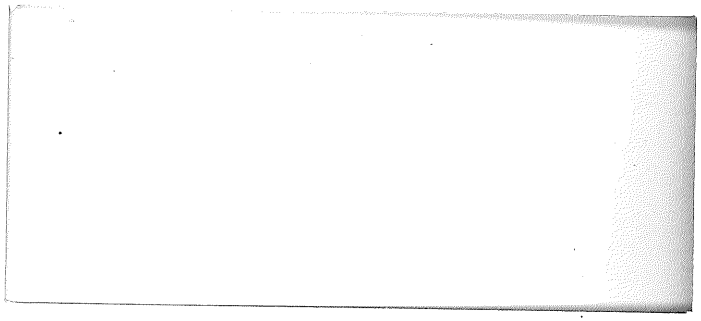

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FINANCIAL INNOVATION UNDER MARKET SOCIALISM

by

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1. Introduction

Over the last thirty years centrally planned economies, also known as Soviet-type or socialist or as instances of realised 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 varying 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, sooner or later everywhere, 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 permitted 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 but hinder the efficiency 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 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 "securitisation". 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, however, 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 Naturalwirtschaft (1919), Soviet War Communism (1918-21) 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 money in 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, 1966). In the traditional centrally planned model money is primarily an accounting instrument of aggregation and control; financial flows are compartamentalised between enterprises and households, with a bank money circuit for inter-enterprises 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 (therefore dubbed "Monobank"). Households are free to convert cash into available consumption goods, a small range of durables including some production goods, or save it as 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 incomes policy; it forms the basis of cash issues. Enterprises can only use finance for purposes specified in plan documents; in this sense Berliner (1976) talks of "documonetary" economy. Investment is centrally decided and allocated in real terms while finance is provided automatically and interest-free from the state budget to investors, who are subject to straight line amortisation charges on the historical cost of their investments and transfer back to the state budget any surplus which they may realise (or rely on further transfers from the budget to cover their planned losses). Credit is mostly short term and is also automatically available to enterprises to finance their working capital requirements necessary to fulfill their planned tasks; it is granted by the Central Bank at an almost symbolic interest rate designed to cover banks' administrative costs. Trade credit between enterprises is forbidden. Thus money in the traditional system is unit of account, two-tier medium of exchange conditionally to plan conformity, store of value in competition with inventories of goods rather than with alternative financial or productive assets. It is an instrument for monitoring and controlling plan implementation (control by the rouble), not an instrument for 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 (which still is not fully realised in any actual socialist economy) money recovers an important role (see Brus, 1964; for a pioneering detection and analysis of the early stages of this process in the 1960s see Grossman, 1968). Financial flows become fully connected, commercial banking is separated from central banking (as it was done in Britain with Sir Robert Peel's Act of 1844, which abandoned the principles of the banking school in favour of those of the currency school) and exercised by 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 credits, 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 economic 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. II, 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. Barone (1908) expected the Minister of Production of his Collectivistic State to finance investment exclusively through loans at an equilibrium interest rate that matched the marginal return on investment. None of the proponents of Marktsozialismus worked out any system-specific arrangement for money and finance. The list includes, beside Heimann (1922 and 1934) who coined this term, Taylor (1928), Landauer (1931), Dickinson (1933), Lange (1938; for a comprehensive survey of pre-War literature see Landauer, 1959). The same is true of more recent literature on socialist blueprints, except perhaps Brus' stress on the importance of money in the decentralised model of socialism (Brus 1964). Nove'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" (Nolan and Paine, 1986) financial innovation only goes as far as a new State Investment Bank. The development of monetary and financial institutions in the "reformed" socialist economies has simply imitated 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 distributed income, cannot be appropriated by workers; see for instance Pejovich 1976 and Furobotn 1980). Moreover, an enterprise in which another enterprise has a direct share investment can pay it back at historical cost, so that what appears as equity is effectively a loan (see the Associated Labour Act, and Uvalic 1987).

Leaving aside Yugoslavia, the most developed monetary and financial institutions can be found in Hungary, especially since the inauguration of the new banking system

on 1 January 1987. The National Bank of Hungary has hived off its credit activities by transforming its lending directorates and some local branches into associated but separate banks, such as Innofinance (or General Financial Institution for Innovation) and a number of commercial banks: the Hungarian Credit Bank, the National Commercial and Credit Bank, the Credit Bank of Budapest (Budapesti Itelbank). These and other commercial banks are or soon will be operating, including the Hungarian Foreign Trade Bank, the General Banking and Trust Company, and three banks with substantial foreign participation (the older Central-European International Bank and the Citibank Budapest as well as the new 45 per cent foreign owned Unicbank). There is an obligatory reserve ratio of 20 percent for demand deposits and 10 percent of time deposits; "to avoid multiple creation of outstanding reserves, deposits taken over from other financial institutions are exempt from the obligatory reserve requirement" (NBH, 1986); the discount rate, which until the end of 1984 was decided by the government, is now decided by the President of the Central Bank.

Bonds were first issued experimentally in Hungary in October 1981 for local authorities and are now regulated by a decree of the Minister of Finance of 1984, n. 28: government, local authorities, financial institutions and enterprises (state, cooperative and joint) can issue bonds subject to the approval of the Ministry of Finance. The State Development Bank is playing a major role in financial intermediation and operates 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 defeats 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 retraded, 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 at various premia or discounts with respect to 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 commercial banking has developed and the first experiments with financial markets are taking place (See Naughton, 1986). Most of the enterprises issuing shares are collectives or private enterprises whose employees buy the stock but a few state enterprises are also experimenting 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 virtual monopoly of credit, in spite of the birth (again on the fated date of 1 January 1987) of an Export Development Bank for the state sector. Legislation on state enterprises (September 1981) simply refers to "the bank". However recently the chief Polish government spokesman, Mr Jerzy Urban, is reported to have announced that Poland will soon offer shares to private citizens in several state companies: "plans to start 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 6 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 or loss 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 and the lack of secondary retrading 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, or at any rate should be performed, 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 retrading, financial intermediation would consist exclusively of the issue of new bonds and shares which, as Keynes once advocated out of concern for speculatory 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 disabilities. 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, speculatory 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 retrading as in the case of unlisted securities, reduces but does not eliminate completely these disabilities and the ensueing 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, introducing the possibility of divorcing investors 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, which 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 semi-permanent 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 and of their "soft budget" syndrome (diagnosed by Kornai, 1980, ch. 13). An enterprise with access to liquid investment in other enterprises, in fact, would find hoarding of both materials and cash more costly than without such an access.

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, net 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 another company or group to acquire a controlling interest and gain from a change of management and/or policy or even the liquidation of the company taken over, regardless of the wishes of the existing management. This 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) 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 prospective 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 over 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. These functions 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 enterprises on an 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 biassed basis for calculating profitability as an indicator of current and prospective performance, except in the unlikely case of ex-post 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 acquire 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 German banks, 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 9 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 1985b). 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 overviewing 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 strong criticism recently, especially in Germany (Gessler Kommission 1979; Eckstein 1983; Vittas 1983). The

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 116 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 Kornelius 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 of crisis 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 efficient 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, not 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:

i) 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).

ii) 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, sale revenue is first used to satisfy creditors; any remainder is 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).

iii) 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.

iv) 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 profits 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. Alternatively, 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 understate the value of their assets in order to avoid paying tax on capital gains or in order to obtain in the future higher profit-rate-linked bonuses; but a limit to their wish to understate is set by the positive though weaker impact of capital gains on current bonuses and, above all, by the danger of encouranging 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 1963, 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, if unsuccessful keeping nothing or at most a small percentage on their raises. The differences between the two schemes are substantial; ultimately they only have in common the permanent state of insecurity of enterprise managers, continuously exposed to the challenge of potentially better users of their enterprise's assets. Kornai criticises Liska for exposing managers to this kind

of insecurity (Kornai, 1982) but no competitive behaviour and profit-mindedness - and therefore no hardening of Kornai's alleged "soft-budget constraints" (Kornai, 1980, vol.I, Ch. 13) - can be expected of managers without introducing precisely this kind of insecurity.

A limitation of Stage One is that it forces managers to utilise their assets as profitably as they could be used in their best alternative use outside their firm and not up to the maximum profitability that could be obtained in the firm, and which only they are likely to know. Stage One 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, i.e. if it 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, without 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 or private individuals. Founders transfer the proceeds of their share sales to the state budget; government policy can affect share prices in such a way as to reduce or raise the liquidity of state enterprises, as happens in capitalist economies as a result of open market operations.

v) State agencies wishing to purchase or to sell the shares of an enterprise at the price published by enterprises or revised by shareholding founders address their request to the enterprise itself (hence the avoidance of a large-scale centralised market). If a net excess demand or supply of shares arises at those prices, if it is small relatively to turnover - say, 20 per cent - it is handled through proportional rationing (as in the case of oversubscribed issues of capitalist companies); if it is large relatively to turnover but small relatively to the total stock of the enterprise - say, 1-5 per cent - it is treated as a waiting list. Otherwise, alternative procedures are followed for excess demand or supply.

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 is highly unlikely to do so unless it is particularly liquid and the management is far more confident of the enterprise profit 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 as in the previous case bidders either 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 revised and limits imposed on management; most important, profits are allocated to reinvestment or distribution to shareholders, and managers can be dismissed and appointed. If shares are sufficiently dispersed a controlling interest can be acquired with a fraction substantially lower than the majority of shares. The potential threat of hostile bidders taking over a controlling interest will exercise some restraining influence on managers otherwise tempted to stray from the straight and narrow development 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 transition from centralised commands 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 their assets 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 (qualitatively 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, negligible indivisibilities, and restraint 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/rates 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 "investment" 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 (or anything else) at a specific price (the striking 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 and 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 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).

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 dividends - if any - paid before the option expires accrue to the buyer of the call option. In this way the individual "investor" buying the option, in spite of having no access to the secondary market for shares, breaks even if the rate of return (including distributed and reinvested profits plus capital appreciation) is equal to the interest rate, gains exactly to the extent that the enterprise shares perform better, and conversely loses up to 100 per cent of his investment if the enterprise shares perform worse than the going interest rate. Or, for example, let us say that the price of put options is set at the same level as for a call option but the striking price is made equal to the current value of shares plus twice the market rate of interest over the period. Here the option buyer will lose up to 100 per cent of his investment, if the selected enterprise performs better than normal, but will gain to the full extent that the enterprise performs worse than the market rate of interest. (Discipline of individual transactors might require that any option price paid by the State Holding Company for options sold by the public should be deposited in a special account as a guarantee to cover the investor's possible losses). Thus, from the point of view of individuals, access to options trade is as good as access to share trade and ownership.

(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 version of this game 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, somebody betting 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 of 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 would, 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 trade, which very often rightly or wrongly come under strong criticism also in capitalist economies, it might be necessary to stipulate that individual traders should, simultaneously with their options transaction, deposit with the Central Bank or with a specialised bank an amount 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 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.

At the other extreme of possible responses, the new specialised agencies could respond instantly and fully to the individuals' choices as investors, offsetting their net exposure in transactions with individuals through balancing purchases and sales of shares, which they unlike individuals are allowed to undertake. In this way the specialised agencies would make neither profits nor losses from share movements, covering their running costs on average out of commissions on their transactions, but would transmit speedily and fully to the exclusively public trade of shares the wishes, beliefs and convicitons of the public at large.

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 financial institutions has found everywhere, in practice, three 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 retrading 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 retrading 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 ensueing 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 consensus among different managerial groups; 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 uses 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, decentralised 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 loans (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 persue 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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