of capital, as the capitalist class is able to invest in new technologies and production methods, which in turn lead to increased productivity and profitability.

The capitalist system is also characterized by the existence of class conflict, as the capitalist class seeks to maximize profits and accumulate capital, while the working class seeks to improve their living standards and gain more control over their own labor.

The capitalist system is the result of a historical process, and its development has been characterized by both progress and contradictions. The contradictions of the capitalist system, such as the class struggle and the exploitation of the working class, continue to shape the world today.
To support both types of liabilities, a bank must possess certain reserves of cash. The cash reserves of the banks are the minimum amount of money that the bank is required to hold in order to meet the demand for cash. This reserve requirement is set by the central bank and ensures that banks have enough cash to meet the demands of their customers. The bank's reserves are used to meet the demand for cash, but they also serve as a source of liquidity for the bank. When the bank needs to lend money, it can use its reserves to make loans and earn interest on the borrowed funds. This is known as deposit money creation, as the bank creates deposits from the reserves that it holds.

The process of deposit money creation is based on the concept of fractional reserve banking. Under this system, banks are required to hold a certain percentage of their deposits as reserves, while the remainder can be used to make loans. This creates a multiplier effect, as the initial deposit can be multiplied by the amount of reserves that the bank is required to hold in order to create new deposits.

The interest rate is the rate that the bank charges for the loaned funds. If the interest rate is high, banks will be more willing to lend money, which will increase the amount of deposits and the money supply. Conversely, if the interest rate is low, banks will be less willing to lend money, which will decrease the amount of deposits and the money supply.

The money market is the market in which financial assets are bought and sold. It is a crucial part of the economy, as it provides the liquidity necessary for businesses and individuals to conduct transactions. The money market includes the market for government bonds, commercial paper, and money market instruments such as Treasury bills and certificate of deposits (CDs).

The money market is a highly competitive market, with a wide range of players, including banks, money market funds, and other financial institutions. The interest rate in the money market is determined by the supply and demand for money. When there is a shortage of money, the interest rate will rise, as investors will demand a higher rate of return to lend their money. Conversely, when there is a surplus of money, the interest rate will fall, as investors will be more willing to lend their money at a lower rate.

In conclusion, the money market plays a crucial role in the economy, as it provides the liquidity necessary for businesses and individuals to conduct transactions. The interest rate in the money market is determined by the supply and demand for money, and it is influenced by a wide range of factors, including monetary policy, economic conditions, and global events. Understanding the money market is essential for anyone interested in financial markets and the economy as a whole.
The reserve ratio of banks. The reserve ratio naturally exhibits considerable elasticity. Nevertheless, in order to be able to meet demands for cash and make payments, banks are obliged empirically to ascertain a necessary minimum reserve ratio. Banks with relatively plentiful loanable capital, reflected in plentiful reserves, can more easily assent to loan requests from other banks. If, on the other hand, their reserves are insufficient, banks find it difficult to expand their lending business.

Banks that cannot satisfy the demand of their customers for loans due to the insufficiency of their reserves themselves tend to request loans from other banks. The latter can rediscount bills of exchange endorsed by banks, or simply discount other bankers' bills. This is the typical form of appearance of credit among banks, the operations of which are concentrated in the money market. The money market is basically a rediscount market for banks, which also functions as an efficient mechanism for the daily settlement of matured commercial and bankers' bills. Money markets tend to have a clearly defined geographical location, usually part of an urban commercial centre.

In the money market, the peculiarities of individual banks in discounting bills of exchange, reflecting the territorial specialization of each bank and the degree of creditworthiness of each bill, tend to disappear. Through trading in the money market, the creditworthiness of bills - both endorsed and issued by banks - becomes homogeneous. Individual banks with access to the money market are able to expand and run their credit business more elastically. At the same time, the balance between the demand and supply of loanable capital is concentrated in a single market, rid of local particularities. In the money market, loanable money capital becomes a homogeneous commodity transacted at the same price, that is the market rate of interest, according to the law of one price. A general rate of interest emerges clearly. The money market rate of interest serves as a general standard for the pricing of the individual and local credit advances of banks (Marx, 1884, 488).

Despite representing a degree of social centralization of the processes of credit, the money market remains a mechanism for the partial accommodation of the credit requirements of banks. The relatively independent advancement of individual banking credit to capitalist businesses continues to exist and flourish alongside the money market. Elementary commercial credit (and the credit relations represented by the spontaneous emergence of commercial bills) continues to emerge incessantly across capitalist exchange.

Seen as a whole, the capitalist credit system forms a pyramid-like structure comprising (from the top downwards): the money market, individual banking credit, and spontaneously emerging inter-firm commercial credit. The pyramid itself rests upon the process of capitalist accumulation undertaken by industrial and commercial capitals. Within the pyramid-like structure of the credit system, commercial credit and individual banking credit fluctuate relatively independently of the demand and supply of loanable capital in the money market. The money market rate of interest, though it serves as a standard for the rates of interest in commercial and banking credit, is broadly regulated by the conditions of advance of the latter.

The central bank

Considered in its fundamental nature - above all, independently of the role of the state in the capitalist economy - the central bank is a bank of banks which operates especially in the money market. Generally speaking, banks with regular and easy access to the money market need not issue their own banknotes in order to extend their business flexibly. Instead, such banks can rely on the receipt of deposits and the regular repayment of debt from capitalists whose trade is concentrated at the commercial centre. Money market banks are also well placed to receive money funds from more remote banks in order to facilitate debt settlement; furthermore, they can easily seek to borrow funds in the money market in order to supplement their cash reserves.

Money market banks can increase their efficiency and flexibility, in both handling credit transactions and settling payments among themselves, by depositing a part of their reserves with a single bank and then using its banknotes for payments. The economies and elasticities arising from this practice are analogous to those that emerge when industrial and commercial capitals hold their reserves with a local bank. A central bank emerges as a private bank with a definite and limited capital size: it fulfills the function of holding the central reserve of the banking system; it can also fail or be replaced by another bank. The pyramid of the capitalist credit system is complete when the central bank emerges at its apex.

The banknotes issued by the central bank are typically used as means of settlement among the banks in the money market but also in the commercial transactions of the commercial centre; they are the 'coin of wholesale trade' (Marx, 1884, 529). Naturally, the circulation of central bank notes gradually spreads to commercial and credit transactions between and within local areas closely related to the commercial centre in which the central bank is based. Nevertheless, as long as the central bank remains a private bank with limited capital and circumscribed business activities, central bank notes cannot become a country's generally circulating money. For the bank of banks, issuing and handling banknotes of small face value is not as profitable as similar operations with large notes undertaken among banks.

The social functions of banking credit

The social functions of banking credit are similar to those of commercial credit, but significantly expanded. Banking credit economizes on idle money capital held across industries, thereby promoting the expansion of production and raising the general rate of profit. At the same time, banking credit serves to equalize the rate of profit among industries in a manner analogous to commercial credit. Industries whose products sell at a higher rate of profit due to a shortage of supply, make comparatively heavier use of banking credit in order to expand their purchases of means of production; eventually, the shortage of supply is reduced and profits fall in the direction of the average. Industries with lower than average rate of profit due to excess supply, on the other hand, tend to limit their use of banking credit with opposite results. Banking credit facilitates the reallocation of labour and other resources, making possible the readjustment of market disequilibria and tending to equalize the sectoral rates of profit. In this regard, both banking and commercial credit are mechanisms of the competitive capitalist economy for the realisation of the law of value, effecting the constant reallocation of labour time according to social necessity.

Moreover, as far as the readjustment of market disequilibria and the expansion of production are concerned, the credit system allows much greater flexibility than that inherent...
Joint-stock capital and the capital market

The credit system mobilises idle money capital and enables circulating capital to expand and acquire elasticity. The social organisation constructed on joint-stock capital, on the other hand, mobilises idle money capital to facilitate the creation of large enterprises and the building of enormous industrial fixed capital far exceeding the limited powers of individual capitals. According to Marx (1894, 657), the location of joint stock companies involves the 'tremendous expansion of production, and enterprises which would be impossible for individual capitals.' The shares of joint-stock capitals are traded in the capital market.

The capital market and expected dividend yield

The capitalist economy is a historically specific socio-economic formation grounded on the commodity form. Through the commodity form, capitalism systematically embraces all elements of economic life and subsumes them under the motion of capital. Commodification extends over a great number of the products of labour, but also over labour-power, land, and loanable money in the money market. The process of commodification finally reaches capital itself, the capital market (or stock exchange) is a market in which capital is itself transacted in the form of shares. Shares in joint-stock capital essentially represent common ownership of capital actually in motion. For Marx (1939, pp 261, 275-7), 'joint stock capital' is the highest and most complete form of 'capital,' which logically follows 'capital in general,' 'competition' and 'credit.' Historically speaking, capitalism has not produced a form of capital that transcends joint-stock capital.

Given that transactions in the capital market can be undertaken on a daily basis, relatively cheaply, and with comparatively small sums of money, idle money across society is mobilised for investment in the stock exchange. For the shareholders, the purchase of shares, in the first instance, at earning dividends out of company profits. In this connection, the dividend yield of shares is important. In general, a share's actual dividend yield at a given time is the ratio of dividends per share, D, over the share price, P. However, since dividends are a part of future profits, what matters for stock exchange investors are expected dividends. Thus, the expected dividend yield, \( y' \), is given by the ratio of expected dividends per share, \( D' \), over the actual share price, \( P \).

\[
y' = \frac{D'}{P}\tag{1}
\]

Alternatively, actual share prices can be thought of as the ratio of expected dividends over the expected dividend yield. The rate of interest in the money market serves as the point of reference for the dividend yield expected by investors in the capital market. Given that idle money invested in shares can also be potentially lent out at interest, the market rate of interest regulates the expected dividend yield of shares. When, for instance, the expected dividend yield exceeds the rate of interest, funds tend to flow into the capital market raising the price of shares and lowering the expected yield. The opposite tends to take place when the expected yield is below the rate of interest. Thus, at the margin, the expected yield per share is equal to the market rate of interest, that is \( y' = i \). Consequently, actual share prices can be thought of as the value of expected dividends capitalised by the market rate of interest, i.

\[
P = \frac{D'}{i} \tag{2}
\]

Thus, share prices vary directly with a company's expected profits and dividends, and inversely with the market rate of interest.\(^8\) This simple formulation of share prices, however, must be complemented by three further factors that take into account both the fact that the future is unknown and the dynamic character of capitalist accumulation.

First, while the market rate of interest is a definite nominal rate of return promised on future payments, the expected dividend yield contains elements of risk since future profits cannot be guaranteed in advance. Two types of risk are immediately relevant in this connection: first, risk due to the inherent variability of the unknown future profits; second, the risk of company default. The expected dividend yield allows for risk by incorporating a certain risk premium in excess of the rate of interest.

Second, stock exchange investors also aim at capital gains resulting from future increases in share prices. Thus, the total expected yield of a share \( y'' \), is the expected dividend yield plus the expected capital gains expressed as a proportion of the share price. The total expected yield of a share also includes a risk premium to cover the risks generated by the fact that share prices in the future are inherently unknowable. Expectations of capital gains, which are based on the various calculations, are all based on the simple notion of interpreting every regular payment of income as payment of interest on some imputed capital. Marx called the imputed capital of shares, bonds and the like 'fictitious capital. The formation of fictitious capital is known as capitalisation' (1894, 567). In this context, there are two obvious ways of interpreting the term 'fictitious' capital. First, for government bonds, the money sum does not generally represent capital value invested in producing surplus value. Second, as for company shares, the money sum often represents more capital than actually invested in the production of surplus value. Thus, the collapse of financial asset prices in a crisis might be treated as the destruction of fictitious capital rather than the real capital productivity employed. However, since the behaviour of asset prices in the course of the business cycle can be fully analysed by examining the relationship between expected dividends, capital gains and the market rate of interest.

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\(^8\) Strictly speaking, this formula holds for the mathematically simple case of a perpetual stream of dividend payments of the same size. Under less stringent assumptions there is considerable complexity in the capitalisation calculations. Conceptually, however, there is no difference between the various calculations; they are all based on the simple notion of interpreting every regular payment of income as payment of interest on some imputed capital.
gains, and their changes in the course of economic fluctuations, play an important role in determining both individual and general share prices. Generally rising share prices promote an optimistic perspective of the future in the capital market, and sometimes cause stock exchange bubbles by mobilising the flexible powers of expansion of the credit mechanism. The inevitable burst of such bubbles is often caused, and always worsened, by a swing of expectations toward pessimism. Both individual and general share prices are subject to instability induced by speculative expectations; this makes analyses of share prices that use a static demand and supply framework very problematic. Capital market price instability is an important source of monetary crisis both as an integral part of the industrial business cycle and quite independently of it. As the significance of joint-stock firms has increased in the twentieth century so has the potential for instability generated by the capital market.

Third, the determination of the long-term rate of interest might become quite separate from that of the short-term rate. The short-term rate of interest is determined in the money market, based on the activities of banks mostly in the short-term lending of money capital. The long-term rate of interest, on the other hand, is determined in the market for state (and company) bonds, which are typically promises to pay a fixed amount of interest at regular intervals over a certain period. Bond market transactions usually involve the lending of money over considerably longer periods of time. The total yield of fixed income bonds is determined along the same lines as the total yield of shares, and incorporates the expectation of future bond price changes. The importance difference with shares is that future interest payments on bonds are known with certainty whereas dividend payments are uncertain. The price of bonds thus varies inversely with the market rate of interest, and is also subject to speculative increases and decreases.

For the holders of idle money capital available for short-term investment the risk of losses involved in bond transactions is usually forbidding. On the other hand, idle money capital available for long-term lending is always available for lending to the short-term money market. The asymmetry in the demand and supply of loanable capital is the foundation for the generally higher long-term rate of interest compared to the short-term rate. The extent of difference between long-term and short-term rates of interest, however, cannot be theoretically determined a priori, and depends on the concrete historical and social circumstances of the country in question. The difference could also be reversed in favour of short-term rates during particularly critical phases of economic fluctuations.

It is intrinsic to its nature that the long-term rate of interest might become relatively independent from the short-term rate for certain periods of time. Were such relative independence of the long-term rate of interest to materialise, share prices might also be affected since the expected dividend yield is more naturally compared with the long-term rather than the short-term interest rate. Nevertheless, as both rates broadly relate to the motion of loanable capital, they generally move in the same direction driven by the changes in the short-term rate. Other things equal, a rise in the market interest rate leads to a fall in bond and share prices; the opposite holds for a fall.

**Founder's profit**

For Marxist political economy, the determination of the profit rate is quite distinct from that of the interest rate. The general rate of profit is determined by factors reflecting the material and technical features of capitalist accumulation namely, the organic composition of capital, the turnover time of capital, the length of the working day, and the value of the necessary means of consumption for workers. The general rate of interest, on the other hand, is determined purely by the balance between the demand and supply of loanable money capital in the money market; it does not reflect any aspect of the underlying material reality of capitalist accumulation.

With the exception of some periods of financial tension and crisis, the rate of profit is generally higher than the rate of interest. Given the systematic difference between the rate of profit and the rate of interest, when a new company is established, the money value of the capital invested in real accumulation per share is lower than the share price, as the simple formal presentation below shows. Hilferding (1910, p. 112) called the difference between the share price and the capital initially invested in real accumulation per share, 'founder's profit' (Gründergewinn). Assume that the entire mass of profits is regularly paid out as dividends, and that share prices are the capitalised value of expected dividends, ignoring capital gains. Transfers of funds between the money and the capital markets equalise the expected dividend yield and the market rate of interest (ignoring risk premia). The following variables are relevant: the initially invested money capital in real accumulation, $K$, expected total profit, $G^*$, expected dividend, $D^*$, rate of profit, $r$, and market rate of interest, $i$. The money capital invested per share in real accumulation is $(K/N)$. If money capital flows between the money market and the capital market equalise the expected dividend yield with the market rate of interest, the share price is given by:

$$ P_s = \frac{D^*}{i} $$

Since all profits are paid out as dividends.

$$ D^* = G^* / N $$

Given the general rate of profit, $r$.

$$ G^* = rK $$

Hence.

$$ D^* = (K/N)r $$

Thus,

$$ P_s = \frac{K}{N}(r/i) $$

If $r > i$ the share price, $P_s$, exceeds the money capital initially invested in real accumulation per share, $(K/N)$. Managerial and other costs of financial transactions covered out of profits leave the substance of the argument unchanged.

**The social functions of joint-stock capital**

The form of joint-stock capital greatly facilitates the undertaking of joint investment...
...
2. VALUE-AT-RISK (VAR) MODELS FOR FINANCIAL RISK MANAGEMENT AND REGULATION