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FINANCIAL INNOVATION UNDER MARKET SOCIALISM
by
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1. Introduction

Over the last thirty years, centrally planned economies, also known as Soviet-type, socialist or as instances of realized socialism, have often undertaken and to some extent implemented reform projects for the progressive expansion of the scope of markets at the expense of direct central allocation. From Yugoslavia to China, from Hungary to Poland and the Soviet Union, none of these economies with the possible exception of Albania has escaped this process. The very frequency of reform attempts indicates both the necessity and difficulty of changing the principles of operation of socialist planning, rather than simply introducing marginal improvements. Reform projects have included various degrees of enterprise decisional autonomy, contractual relations instead of central allocation of materials and foreign exchange, direct access to foreign trade, workers' self-management, reprivatisation...

Economic reform has implied also a certain remonetisation of the socialist economy. This paper reviews monetary reform, its latest developments and its systemic limits (sections 2-4) then considers the following questions. Take an imaginary closed economy where socialist central planning has been successfully reformed and converted to market socialism, but where the system's economic or ideological premises still preclude financial institutions such as private ownership of voting equity shares or a full-fledged stock exchange. Are...
there important functions, in such an economy, that might have been performed by the missing financial institutions (section 5)? Could these functions be performed by other personal, financial and other institutions already existing (section 6)? What kind of financial innovation might replace or simulate the functioning of the missing institutions? I will argue that the customary restrictions do not affect the possibility of financial intermediation, and that secondary equity markets potentially perform functions which would be of great importance also under market socialism; that, nevertheless, market socialism could, in principle, replicate or simulate those functions without relaxing systemic restrictions. A three-stage proposal is put forward for financial innovation which ought to replace the missing institutions (sections 7-9); here financial innovation is understood in the technical sense in current debates on capitalist financial developments, i.e., not only in the general sense of new markets, instruments and institutions, but also in the technical sense in which it is used in current debates on capitalist financial developments, i.e., of "banks dis-intermediation" and of the economy's "securitization". Section 10 summarises the arguments for and against the proposal.

It should be stressed that this is a purely intellectual speculation about the feasibility of potentially useful institutions, not a firm statement about desirable change; no market socialist model can be deemed complete unless it considers and settles one way or the other the questions raised by the missing financial institutions.

2. Reform and remonetisation

A moneyless socialist economy, outside a distant full communism, was rarely suggested or practiced; Neurath's Naturwirtschaft (1919), Soviet War Communism (1919-21) at its peak or Cambodia in the early 1970s were exceptions. Lenin had understood the importance of banks as an administrative structure; his intuition and the necessary implications of central planning are reflected in the role of the traditional socialist model, which took shape in the USSR at the turn of the 1930s and was fully imitated in the other Eastern European countries (see Garvy, 1986). In the traditional centrally planned model, money is primarily an accounting instrument of aggregation and control: financial flows are compartmentalised between enterprises and households, with a bank money circuit for inter-enterprise transactions and cash for transactions involving households as buyers or sellers. These financial flows are adjusted passively to planned physical flows and to the degree of their implementation by a single bank monopolising the functions of commercial as well as central banking ("Monobank"). Households are free to convert cash into available consumption goods, a small range of durables including some production goods, or save it in cash or a limited range of financial instruments (deposits, bonds, insurance, lottery tickets etc); the balance of revenues and expenditures of the population is closely monitored and ideally balanced ex ante through price and income policy; it forms the basis of cash issues.

In the reformed socialist model (which still is not fully realised in any actual socialist economy) money becomes a firm statement about economic management, except when planners lose control over financial balances, in which case monetary policy can be an important instrument for restoring that balance.

In the reformed socialist model, commercial banking is separated from central banking (as it was done in Britain with Sir Robert Peel's Act of 1844, which abolished the principal of the central banking school in favour of those of the currency school) and is provided for competing banks (as it had been the case already in the USSR in the early stages of NEP; see Arnold, 1937; Carr and Davies, 1969); investment grants are replaced by bank credit for inter-enterprise loans and self-finance; credit is provided not automatically but at the discretion of banks on a contractual basis and at an interest which is supposed to balance the market; enterprises which are not deemed creditworthy can be forced into liquidation and bankruptcy; there is a wide range of financial instruments available to households and enterprises. Money becomes an unconditional and therefore more liquid means of payment, and a less attractive store of value because of a wider range of alternatives. The way is paved for active monetary policy, using standard instruments such as reserve and liquidity ratios, rediscounting scale and rates, open market operations, etcetera.

The role of financial markets and their possible features in a socialist system have been conspicuously neglected both in the classical literature on market
socialism and in the blueprints for economic reform in Eastern Europe. Pareto (1902, 1903) stressed the immanence of these categories, such as capital and interest, regardless of economic system (Vol. I, ch. 6; a point made also by Bohm-Bawerk, 1909, Vol. I); criticised socialist thinkers for confusing the capitalist and the entrepreneur (Vol. I, Ch. 10) and Proudhon’s monetary and banking scheme (Vol. II, Ch. 11) which, providing money automatically for productive undertakings at virtually no interest, closely resembles the monetary system of a traditional, centrally planned economy. Baron (1908) expected the Minister of Production of his Collectivist State to finance investment exclusively through loans at an equilibrium interest rate that matched the marginal return on investment. None of the proponents of Marxian socialism (Brus 1964). Nave’s “feasible socialism” (1984) only mentions money to say that it must be there and never mentions financial markets. In the latest volume on “Rethinking socialist economics” (Nove and Paine, 1988) financial innovation only goes as far as imitating or simply imitating without change a few capitalist institutions.

3. Recent developments in socialist economies

Monetary and financial institutions perhaps are most developed in Yugoslavia where for a long time, especially since 1971, banking and credit have been major instruments of macroeconomic management; there are a plurality of commercial banks, investment banks and other financial institutions; enterprises can lend to or have a share in other enterprises or even found new banks, or sell bonds to the public including individuals (See Dimitrievic and Macesich, 1973, 1983). However, in Yugoslavia these developments may be due to its specific systemic features since income-sharing by self-managed enterprises is expected to favour financial intermediation at the expenses of direct reinvestment of enterprise income (self-financed assets, unlike the distributed income) and tax-free and are not guaranteed and are taxed. The State Development Bank does about one half of the underwriting; prospectuses are available to investors and advertised; bonds for the population are sold for cash over the counter, have bearer form; they can be retrailed, most of them are listed daily by the State Development Bank and operate a primary and secondary market for bonds issued by public utilities and other state enterprises. There are two types of Hungarian bonds, respectively for sale to the population or to state agencies; the first are guaranteed by the state (which defeat one of the purposes of financial intermediation, i.e. the discrimination between different classes of borrowers with respect to risk) and are tax-free, the second are not guaranteed and are taxed. The State Development Bank does about one half of the underwriting; prospectuses are available to investors and advertised; bonds for the population are sold for cash over the counter, have bearer form; they can be retrailed, most of them are listed daily by the State Development Bank to whom they can be sold back. Dealings take place in a trading room in the Budapest headquarters of the State Development Bank, but there are facilities also in the provinces. The range of maturities at issue is 1-15 years, with yields of 7-15 per cent, and an average of 11 per cent on an average maturity of 7 years. There has been at least one case of performance-linked bond, with interest of 9 per cent increasing to 13 per cent subject to the borrower’s profit performance. These bonds are traded, although a discount is always present, with the price of issue; average yield is presently 10-10.8 per cent, compared with an interest rate of 11 per cent paid by enterprises and of 9 per cent paid on time deposits of comparable length. The typical investor (accounting for 80 per cent of investment) is 50-60 years old. Bonds represent
under 1 per cent of the population stock of savings; yearly turnover is about half the stock of bonds.

After Hungary, the socialist economy most advanced in its monetary and financial reform is perhaps China, where commerce (as reported) has developed and trade in experiments with financial markets are taking place (see Naughton, 1988). Most of the enterprises issuing shares are collective or private enterprises whose employees buy the stock but a few state enterprises are experimenting among each other with stock; joint stock companies are regarded as a mixture of the other three forms of ownership (state, private, collective; see Sensenbrenner, 1987). A first stock exchange is reported to have been opened on 1 September 1986 in Shanghai and the official press has published regulations for bond and share trading in the southern province of Guangdong, where more than 1,000 companies have issued such securities; according to the official Economic Daily "Buyers of shares will be the working public" (Financial Times, 15 October 1986). However this is still no more than a small scale local experiment and in any case shares are still illiquid (having to be held for substantial minimum periods) and do not carry a vote; it is significant that the Shanghai stock exchange had to be closed for weeks after its opening because all the bonds and shares had been "sold out" (Handelsblatt, 27 November 1986), while if that market had been functioning properly oversubscription should have led to intensive retrading.

The Polish reform project of 1981, which is still the official blueprint endorsed by the Party Congresses in 1981 and 1986, envisaged the creation of new, specialised and fully independent credit institutions, with enterprises entering contractual relations with any one bank of their choosing while the Central Bank would acquire a new major role as institution of refinancing for other banks (KPZDSRG, 1981). Implementation to date in principle does away with automatic credit and relies on contractual relations between bank and enterprises, but the National Bank of Poland still combines central and commercial banking functions and has virtually monopolised credit, in spite of the birth (again on the fateful date of 1 January 1987) of an Export Development Bank for the state sector. Legislation on state enterprises (SZPWS) simply refers to "the bank". However recently the chief Polish government spokesman, Krzysztof Urban, is reported to have announced that Poland will offer shares to private citizens in several state companies: "part of a classic stock market like London's have not been included in existing projects, but if there is a demand for it and if it proves necessary or suitable for the good of the Polish economy, we would not refrain from it" (Urban was lecturing at the Swedish Foreign Policy Institute in Stockholm on 8 April 1987; Financial Times, 7 April 1987).

Recently it has been announced that Bulgaria is to follow the Hungarian monetary and financial reform by mid-1987 (Financial Times, 10 February 1987, and East European Markets, 20 February 1987). If Gorbachev's economic reform got off the ground in the Soviet Union similar monetary and financial changes would have to be introduced but so far there have only been unofficial intimations of such a possibility (for instance in an interview with Leonid Abalkin in East European Markets, 20 February 1987, where specific reference to the Hungarian and Bulgarian model is made, and in an interview with Abel Aganbegyan on Italian TV on 15 March 1987; see also Petrakov, 1987, who specifically indicates the replacement of automatic credit with enterprise creditworthiness, a time structure of interest rates, profit-oriented and competing "special purpose" banks, though still subject to the "leading role" of Gosbank).

4. Restrictions on equity ownership, control and exchange

The introduction of monetary and financial institutions, instruments and markets in the socialist model so far has not developed anything new, or system-specific. Well tried capitalist practices simply have been grafted onto the socialist model, only on a smaller scale and subject to three important systemic limitations nature: i) the exclusion of national individual ownership of equity stakes in state enterprises, with the possible exception of China; ii) in any case, the even stricter lack of provisions for shareholders' voting rights to influence managerial appointments, dismissals and policies; iii) the lack of a developed secondary market even for the equity shares owned by state agencies.

It might be argued that these three restrictions on individual ownership, voting and secondary exchange do not derive from the system's economic features but are purely ideological. From a purely economic viewpoint the big divides are i) whether or not individuals are allowed to save (as Joan Robinson used to say, the reward of abstinence is first of all the ability to keep what one abstains from consuming); ii) the payment of an interest on savings; iii) the opportunity to take risk and the reward associated with it; and iv) whether or not private individuals or agencies are allowed to own means of production and hire labour. All extant models of socialist economy encourage individual savings, pay more than symbolic interest, hold lotteries and pay profit-linked premia; while private enterprises - including joint enterprises also with foreign capital and even with a majority interest - are allowed in many socialist economies, such as Hungary and Poland. Once these systemic limits are overstepped, restrictions on individual ownership and control will be. The lack of secondary trading of equities appear to be rooted in the ideological rather than economic principles of the socialist system. Nevertheless, regardless of their causes these restrictions are an integral part of "realised socialism" everywhere; they are hardly dented by the Chinese experiment and given the lack of current plans for further financial reform and the usual implementation lags they can
be expected to continue to apply for quite a while in the foreseeable future.

The rest of this paper considers: i) the implications of these three restrictions on equity ownership, control and exchange for the efficiency of market socialism and ii) the possibility of performing or simulating, in that model, the functions which in a capitalist economy are performed, at any rate, by capital markets with unrestricted ownership, control and trade of equity shares.

5. Financial intermediation and secondary equity markets

It is useful to distinguish between the functions of direct (i.e. primary) financial intermediation and of secondary trading in securities (which is thin or partly missing for shares under market socialism).

Financial intermediaries basically match lenders and borrowers, the short and long term ends of the market, and pool or share risks. The issue of new bonds and shares pertains to these functions and can be performed regardless of the existence of a stock exchange as a secondary market, though of course the anticipation of after-issue prices in such a market when it exists is an important determinant of issue prices. In the absence of secondary retraction, financial intermediation would consist exclusively of the issue of new bonds and shares. The price associated out of concern for speculative instability and the liquidity trap, would be tied to their purchasers in an indissoluble marriage-like contract. Financial intermediation could still be performed, but with two major disadvantages. First, over time on average the resulting illiquidity of financial assets would make them less attractive to potential lenders/investors so that intermediation would take place presumably on a smaller scale and at a higher cost to borrowers/issuers - i.e. less efficiently - than if a secondary market was allowed. Second, speculative instability would be replaced by yields instability in a thinner market where old stocks are not substitutes for new issues. Borrowing on the security of non transferable bonds and shares, or small scale retraction as in the case of unlisted securities, reduces but does not eliminate completely these disabilities and the ensuing inefficiency.

Thus the first function of secondary markets is that of continuously "liquidising" both bonds and the real assets embodied in shares, which would otherwise remain illiquid, or introducing the possibility of indivisible investment from their long term investment. This represents a considerable financial inducement to save and to place savings in bonds and shares rather than inventories and cash. This would be otherwise a more liquid alternative in spite of their actual (storage) or opportunity (forsaken interest) cost. This is an important function in present day socialist economies, reported to be in a state of excess demand (Kornai, 1980; see also Nuti, 1986), not only for individuals if shares were to be made available to them, but for enterprises which could be cured at least partly of their hoarding habits. It is also a possible cure of the syndrome (diagnosed by Kornai, 1980, ch. 13). An enterprise with access to liquid investment in other enterprises, in fact, would be more attractive to potential lenders/investors so that financial intermediation would take place more efficiently than if a secondary market was allowed.

The second function of secondary markets for shares and bonds is that of providing a current valuation of enterprise financial liabilities and above all a valuation of sort of any listed company as a going concern, i.e. a current valuation of enterprises' net physical and financial assets in their current use and under the existing management and the actual policies pursued; together with the dividend record of a company, this valuation and its trend give an indication of past performance and prospects. A corollary which could be viewed as a separate function, is that of bringing the current valuation of an enterprise as a going concern close to the maximum value, not of liabilities, that the enterprise productive assets could have if redeployed elsewhere in the economy or employed in the same activity under a different management and/or policy. If this were not the case an incentive would appear for the company or group to acquire the enterprise and liquidate it, i.e. sell off the plant for the proceeds in the liquidation. The third function which the stock exchange in capitalist economies often does not perform sufficiently or performs only too well (as witnessed by factory closures, asset stripping and insider trading as well as turbulence in financial markets) is very important for bringing managerial capitalism somewhat closer to the traditional capitalist model in spite of the separation of ownership and control (Marris, 1964; see however the reservations expressed by Stiglitz, 1985).

There can be no doubt that these functions, whether or not they are well performed - if at all - in a capitalist economy, are extremely important in a "market socialist" economy where production and trade are decentralised to enterprises and "monetisation" has been introduced successfully.

A continuous evaluation of assets is needed to assess past performance by adding to (deducting from) current distributed profits the increase (decrease) in the value of capital assets used by enterprises; this is preferable to arbitrary and debatable (especially if there is inflation) economic accounting conventions. For the determination of an appropriate capital amortisation allowance to be subtracted from gross profits. Such valuation is also necessary in order to assess the productivity and profitability of enterprise activity, as opposed to profitability calculated on the historical cost (even if properly...
corrected for amortisation) of the enterprise's capital assets; if prospective profitability as a ratio over the current value of assets is lower than interest rates applicable for the period there is a case for considering the enterprise liquidation and redeployment of assets even if prospective profits are sufficiently high with respect to the historical cost of the enterprise's capital assets. Thence all provision are particularly important at times when a productive structure that has become inappropriate to current conditions is being "restructured", in order to indicate the desirability of continued operation versus redeployment and to put all assets on equal footing when performance indicators are used to determine managerial and staff bonuses, profit retentions and credit-worthiness. Polish planners, for instance, have expressed a preoccupation for giving all enterprises "equal chances" with the introduction of economic reform, whereas historical valuations of enterprise assets normally are a biased basis for calculating profitability as an indicator of current and prospective performance, except in the unlikely case of expected profit rates happening to be uniform and equal to their planned levels throughout the economy.

Suppose an enterprise expects to be able to use the assets of another more productively if it could take them over and use them in a different sector or simply change its policies or pursue the same policies with greater efficiency. Suppose also that the first enterprise has the financial means to acquire the second, or it can persuade other enterprises or credit institutions to lend the means to achieve it. The ability of the first enterprise to take over the second simply descends from competitive entrepreneurship and not from capitalism as a system of ownership; once state enterprises are transformed as reform projects state to be the intent - from administrative agencies into competing profit-minded and decentralised agencies, it makes no sense to give them a de facto monopoly in the use of the productive assets which they happen to possess. That monopoly is already broken when a loss-making enterprise is liquidated or bankrupted (for instance in current Polish legislation), as in that case its assets and liabilities can be taken over by another enterprise or be dispersed among a number of enterprises. At present, however, managers of state enterprises - both in capitalist and socialist systems - are protected from "unfriendly" takeovers by groups acquiring a controlling share interest. Yet without this potential threat managers can afford to be inefficient and monopolistic and there is no competitive mechanism which might redeploy efficiently existing assets, in view of the rarity and at any rate the imperfection of markets for used productive assets.

The question is therefore how can these functions be performed in economies which, rightly or wrongly, do not allow individual shareholders to have a vote or possibly even to exist and which do not, in any case, wish to recreate the large scale logistic apparatus of a stock exchange.

6. Existing instruments and institutions
The valuation of capital assets could be undertaken as a centralised task or as a market service within the framework of the respective model. We could imagine a State Committee of Experts for the Current Valuation of Capital, enlisting accountants, economists and engineers, sitting in the capital city and issuing an official valuation of all plants, buildings and land in the whole country officially applicable from 1 January in the base year, revised periodically or on request. Information costs and "moral hazard" make this impracticable; we can presume that if central planning were capable of performing this kind of task, moreover speedily and accurately, it would not need reforming, since the information required for such task is the same as that required for the efficient management of the planned economy, i.e. data about current and future resource allocation and prices.

Alternatively, we could imagine a private or state brokerage agency (as suggested by Manuel Hinds) which, for a fee, would seek better uses for existing capital equipment and locate redundant equipment to fill existing needs. Such an agency, or a number of them in competition, however, would be limited to consensual redeployment of existing assets, and would not perform any disciplinary role on enterprise management.

Starting from a Hungarian-type environment, i.e. public shareholders and commercial banking competition, perhaps the most promising development which could be imitated from Western experience is that of German-type banking involvement in the management of enterprises. The special feature considered here is not the mixed nature of public shareholders, operating both at the short and long end of the market, but their intimate involvement in the management of industrial companies: through the appointment of representatives to the Boards of borrowing firms, through direct shareholding (found to be 0 per cent of share capital in a study of 74 representative quoted companies, Eckstein, 1980) and above all through proxy voting on behalf of those shareholders (by and large the majority) who have lodged their shares with their banks (see for instance Cable, 1985a and 1986b). This institutional pattern was introduced as a consequence of the underdevelopment of capital markets in late nineteenth century Germany and is naturally suited to the rudimentary capital market of a country like Hungary. Public shareholders, possibly also private shareholders without voting rights, could entrust competing commercial banks with the task of overseeing their companies and monitoring and promoting their profitability.

However, the merits of German-type supervision of industry by banks are controversial and the system has come under a certain criticism recently, especially in Germany (Gessler Kommission 1979; Eckstein 1983; Vittas 1983).
system is widely regarded as a second-best option; the dominating role of banks in the stock exchange is resented, especially in view of conflicting interests vested in different functions of banks as lenders, shareholders and advisors to investors, their emphasis on short term performance and the dangers of monopolistic practices (which have attracted the attention of the Monopolkommission, see Cable, 1985a). It is no accident that German bank legislation explicitly prohibits any transmission of inside information by bank representatives on company boards to their own bank or primary employer, or to any other party (Articles 93 and 118 of the Aktiengesetz; article 404 treats any break of confidentiality by bank representatives as liable to prosecution as criminal offence; I am grateful to Felix FitzRoy for drawing my attention to these norms and for providing the next references quoted below from an unpublished paper by FitzRoy and Kornalious Kraft). Werner (1981) suggests that bank officials are well aware of their sensitive position and comply with these prescriptions; Lutter (1981) emphasises that bank appointees on company boards are subject to the mandate to exclusively promote the interests of the company supervised. Thus the kind of board behaviour that is supposed to give banks direct control over their borrowers is actually illegal; control must rely on banks' shareholding and proxy-voting (FitzRoy and Kraft point out that the main role of bank representatives in the supervisory board, or Aufsichtsrat, is to approve annual financial statements and to appoint members of the management board (Vorstand); only at times such as the recent near-collapse of AEG is there any direct involvement by bank representative, while a strong bank presence in the Aufsichtsrat of AEG did not help reveal the build-up of the crisis until it was almost too late). Moreover the German system generates a certain insulation between the real world of production and the world of financial values, which prevents the fulfilment of the function discussed above, of stimulating sufficient redeployment of assets. For these reasons, and as an end in itself, let us explore further the range of permissible financial institutions under market socialism.

What follows is an intellectual experiment understood as an exercise in consistency between the premises and existing models of market socialism. Stage One: a statement about the relative merits of markets versus plans, private versus state ownership, or of alternative models of socialism.

7. Feasible innovation. Stage One: capital evaluation and inter-firm mobility

Imagine a successfully reformed and remonetised socialist economy where enterprises are engaged in production and trade through contractual relations with other state agencies, while planning is confined to macroeconomic policies and truly parametric (i.e. non enterprise-specific) instruments for the central manipulation of market signals. Sectoral policies can be undertaken by the government but sector-specific subsidy or tax differentials must be applied by the government consistently and predictably. Suppose the following steps are implemented:

1) Enterprise managers are asked to assess the current value of their productive assets, as a whole and for specific components (such as individual plants) exceeding a certain ceiling, and to register it with a central public record office; if managers do not provide such a valuation by a given date the central record office automatically enters the book value of enterprise assets. (Yearly book values are already publicly available in Poland for the top 500 manufacturing enterprises and the top 300 state farms).

2) At any time subsequently any other state enterprise can bid for the enterprise's productive assets, as a whole or for a specifically listed plant or other large item. When this happens either the challenged enterprise revises upwards the valuation of its assets to the point that the request to purchase is withdrawn, or has to sell at the highest valuation offered. If the bid is for a section of the enterprise assets the enterprise can link it to other sections but has to prove that there is a technological connection between the two sections. If there is a sale, some percentage of the net residual value as first used to satisfy any claims of creditors, will remain as retained by the enterprise unless it has sold its entire assets in which case any net residual value is transferred to the enterprise's shareholders (in their absence Branch Ministries, defined as 'founders' in Polish law, could take this role).

3) At any time the enterprise can alter its capital valuation registered with the public records office, raising it as new capacity comes on stream or as the profitability of its products increases, or lowering it in consideration of wear and tear, obsolescence, or falls in the profitability of its products.

4) Any increase in the valuation of the enterprise's productive assets recorded spontaneously by the enterprise, or as a result of a bid for its assets (whether failed or successful) in any fiscal year, net of any change in its financial assets and liabilities, is regarded as part of net profit and any fall as a loss to be added to (or deducted from) the enterprise distributed profits. (Any deduction for amortisation becomes a purely internal reallocation of funds in compliance with accounting conventions but no deduction for amortisation is needed to calculate net profit once the change in the current value of enterprise assets has been estimated and added to dividends; whether proceeds distributed to workers should or should not be included in this notion of profit depends on whether the workers' profit share is or is not regarded as part of workers' basic income).
v) Unsuccessful bidders are paid by the enterprise a small commission on their raise over the last previous bid (or over the initial value for the first bidder).

vi) A tax is charged on any increase in the value of the enterprise's net assets due exclusively to a revaluation of existing assets, at a tax rate higher than the tax on operating profit. Alternately, or at the same time, any profit-rate-linked bonus for managers and staff is calculated at a lower rate for that part of the enterprise profit which is due to the revaluation of existing assets.

Enterprise managers have an incentive to undervalue the state of their assets in order to avoid paying tax on capital gains on current bonuses and, above all, by the danger of encouraging other enterprises to consider taking them over. The two opposite incentives do not necessarily cancel out inducing managers to reveal their true assessment of capital values, but their deliberate distortions will be contained within a range which can be narrowed by manipulating bonuses and tax parameters.

The arrangements outlined under Stage One have the advantage of providing i) a continuous, non-bureaucratic, decentralised and automatic evaluation of enterprise capital, necessary to assess past performance and guide current allocation; ii) a mechanism for inter-sectoral and inter-firm mobility of physical capital, necessary to ensure its efficient use; iii) an incentive for enterprises to use their capital equipment in the way that maximises their valuation and a disincentive to invest in ventures which might reduce the net value of their assets. Thus some of the tasks usually expected of a capital market are performed here without a bureaucracy and with a minimum of financial innovation without touching at all the systemic constraints of "realised socialism".

Stage One has an apparent similarity with a proposal by the Hungarian economist Tibor Liska (as Georg Suranyi pointed out to me; see Liska 1983, 1986a and 1986b; see also MacRae 1983 and Barsony 1982). In Liska's "entrepreneurial socialism", however, individuals use the guaranteed income out of their share of social capital to bid for the rental of production goods, renting them if successful or encashing from successful bidders the amount of their unsuccessful raises, surrendering at death their original capital stake and its accretion. Here state and private enterprises bid for the purchase of larger chunks of productive assets, and their estimated Net Worth (or over the initial value for the first bidder) can, at most, bring the valuation of an enterprise's capital up to its maximum value obtainable outside the enterprise. If enterprise capital is not easily redeployable elsewhere or is highly specific or immovable, the possibility remains of its management using it inefficiently undisturbed or exploiting monopolistic power.

The same snag would apply to Liska's proposals. Stage Two is designed to overcome these difficulties introducing voting shares but maintaining the systemic constraints of excluding private individuals from share ownership and voting control and of avoiding a large-scale secondary market.

8. Stage Two: share capital evaluation, exchange and control

Stage Two is composed of the following steps, preferably, but not necessarily taken after Stage One is completed:

i) State enterprises are requested to declare and record in a public register the current market value of their physical assets (hence the desirability of Stage One in order to ensure a realistic assessment of current value), financial assets and liabilities (which could be audited and evaluated at the time of the declaration, subject to the same external bidding in case of divergent views about interest rate trends), i.e. their estimated Net Worth.

ii) The enterprise founders (Branch Ministries if there are no others) are then issued with a number of shares, each of a nominal value of, say, zlotys 100,000, with a total capitalisation equal to the enterprise estimated Net Worth.

(iii) Thereafter the enterprise can, at any time on its own initiative, raise or lower the valuation of its Net Worth, thereby altering the current value of its shares. In practice the enterprise simply announces publicly a revised value of its shares, if unsuccessful reference to its founders as initial shareholders or to subsequent shareholders.

iv) As long as they are shareholders, founders can ex officio raise or lower the valuation of the enterprise shares; however founders must sell the shares in their possession to any state agency (productive enterprises,
banks - including the Central Bank - and financial institutions, pension funds, insurance companies, etcetera) wishing to buy them at the price decreed by enterprises or revised by themselves. The shares so acquired by state agencies are managed by them as owners and not by their own founders; the government can repurchase those shares if they are offered for sale but it can only do this via the Central Bank or through a special State Holding Company, not through the original branch ministries as founders. In this way share transfers implement automatically a decentralisation process which progressively divests ownership and control away from central sectoral bodies, without however violating the principles of public ownership since the transfers do not involve the private sector but are handled through proportional rationing (as in the case of open market operations). In this way the shares of an enterprise at the price published by state agencies are managed by them as owners and not by their own founders. In this way share transfers implement automatically a decentralisation process which progressively divests ownership and control away from central sectoral bodies, without however violating the principles of public ownership since the transfers do not involve the private sector but are handled through proportional rationing (as in the case of open market operations).

vi) If, once the enterprise founders hold no more shares, a net excess demand appears, the enterprise must either accept the surplus bids and issue additional shares at the published price, or raise the valuation of its shares upwards by small predetermined discrete steps until the excess demand disappears (if at some point excess demand turns into excess supply the previous price last quoted is regarded as an equilibrium price though bidders are rationed, regardless of the size of the latest excess demand relatively to either turnover or total stock).

vii) If at the self-assessed share prices of an enterprise there is a net excess supply of shares, beyond the tolerance limits indicated above, the enterprise may choose to reimburse the excess shares at that price but it is highly unlikely to do so unless it is particularly liquid and the management is far more confident of the enterprise prospects than existing shareholders. Alternatively, the enterprise can and, more probably will lower the valuation of its stock until the excess supply of its shares disappears or turns into a small excess demand, at which point the previous case bidders, if there are in equilibrium or are rationed at a price treated as the equilibrium price.

viii) Each share carries a voting right, exercised at yearly meetings of shareholders, or more frequently at special meetings if they are called by a substantial fraction of total shareholders. At those meetings the performance of existing managers is discussed, current policies and future plans can be reviewed and limits imposed on management; most important, profits are allocated to reinvestment or distribution to shareholders, and managers can be dismissed and appointed. If shareholders insufficiently dispersed a controlling interest can be acquired by a fraction substantially lower than the majority of shares. The potential threat of hostile bidders taking over a controlling interest will exert some influence on managers otherwise tempted to stray from the straight and narrow path of efficiency and concern for shareholders' interests. In general there can be no effective market or quasi-market for shares without the attachment of voting rights to shares, because otherwise there is no shareholders' protection against managerial inefficiency or simply lack of initiative or imagination; at a time of centralisation from centralised command to decentralised enterprises the voting provision is even more necessary.

ix) As in Stage One, the change in the market valuation of the enterprise is an element to be added to distributed profits for the assessment of managerial performance. In Stage Two, however, the possibility of managers deliberately overstating the value of the enterprise is ruled out by market discipline (i.e. by the appearance of excess supply of shares at artificially inflated asset values) so that there is no longer a need for a tougher tax treatment of the appreciation of enterprise assets.

x) The operation of this kind of secondary market for shares is not only fragmented and decentralised to each enterprise, but is also intermittent to a greater extent than the capitalist stock exchange as we know it. The secondary market envisaged here is best thought of as opening and shutting once a day, or a week, or even a month, to handle the bids received since the previous closure. In order to iron out the effect of this type of discontinuity (quantitatively no different from the closure of capitalist stock markets outside opening hours and working days) it is best to conceive buying and selling bids not as single valued quantities at the previously announced price but as indications of alternative quantities bought or sold at alternative prices in the neighbourhood of that price; or more simply as indications of reserve prices below or above which the bid is revoked.

The combined outcome of all these arrangements is a kind of slow motion stock market, however with all the features necessary for its vitality, namely competitive bidding, a price at which the individual bids are indivisible and which is determined by the application of managerial discretion. Stage Two can be introduced gradually; it does not violate the principles of public
ownership; it dissolves the sectoral centralisation built into branch ministries thus preparing the ground for their abolition, but it preserves instruments of central government policy both macroeconomic (through open market operations of the Central Bank) and sectoral (through the activities of a new State Holdings Company). In principle, it cannot be said to be potentially better nor worse than the capitalist stock exchange as we know it, except for the exclusion of private individuals. This matters not only because of individual exclusion from a range of enrichment opportunities which is bound to have a discouraging effect on personal savings, but because the exclusion makes the secondary market described unresponsive to information, beliefs and expectations diffused throughout society at large. The additional provisions introduced in Stage Three are designed to remove this limitation.

9. Stage Three: individual indirect participation without either ownership or control

The exclusion of private individuals from direct ownership of shares in productive and financial state enterprises (therefore including investment trusts, common funds, etc.) is not an insurmountable obstacle to individual participation in either risk-bearing or control. Risk-bearing without ownership is already present in capitalist financial markets through options trading as well as "bets" on the movements of major financial indices; with appropriate modifications these institutions could be grafted onto market socialism. One could also add a new institution, namely the indexation of deposits and loans to the cumulative performance of a share inclusive of the reinvestment of dividends, which would produce the same results without the leverage effect and therefore speculative dangers of options and "bets". The idea is that one or more state agencies should buy and sell options, take bets, make loans or take deposits, at prices/odds/ Took such that individuals could gain from spotting above average and below average performing enterprises or lose from their failure to do so, if they wish and on the scale they wish to expose themselves to risk. If, in addition, a mechanism was introduced to ensure that individual "investor" choices had an impact on share prices individuals would be exercising, indirectly, some influence both on managers (threatened by takeover if policies unwanted by the public depress share prices) and on investment allocation (since enterprises popular with the public will register higher share prices thus facilitating their capital raising through share issues). Let us consider first the three alternative modes of risk-sharing without ownership and the pricing formulas associated with each of them, then the question of indirect control.

(i) An option is the right to buy (call option) or sell (put option) shares to anything (e.g. any share above the current market price) before a specific date when the option expires. Normally, however, when an option is exercised by its buyer/owner it leads to a payment by its seller of an amount corresponding to the difference between the striking (i.e. the spot price of the amount of shares involved, rather than to the actual purchase/sale of that amount of shares at the striking price (especially if a share purchase had to be followed by an actual sale for the realisation of profit) for the option). The option transactor thus incurs risk and is exposed to uncertain benefits or losses without acquiring ownership (See Cox and Rubinstein, 1985).

It would not be enough, however, for a share option market to be open in a market-socialist economy where Stage Two of financial innovation has been realised: options trading in capitalist markets is not purely speculative but has a major hedging role for share owners, so that non-share-owning individuals would not be present in large numbers on that market. But suppose that a state agency, possibly the State Holding Company that actually owns shares on behalf of the government, is given the statutory obligation of issuing or buying call or put options. Let us say that call options are traded for a striking share price equal to the current share price and are sold at a price equal to the market rate of interest which would mature over the period on the current value of the shares involved, while put options have either no risk-bearing or control. If any - put or call - option price is paid by the buyer of the put option, in spite of having no access to the secondary market for shares, breaks even if the share purchase had to be followed by an actual sale for the realisation of profit from the operation. The option transactor thus incurs risk and is exposed to uncertain benefits or losses without acquiring ownership (See Cox and Rubinstein, 1985).

(ii) An alternative or additional provision enabling non-owner individuals to participate in stock values gains and losses is the ability to bet fixed amounts of money on a share, or an index of share prices, moving in a specified (upwards or downwards) direction within a prearranged time. In the simplest (or vanilla) version of this the stake would be either lost or doubled, according to whether or not the share or the index move in the predicted
direction; more interestingly losses and gains could be made proportionate to actual price change. For instance, someone holding 1000 forints that a given share will rise would lose his stake if the share does not move (within small bounds), gain 1000 forints for every percentage point increase or lose 1000 forints for every percentage point fall, registered outside the same small bounds, at the time the position is closed by the betting individual within the stipulated time. This type of opportunity is available to investors in capitalist economies, and is indeed favoured because tax treatment being more lenient for betting wins than for capital gains on share trading; for instance, one can bet on the FT index of London shares prices, or on the rate of exchange between dollar and sterling. The extension of this facility to enterprise shares trading, as in the case of options trading, give individuals the opportunity to benefit fully from their ability to predict moves in share prices in spite of their lack of access to share trading.

(iii) The only disadvantage of options and bets on enterprise shares, from the viewpoint of the socialist economy, might be the leverage involved in both institutions, which enables individuals to notionally move masses of shares at a fraction of their market value; in order to discourage the speculative implications of options traded, such would be subject to a cessation deposit corresponding to the total value of the shares on which they are trading options. The combination of compulsory deposits with either options trading or share bets, however, is equivalent to lending and borrowing operations indexed to the price of shares, with reinvested dividends computed into the index. If, as is likely in socialist economies, speculative opportunities are not encouraged, this type of indexation is the simplest financial innovation necessary to expose individuals to the effects of a stock exchange in which they are not allowed to trade shares. Taking a loan indexed to the price of a share and depositing the amount at the normal rate of return; or betting that the share price will fall: purchasing a put option or selling a call option, are all equivalent strategies - given the pricing criteria selected above for these alternatives - for individuals believing that the share of a particular enterprise will perform below the going rate of return. Conversely, a deposit indexed to the price of a share, a bet that its price will increase, the purchase of a call option or the sale of a put option, again at the pricing criteria illustrated above are equivalent strategies for individuals convinced of the above average performance prospects of a particular enterprise share.

All three systems, which could even coexist, presume the existence of one or more specialised state agencies respectively issuing or buying options, or taking bets, or taking or making loans indexed to share performance. If these agencies acted passively they would only undertake those transactions requested by individuals and suffer or gain from the accidents of the aggregate good or bad judgement of individual investors; the obstacle of no individual ownership of shares would be overcome but individuals would have no influence on share market values. The share trade of state agencies would be totally insulated from individual beliefs, information and preferences. This confirms that the envisaged innovation is compatible with total retention of state control - through state enterprises and specialised agencies - over the economy; at the same time, if the public at large disagreed with the government about the relative merits of specific sectors and enterprises, and the public was right, as long as compensatory subsidies and tax changes were prevented the government would be specifically penalised - through the net losses of its agencies transacting options, bets or indexed loans with individuals - for having disregarded the indications coming from the households sector. What is more, the government would be penalised precisely in proportion to the intensity of disagreement between its agencies and the public, measured by the volume of transactions in share options, bets on share price trends and loans indexed to enterprise performance. Therefore even a passive position on the part of the state agencies transacting with the public would produce information, penalties and rewards and therefore an incentive to respond to the public's convictions.

At the other extreme of possible responses, the non-specialised agencies could respond instantly and fully to the public's and investors' choices as compensatory subsidies and tax changes were prevented the government from individual beliefs, information and preferences. This confirms that the envisaged financial innovation is compatible with total retention of state control - through state enterprises and specialised agencies - over the economy; at the same time, if the public at large disagreed with the government about the relative merits of specific sectors and enterprises, and the public was right, as long as compensatory subsidies and tax changes were prevented the government would be specifically penalised - through the net losses of its agencies transacting options, bets or indexed loans with individuals - for having disregarded the indications coming from the households sector. What is more, the government would be penalised precisely in proportion to the intensity of disagreement between its agencies and the public, measured by the volume of transactions in share options, bets on share price trends and loans indexed to enterprise performance. Therefore even a passive position on the part of the state agencies transacting with the public would produce information, penalties and rewards and therefore an incentive to respond to the public's convictions.

10. Summary and conclusions

The recurring attempts at reforming central planning in socialist countries have been accompanied by measures of remonetisation of their economies. This process has gone furthest in Hungary, with the separation of commercial from central banking functions of the National Bank, the establishment of competition in commercial banking, primary and secondary trading in bonds issued by state agencies and enterprises and available to the public, equity shares tradable between state agencies. However, the development of these financial institutions has not found everywhere, in practice, four systemic constraints, namely the lack of private ownership of equity shares (or, in any case, of voting rights associated to them) and the inadmissibility of
a large scale secondary market for the retraining of equity shares. This paper considers the implications of these constraints for the efficiency of market socialism and the possibility of producing the same effects with existing and with new instruments and institutions.

Restricted ownership, control and retraining do not impede completely financial intermediation under market socialism: lenders and borrowers, short and long ends of the markets can still be matched and risks can be pooled or shared. The systemic constraints however prevent the exercise of three important functions of a stock exchange: the liquidity of investment in equity shares, the lack of which is a disincentive to save; the valuation of enterprises as going concerns, which is needed to assess past performance and to plan future allocation; the ensuing mechanism for redeployment of productive assets via mergers and takeovers, which in a capitalist economy does not even require the consensus of the managerial groups involved (e.g. in the case of hostile takeovers).

These functions, which are important also for market socialism, conceivably could be performed by existing types of institutions: a centralised State Committee, which however would reproduce the drawbacks of central planning; a brokerage agency, which could only operate if there was a corresponding different managerial groupings; a German-type banking involvement in the management of firms (through membership of boards, direct shareholding and proxy-voting), which however is subject to criticisms for its internal conflict of interests and monopolistic tendencies. For these reasons, and for its own sake, the possibility is explored of alternative and innovatory financial instruments and institutions.

A three stage scheme has been outlined above. In Stage One state and private enterprises are allowed to bid up the valuation of existing productive assets - a challenged enterprise having to either release or revalue its assets - thus ensuring the potential mobility of resources towards their most productive use outside the enterprises that possess them. Tax and bonus provisions would encourage truthful reporting of asset values; indivisibilities are dealt with by introducing joint bidding for technically joint productive assets.

In Stage Two an intermittent stock exchange is suggested, decentralized to individual enterprises and with share ownership reserved to state agencies, also on the basis of the "challengeable self-assessment" principle. The valuation of underlying assets and liabilities, associated with Stage One, provides a practical underpinning of market valuation of shares but Stage Two could also function on its own, with enterprises and institutional investors (insurance companies, pension funds) as shareholders.

In Stage Three individuals are allowed to benefit from there ability to identify above or below average performing enterprises in spite of being excluded from ownership and control. This is done by means of lending (equivalent to a bear stance) and deposits (equivalent to a bull stance) indexed to the cumulative performance of any enterprise share, on any scale; it could also be done by a system of options and/or bets, though these would have the disadvantage of speculative leverage. Stage Three is compatible with any degree of government interference with the economy, as long as this is consistent and predictable. Namely, the government could pursue its own industrial policy regardless of the indications of individuals' positions in the market for options/bets/indexed loans - and be penalised if individuals are proved right in the aggregate - or transmit fully individual positions to the limited stock exchange of Stage Two, thereby simulating much more fully the operation of a conventional capital market.

The simulation of a stock exchange in a "market socialist" economy of course would expose that economy not only to potential efficiency gains but also to potential drawbacks such as instability, unemployment of labour, insider trading and adverse distribution of income and wealth. If these illnesses appeared antidotes would have to be found. Apart from the insulation between individual behaviour and real allocation, potentially still open in Stage Three, other system-specific remedies could be suggested. For instance, if there is unemployment the pricing of assets and the principles of bidding could be altered, any unused asset being compulsorily released by enterprises to whoever can provide the highest employment at whatever price is offered, unless the enterprise possessing the asset undertakes to match the additional employment offered. Workers' self-management organs could be given or take a lead in the proper valuation of assets (i.e. stamp on insider trading by diffusing relevant information) and in their redeployment. Undesirable distribution effects could be handled by means of taxation.

If the scheme proposed here is deemed unworkable or unsuitable some other scheme will have to be devised. Once traditional central planning is replaced by competitive entrepreneurship it is necessary that monetary and financial institutions should also be altered to match. Unless socialist reformers intend to reproduce a capitalist economy without or with fewer capitalists it is imperative that they should invent and introduce financial innovations suitable to the systemic premises of their brand of market socialism.
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