

# **SOCIALIST THOUGHT IN THE POST COLD WAR ERA**

edited by

**Peter Groenewegen and Bruce McFarlane**

Proceedings of a Workshop organised by the Centre for the Study of the History of Economic  
Thought, Department of Economics, University of Sydney.  
February 1994

**JOURNAL OF CONTEMPORARY ASIA PUBLISHERS**  
Manila, Philippines and Macquarie University, Australia

in conjunction with

**CENTRE FOR THE STUDY OF THE HISTORY  
OF ECONOMIC THOUGHT**  
University of Sydney, Australia.

First published in 1995 by Journal of Contemporary Asia Publishers  
P.O. Box 592, Manila, Philippines 1099.

Copyright 1995 Journal of Contemporary Asia Publishers, Peter Groenewegen and  
Bruce McFarlane.

All rights reserved. No part of this book may be reprinted or reproduced or utilized in  
any form or by any electronic, mechanical, or other means, now known or hereafter  
invented, including photocopying and recording, or in any information storage or  
retrieval system, without permission in writing from the publishers.

The National Library of the Philippines, Bibliography Division

ISBN - 971-8639-09-8

## Contents

In Memory of Eugene Kamenka

Table of Contents

List of Figures

CHAPTER 1	Introduction: Changing Economic Thought About Socialist Economy in the Marxian Camp <i>Bruce McFarlane and Peter Groenewegen</i>	1
CHAPTER 2	Marxian Theory and the Economics of Socialism: An Overview of the Legacy <i>Michael Howard and Jon King</i>	13
CHAPTER 3	Fel'dman's Structural Model of Economic Growth <i>Peter Kriesler</i> Comment: <i>Steve Keen</i>	27 39
CHAPTER 4	Maurice Dobb on Socialist Economy Revisited <i>Bruce McFarlane</i> Comment: <i>Debesh Bhattacharya</i>	48 63
CHAPTER 5	The Disjunction Between Decision-making and Information Flows: The Case of the Former Planned Economies <i>Louis Haddad</i> Comment: <i>Ihor Gordijew</i>	69 89
CHAPTER 6	Vietnamese Marxism and the Transition to Market Economy <i>Melanie Beresford</i> Comment: <i>Adam Fforde</i>	93 105
CHAPTER 7	The Yugoslav Road to Socialism in Retrospect: Could It Have Worked? <i>Bob Miller</i> Comment: <i>Wassily Kafouros</i>	109 119
CHAPTER 8	Socialist Thought Today: Menshevism or Renewal <i>Roderic Pitty</i> Comment: <i>Steve Cooper</i>	122 137
	Note on Contributors	141

## Chapter 4

# Maurice Dobb on Socialist Economy

Bruce McFarlane

The events in Eastern Europe, Vietnam and the USSR since 1988 have forced Marxists who once commented extensively on economic issues of the planned economies to re-formulate many of their hypotheses.

Although Maurice Dobb died in 1976, his career as an analyst of socialist economic theory and practice was in the first rank of influence and quality. It is useful then to re-examine this leading thinker to see where his Marxian economics produced insight still useful today, and where he was led astray. Poignancy is added by the fact that his very last article was on the topic "Commodity Production Under Socialism" [Dobb 1976b] in which he canvassed issues highly relevant today: the usefulness of an NEP period for all socialist countries; the futility of suppressing market forces; the danger of treating consumption as a residual of a plan and consumers with contempt; the need for raising consciousness about "investment effectiveness" and economic efficiency generally.

In this paper, two aspects of Dobb's work are distinguished and treated separately:

- (a) his views on the changing economic structure of the planned economies in the course of accelerated industrialization;
- (b) his views on *operational aspects* of the planned economies, including market forces, pricing, central planning, allocation of investment, labour markets, taxation and monetary policy.

While this distinction has been made for purposes of clarification in this paper, it corresponds with the actuality of Dobb's input into the debate on socialism. While he started with operational aspects in the 1940s [Dobb 1947] and returned to them in the 1960s [Dobb 1960, 1961] and again in the 1970s, the 1950s and 1960s were largely taken up with the working out of his structural models of growth. For the planned economy in his view, like the developing economies, had to solve three crucial issues: setting the national rate of investment in an orderly way; distribution of investment expenditure and capital stock between the sectors; choice of technique (and investment effectiveness) [Halevi 1993, Dobb 1960a, Dobb 1967].

At the end of this paper Dobb's rarely penned views on the *politics* of post-capitalist society are briefly mentioned for the sake of completeness.

### 1. Structural Models of Production and Structural Change in Socialist Economies

This issue was first raised in Ch. 8 of *Russian Economic Development* in the context of Dobb's discussion of the Soviet Industrialization Debate. It will be recalled that Bukharin and Preobrazhenski debated "heavy industry first" versus "agriculture as the foundation" while there was also much discussion of "unbalanced growth" (which all schools actually supported) and "dynamic growth" in which Bazarov and Shanin took part. Dobb was much interested in these early discussions within the first socialist country concerning the "strategic" sectors. He returned to this issue and these contributions in 1969 with a huge manuscript on the Soviet debates of the 1920s for the Italian "Annali" series [Dobb 1969], a piece from which we can all profit today, as it contains insights about the damage done by "wrong" strategies.

In 1951, on a visit to India Dobb gave three significant lectures at the Delhi School of Economics (Dobb 1951). The second raises theoretical questions about growth and structural change, with several references to Soviet experience. The third lecture was specifically on the lessons of Soviet growth experience for India and similar economies undergoing transition from economic backwardness to industrialization. In lecture three a major theme is that a country *inherits* a certain capital stock and range of industries. It follows that a decision taken in the current 5 years will actually dictate the economic structure a decade hence.

Also stressed were *indivisibilities* in investment and production which required a network of related decisions rather than the marginal choices of neo-classical theory. This aspect of Soviet 5-year plans, Dobb argued, reflected the presence of *complementarities* in production which a socialist economy, through its planning mechanisms, was well fitted to accommodate.

Perhaps looking in the Delhi lectures with their overwhelming emphasis on production and investment decisions it is obvious that lacking was the whole area of consumption and how it was to be treated in socialist planning - as an active variable or the passive result of what was left over in the national income once all the investment decisions had been implemented.

### 2. Comments on Dobb's "An Essay on Economic Growth and Planning" (1960)

The most comprehensive statement of Dobb's view of the need for a structural approach to growth is in *The Essay* (Dobb, 1960b). I now review its main themes:

- (a) *Implications for theories of socialist economic development in Dobb's Essay on Economic Growth and Planning of 1960*

The issues raised in this book will not be novel to anyone with experience of planning in socialist countries. The issues are essentially those debated in the Soviet Union in

the 1920s before the First 5-year Plan and in the period of subsequent 5-year Plans. The one exception is the discussion of price-relations in the last chapter (probably the least fully worked-out sections of the *Essay*) where an attempt was made to suggest that certain "macro-price relations" are the necessary complement of the production relationship, and policies examined in previous chapters. Dobb can perhaps claim to have given quantitative precision to the reasoning involved in such issues as the distribution of investment, especially as between sectors; the choice of the rate of investment; and, (in selecting investment projects) the choice between capital-intensive (and highly-productive) techniques as against techniques embodying lower productivity (but more employment-creating).

The *Essay's* arguments, moreover, were put forward explicitly in the context of discussions in India in the 1950s, as well as 1960s growth theory discussion among Western economists, and in United Nations circles concerning practical problems of growth and development. These issues were being increasingly framed, at that time, in *policy* terms. That is, they were framed in the form of the question, "what should policy aim to achieve" rather than in the form of "what will tend to be the natural result of economic forces operating in this or that circumstance?"

However, underlying all of this questioning were theoretical issues. Some economists were arguing that the rate of investment ought to be decided according to some principle of time-discount (with its extremist corollary, used by anti-planners, that investment flows ought to be left to be determined exclusively by the private capital market, or by individual saving-decisions and investment-decisions). Others strongly supported the corollary of the "factor proportions" theory, (associated with marginal productivity and static comparative cost notions) that in underdeveloped countries with surplus labour only the most primitive techniques (mainly labour-using and capital-economising) should be used.

Dobb's theoretical response was to marshal arguments against time-discount as a criterion of the rate of growth, and, instead, to defend the significance of certain other investment-determinants - which were to be sought in the conditions of production. Moreover, the Dobb growth model was constructed on the assumptions of a planned economy where key decisions are taken by some form of public body or State organ (which can use price-systems to varying degrees in order to get its decisions carried out). This framework was seen as more appropriate than models of a *laissez-faire* economy that economists had traditionally used, if only for the simple reason that Dobb deals with questions of what are the right and wrong decisions to take.

To have adopted a model of this kind might seem at first to imply a completely *voluntaristic* study where anything can happen - even a world of ethics and moral judgements rather than of economics proper with strict study of cause and effect. This is what had largely happened in the case of welfare economics with its attempts to frame policy-criteria in terms of welfare-optima.

But if, as in this book, constraints are studied then voluntarism in planning can be avoided.

### (b) *Theoretical model of Dobb's Essay of 1960*

Although still very general and abstract, Dobb's model was basically Marxist in spirit. Two examples of this are:

- (i) taking the two "departments" of the economy (Dept I - capital goods and Dept II - consumer goods) as Marx also had done, but with the differences that it is a model for a socialist planned economy and that Dept I was re-defined to include only "produced instruments of labour," i.e. machines;
- (ii) dealing in terms of *labour* and its productivity, thereby avoiding controversy about capital's productivity, since the model deals in capital-goods, not capital as a "factor of production."

Another example of the Marxist approach involved in tracing back the investment determinant to the conditions of production was that in discussing the choice of technique a particular problem was examined: choice in Dept I and how to handle the fact that machines are made in this department which are designed to make machines as well as to produce consumer goods in Dept II. Dobb went on to make a few fairly simple and obvious statements about what was implied in maximising growth in the face of alternative investment determinants. These were simple and obvious once stated, but very often ignored in economic writing of that time nonetheless.

In conducting this analysis Dobb did not imply that maximising growth must be the exclusive objective: obviously it will need in practice to be modified by other considerations such as higher income, consumption and employment in the immediate future. But he saw that the conditions for achieving the highest possible uniform growth rate are at least capable of *precise* formulation (more so at least than maximisation of welfare over time); and unless the date in the future when income, consumption and employment all rise *above* what they would otherwise be under policies of slower growth was not very far ahead (and the indications were that in the most likely circumstances it was not very far ahead) maximising growth will be beneficial.

The two investment determinants next considered were in turn:

- (a) that of the surplus of consumer-goods production over the self-consumption of producers in this Department II sector; this determined the amount of labour which can be employed at a given wage in the capital goods (or investment) sector of course this implies the postulation of a certain wage as in some sense, socially or politically necessary);
- (b) the amount of productive capacity in the capital-goods sector. This led to a 2-sector analysis along the lines of Marx's schema of reproduction, the only difference being that Dobb treated the investment sector as producing only fixed capital equipment, treated raw materials for consumer-goods as produced *within* the consumer-goods sector (Dept II).

An emphasis on (a) as the determinant of investment leads to the criterion of maximising surplus product in the consumer good sector, and as a result, choosing (if faced with alternative production techniques) a more capital-intensive technique<sup>1</sup>



though not one of indefinitely high capital intensity, yielding a relatively higher productivity per man than the orthodox bourgeois approach (factor proportions theory) implied.

Emphasis on (b) led to the advocacy of a high proportion of investment being allocated to Dept. I (the capital-goods sector).

Prescriptions (a) and (b) do not conflict, when in fact, one has to regard both determinants as operating conjointly, if in different degrees at different times and situations: they can be treated as *complementary*. But it follows that if real wages are to be treated as absolutely rigid there is no freedom to vary (b), short of "dynamic" changes in productivity due to changed technical knowledge, improved organisation, higher skills and "know-how." Apart from the latter, the achievement of higher productivity growth by method (b) (i.e. raising the proportion of investment devoted to Dept I) must involve increasing total employment faster than the output of consumer-goods and hence a fall in consumption per head of *employed workers* (though not necessarily of total consumption nor of consumption per head of the total population). In other words, it would involve for a period a re-distribution of consumption *within* the working class - between formerly employed workers and newly employed ones (to the advantage of the latter but to the disadvantage of the former).

Reverting to strategy (a): in pursuing the enquiry as to what should be the criteria for choosing technique in Dept I this sector was in turn divided into branches according to whether capital-goods were being produced for use in the consumer-goods sector or in the producer goods sector ( $M_1$  and  $M_2$ ) and account had to be taken of the fact that, unless there was to be a needless lengthening of production time-lags (which planning tried to eliminate), the size of production in the latter ( $M_2$ ) must be governed by the expected rate of increase in its *own* production as well as the increase in output of branch  $M_1$ .

The conclusion reached was a quasi-Ricardian one, not without interest from a formal standpoint, that with analogous cost-conditions in the two sectors, the techniques chosen should be the same as the technique which in the consumer-goods sector maximised the surplus of this sector. "Similarity" was defined as a relationship between differential productivities in the using and the machine-making activities changing the technique in a more capital-intensive direction multiplied by a factor e.g.:

$$\frac{-dp_i}{p_i} = \frac{dp_c}{p_c} \cdot \frac{s+w}{s}, \text{ similarly}$$

$$\frac{-dp_m}{p_m} = \frac{dp_c}{p_c} \cdot \frac{s+w}{s}, \text{ where } p = \text{productivity}$$

$s = \text{surplus}$   
 $w = \text{wage rate}$

This relationship, translated into concrete terms, means the point in the range of alternative techniques where the percentage change in productivity in machine-building (for a given change in technique), instead of being *equal* to the percentage change (of opposite direction) in productivity in the machine-using industry, being equal to the latter multiplied by the inverse of the share of surplus in total production.

### (c) Price in a Socialist Economy

An important issue is the ratio of cost and prices of sectors, so that these price relations can be seen as an expression both of labour productivity and the structure of production as regards Departments I and II in a planned economy.

A crucial question in price-policy is an allowance for surplus product or a rate of profit to be added to prime costs, and how this rate is to be determined. Should it, for example, be an equal rate for Departments I and II or a differential one? The answer suggested was that from the standpoint of encouraging the right choice of technique ("right" in the sense of Dobb's previous analysis), the rate of surplus product (equal to the difference between the retail price and "prime cost" including "prime costs" of the distributive organs) which corresponded to (and was causally attributable to) the rate of investment *should* be included in the price of both sectors. Moreover, it should be included in such a way as to impinge upon enterprise decisions - it should accrue as profits to the enterprises subject, of course, to a highly proportional profits tax. That part of the surplus product on profit in the retail price of Sector 2 which is attributable not to *investment* but to *social* expenditure on defence etc. should *not* be carried over into the price of Sector I goods, and should, moreover, continue to be covered by a turnover tax, and hence not accrue to or influence the decision of producing enterprises.<sup>2</sup>

The usefulness of "structural" models of production and growth has been much debated in the most modern context of the "structuralist" versus monetarist approaches to solving Third World problems. As is known, a struggle has been going on for some time between these two approaches and their exponents within the World Bank/IMF incubus [Hayter, T. 1960, World Bank 1993]. Dobb's contribution to thinking about growth and structural change was surely very great. True, he never was much involved with the important input-output work so much needed in a planned economy. Nor did he take on board "vertical integration," which Pasinetti has made his trademark. But in the context of 1950-61, Dobb's "structuralism" was most useful in getting economists off the demand-driven Harrod model and directing their attention to *both* bottlenecks and *potential*. But Dobb shared with Feldman [Domar 1957], a too-optimistic view of the severity of the trade off between investment and consumption in a planned economy, as well as sharing Feldman's *underestimation* of the time horizon, the time period between "sacrificing the rate of growth of consumption in the near future to obtain a higher flow of consumer durables in the medium term."

Joseph Halevi, an economist of great skills who prepared a number of articles on "structural growth models" in which Dobb usually appeared with others, has recently cast a more critical eye over this aspect of Dobb's work. [Halevi, 1993]. While mainly stressing his preference for Adolph Lowe's structural model of production over that of Dobb, because it "highlights the qualitative, not quantitative, supremacy of the capital-goods sectors," the British Marxist is taken to task by the ex-organizer of Italian labour unions. Dobb, says Halevi, did not consider the all-important *traverse* - i.e. the *path* of economic growth from point to point in historical time.

Also, Halevi seems not impressed these days by any approach, including Dobb's, involving an *accelerator in reverse* which Halevi regards as unjustified if there is *no need* to expand the production of capital goods well in advance of any market demand for them (eg by imports if foreign exchange constraints can be overcome). Halevi denounces the "idealistic romantic element" expressed by Dobb's hypothesis that no prior machine stock exists.

Halevi's comment is unjustified because it is ahistorical. Dobb advocated steel and machine-tools for India and Eastern Europe because such things were simply unobtainable on the world market at that time.

### 3. Dobb on Operational Aspects of Socialist Economies of Eastern Europe

As is well known, Dobb was one of the first to write in English, and in any detail about such aspects of the Soviet economy as labour, consumption, budgets, banking, planning hierarchies and joint State-Party economic committees [Dobb, 1947]. In his books on the USSR before 1960 he firmly supported the mechanisms of 5-year Plans, Gosplan, plan-targets, iterative planning in which the Centre selected "leading link" industries. This was strongest in his popular books of the 1940s and in his early 1930 work, *Russian Economic Development* (which became *Soviet Economic Development Since 1917*).

From 1957, however, he undertook deep study of a new research project - ECONOMIC REFORM in socialist-countries. This led him to review such issues as price policy, investment efficiency issues, decentralization of output-mix decisions to the enterprise (Dobb, 1967).

First, he argued that the older system of "material balances" had become cumbersome (Dobb, 1960a); second, he criticised the operation of the credit plan implemented by the banking system, pointing to the need for more financial flexibility to meet unforeseen events and "above-plan" needs (Dobb, 1960a); third, he demanded use of an index of investment effectiveness or periods of recoupment in project-evaluation (Dobb, 1961a).

When the Czechoslovak reforms (in their first version) began to appear, Dobb supported them (Dobb, 1961).

In the USSR quite a few economists discussed the role of prices and price formation during the late 1950s. Dobb joined this debate, (Dobb, 1960a and 1967) criticising bureaucratic attitudes to price changes, attitudes which were resulting in disequilibrium in markets and called for much emphasis on market research (Dobb,

1960a). Recalling Lenin's emphasis on *Khozraschot*, he was dubious about proposals to relate industrial wholesale price-differences to retail price-differences to the extent of widening industrial profit-margins on specially scarce goods or lines of varieties.

Had these attitudes prevailed in the socialist economies, much waste, shortage and consumer dissatisfaction - key elements in the political discrediting of East European socialism - may have been much reduced. It was only 30 years later in Vietnam, for example, that ideas like these (eg advocacy of market research) began to be seriously addressed. Indeed, one is constantly amazed that Vietnamese and Chinese economists are so ignorant of the Soviet debates of the 1920s; the Soviet price and investment debates of the 1950s and 1960s, and of Dobb's work.

It is true, of course, that Dobb did not want the scope of the market to be too wide nor deregulation of economic life to go "too far." This is evident in his cool attitude to Yugoslavia, whose economy he considered to be hampered by *too much* deregulation of the investment function and a general lack of co-ordination and ex-ante planning. One can find, way back in the 1930s articles on socialist economy (commenting on Dickinson and Lange) (Dobb, 1955 Chs 2-3) that he feared the "marginal efficiency of capital" for socialist managers would vary with the national growth rate, introducing a great deal of instability into the "planned" economy.

He failed to note the considerable anarchy involved in Soviet planning (seen in such phenomena as stock cycles, shortages of key fuels and materials, queues for consumption goods, and the practice of "storming"). The cycles he feared would be a feature of market socialism in fact emerged in East European "planned economies:" the well known "socialist investment cycles" [McFarlane 1984; Bauer, T. 1978; Maruyama, N. 1983; Dahlstedt 1979].

Dobb's last article, delivered on 8 May 1976 and published posthumously, is most important in regard to the issues of ownership-complexion and the role of market forces in a planned or socialist economy. He recalls that in the 1930 book *Russian Economic Development*, his attitude to NEP, was contained in an "Excursion on Money and Financial Accounting" which "virtually interpreted and defended NEP as a system of monetary accounting resting on the market" [Dobb, 1976 p. 5]. He goes on to admit that in the 1930s, "following the official line I swung over to the justification of centralised planning as a mechanism of co-ordinated decision-taking and criticised the Lange-Lerner type of mechanism as too decentralised and allowing too much play to market forces" [Ibid, p. 5].

He also regretted the neglect of consumption and the underdevelopment of retailing in all socialist countries:

I feel no hesitation in saying that, if one is to have material incentives in production, the amount of freedom of choice in individual spending is a necessary corollary; and even if one did not have such incentives, it is clear that consumers would be better off (and would doubtless opt for) choice of spending in a retail market than with universal rationed issues in kind [Dobb, 1976].

In this last article, written in 1976, Dobb went on to say:

- (a) "the idea of all things being centrally controlled and co-ordinated turns out to be a romantic myth;"
- (b) quite a lot of decisions will have to be taken of necessity at lower levels - preferably at the level of the industrial enterprise, since there the details of the production situation are best known, as well as the demand for various products (so far as this is expressed in consumers' orders);
- (c) "if lower level decisions are not co-ordinated centrally (in any full sense at least), there seems no alternative to their being co-ordinated, in some form, by the market or by market indices;"
- (d) "the traditional view, that commodity production and socialism are incompatible, still held by many on the Left (or ultra-Left) today, must evidently be abandoned;"
- (e) "NEP embodied, at the same time, elements essential in a socialist economy, at any rate in its first stage: something which should have been recognised in the discussions of the 1920s and after."

Clearly this is a manifesto, not of a Stalinist, but of a reformer, a sympathiser of NEP, of someone reconciled to the inevitability of markets operating in a socialist economy.

#### *Dobb as a Marxist on Socialism: What Remains?*

Dobb wrote most about Marxism in his studies in the history of economic thought and his historical works like *Studies in the Development of Capitalism*.

However, like Djilas, he used Marxist methods and categories in his studies of the planned economies of Eastern Europe and the Soviet Union. His first and perhaps classic work, written in 1927-8, *Russian Economic Development Since 1917* regards Soviet society as an object of study, an object to which historical materialism, dialectics and other categories could be applied.

In keeping with the sentiments expressed in his "Historical Materialism and the Role of the Economic Factor," [see Dobb, 1955] an essay which is a good guide to his Marxist thinking, he rejected a rigid "base determines superstructure" model. He was, for example interested in *social relations* in the USSR [Dobb 1947, 21, 23-4, 29, 199, 488]. And it is worth looking at some of the questions he posed about Soviet society:

- (i) Do we start with the category "state capitalism" for the Lenin period?
- (ii) What is the role of mixed companies in a socialist economy?
- (iii) NEP: what is its nature and significance of it as a mode of production?
- (iv) Why is there excessive bureaucracy in Soviet systems?
- (v) Has the role of the peasantry in the USSR been underestimated by Marxists and policy-makers?
- (vi) Can the managerial class gain enough social power to counter some of the planners' preferences and commands?

All these questions have been extracted from Dobb's major work on USSR economy: *Soviet Economic Development Since 1917* published in the 1940s.

If one assumes USSR/East Europe could be moving to a new form of *market socialism* rather than to full-bodied capitalism then clearly Dobb's questions, based

on Marxian perspective, remain relevant. They are actually helpful in combating confusion and what L. M. Haddad has called "common fallacies in interpreting moves from planned to market-based economies" (Haddad, 1994).

#### *4. Dobb and Politics*

While often thought of as a blind follower of the USSR and the CPGB the reality of Dobb is a bit different. While Dobb can certainly be described as a dedicated Communist, he did not always "toe the line." His book, *On Marxism Today* (1932) was savaged in the Communist Press. A Party trial was then staged at Cambridge at which he received a "severe admonition," and was reported to have vomited several times into the Faculty toilet bowls.

In 1956, with the crushing of the Poznan workers' revolt (during a Dobb, Meek, Joan Robinson visit to Poland), he criticized the policies that had led to the revolt (over-accumulation; poor planning execution) and the suppression of the revolt itself. In *Marxism Today* 1957 he warned against treating all Western economists as a "homogeneous reactionary mass," and in the *American Economic Review* he gave a cool review to a Soviet author, Madame Kharvina for doing just that.

In various letters to Party colleagues, (Smith, J. 1992) Dobb warned of the urgent need for East European economic and political reform during the whole period 1957-60. In 1961, in *Labour Monthly*, a Party journal, he explained and welcomed the reform then being undertaken in Czechoslovakia. (He had become friendly in 1957 with leading Czech reformer Ota Sik and Polish reformer W. Brus).

In 1968, Soviet tanks overthrew the Dubcek regime, which had pursued the sort of economic reforms and policies developed by Ota Sik and of which Dobb strongly approved. Supporters of the Soviet action within Communist Parties became known as "Tankies." For a while, they dominated the British Communist Party, but were opposed by a strong minority group. Dobb gave a strong speech on behalf of this group at a crucial Congress of the CPGB.

It would appear that in the 1970s, while Dobb's writings were largely dominated by research on the history of economic thought (culminating in his Marshall lectures and the book *Theories of Value and Distribution Since Adam Smith*), what he wrote on socialist countries continued to support decentralization, more financial flexibility and general democratisation of economic life in Poland, Czechoslovakia. His diaries (Smith, J. 1992) show he kept in correspondence with reformers in Eastern Europe, and received a number of them at Cambridge, as well as travelling often to Warsaw, Belgrade, Budapest and Prague to give seminars and support the reformers.

#### *Conclusion*

Assessing a long career of a person like Dobb, politically committed but also partly cut-off by residence in Cambridgeshire, requires recognition of the "culture" in which he operated and to which he responded.



There are three overlapping strands here. First, there is the culture of the Party, Marxism, British-style (*Labour Monthly*, the *Daily Worker* etc). Second, there is the culture of Cambridge - the "unnecessary originality" of the British; the Keynesian supporters; Kings College and Trinity College; Sraffa etc. This was "leavened" to some extent by almost constant visitors, especially from Eastern Europe, Japan and Third World countries. Third, there is the culture which produced in United Nations circles and in the Academy of development economists, an obsession with economic growth in both planned and Third World economies. Dobb's work is replete with growth rates of 5 year plans; theories of growth from the Soviet economists of the 1920s to Kaldor; "structural models" of growth: Feldman, Bor, Lowe, Marx. It is also full of the planning problem and public sector role in third world countries [Dobb, 1963].

Once the powerful influence of these cultures is fully understood, Dobb's work can be better appreciated. He shared the "blinkers" of many Marxists and Communists; undoubtedly he made many wrong predictions as to how the growth performance and the efficiency of central planning would turn out. On the other hand, once he had experienced the Polish workers' revolt in Poznan (1956) he strongly supported political and economic change, and in the direction of decentralization. In his last work he saw NEP as a viable system in its own right and left the door open for substantial deregulation in socialist systems.

## Appendix

### *Dobb on Choice of Technique in Investment Planning \**

Dobb's *Essay* of 1960, as noted above, was designed to discuss the problem of the choice of techniques in circumstances of a development strategy constrained by a limited surplus of wage-goods and an initial lack of machine-tools. Halevi does not like Dobb's specification of the model, particularly that he did not set a structural constraint on the production of capital-goods (Halevi, 1993).

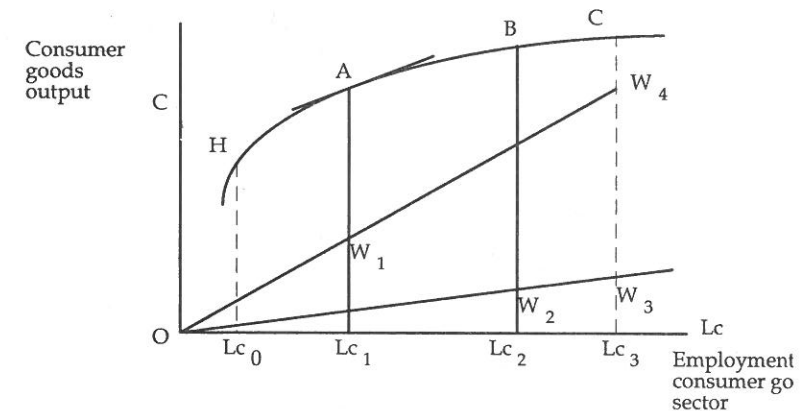
Perhaps Dobb's ideas can be best explained by seeing it through two prisms: (a) the Sen-Dobb approach and (b) the neo-classical or Wicksellian approach based on production function.

### *Maximum Growth Criteria in a Sen Model*

Dobb argued that in the longer-run an economy will generate more employment by accelerating its overall growth rate and maximising surplus to assist the growth rate if more capital-intensive technology is chosen. He rejected the idea of giving priority to labour-intensive techniques of production as a way of solving the unemployment problem. This is shown in a Sen model by Figure 4.1 what takes the integrated consumer-goods sector and looks at combinations of "maximising surplus" criteria and "maximising jobs" criteria. In Figure 4. 1,  $OW_4$  represents the wage line and  $HC$

\* I am indebted to Dr D. Bhattacharya (Sydney University) for discussion of these points.

Figure 4.1: Choice of Technique in Sen-Dobb Model



the output line.  $AW_1$  and  $CW_4$  are surpluses (gap between output line and wage line). Dobb favours choosing  $Lc_1$ .

The technique of production which maximises output is given at  $Lc_1$  where job creation is less than at  $Lc_2$  or  $Lc_3$ . Dobb argues quick re-investment of  $AW_1$  will stimulate maximum growth of consumer goods output. Dobb's critics (eg. Joan Robinson and M. Kalecki) preferred a point to the right of  $Lc_1$  (in the area between  $Lc_1$  and  $Lc_2$ ).

### *Maximum Growth Criterion in a Wicksellian Production Function Model*

This time we assume a one-sector model, with capital-goods produced by unaided labour.

In Figure 4. 2, Maurice Dobb's interpretation of the maximum growth criterion is given at point A. This is where surplus is largest also, if  $OW$  is wage rate per worker, and  $OA_1$  is output per worker. Surplus per worker is  $A_1-OW$  and is largest at  $O A_1$ .

The points A and B of the Sen model (both depending on the wage rate prevailing) correspond to point A in Figure 4.2. (It may be noted that point B is the solution for the choice of technique where the criterion used is maximum immediate output, and point C on the production function is the solution when the criterion for the choice of technique is immediate employment creation).

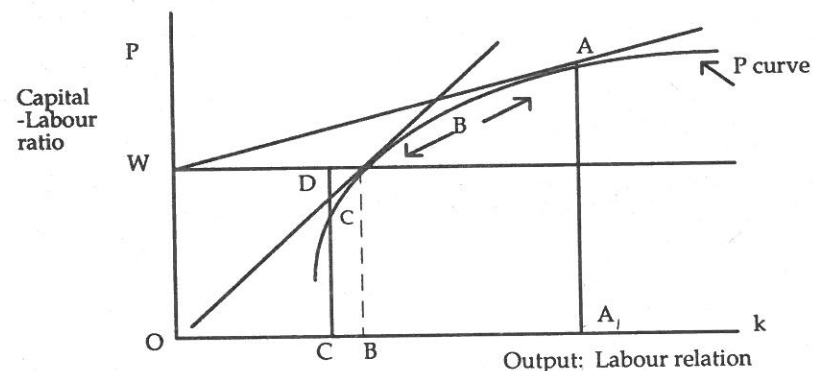
This model may also be used to illustrate Dobb's comments (referred to earlier) on the planners' time-horizon in a socialist economy. This can be formally expressed



as the distance between the present year, and the year the total output of which is to be maximised.)

As the line WA is extended we are making the time horizon infinitely long. In Figure 4.2, as the planners' time-horizon becomes shorter, the point of the solution

Figure 4.2: Choice of Technique in Wicksell (Production Function) Model



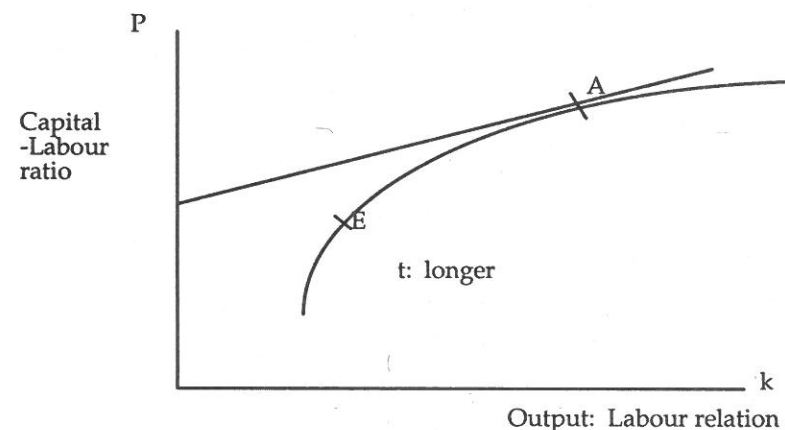
- Point A Dobb's maximum growth criterion applied.
- Point B Solution under maximum immediate output criterion.
- Point C Solution under maximum immediate employment criterion.

using the P curve moves from A to the left and downward. Point B is an extreme case in which the time horizon becomes zero-year.

Dobb in the *Essay* (1960) mentions what he calls the Communist China case. This is where surpluses accrue quickly and are immediately re-invested (eg by choosing projects with shorter gestation periods). There could be, concedes Dobb, a compound effect which would also lead to use of a maximum growth criterion. However, we should note that the compound effect is significant as a criterion only when the time horizon of socialist planners is relatively short. The solution in this case is given on Figure 4.3 by the range between points E and A. Point E corresponds to the case where the time horizon is very short and point A represents the point on the Wicksellian-type production function where planners' time horizon is infinity. This corresponds to the solution in the case of the simple maximum growth criterion being used.

With the progress of capital accumulation, more available investment resources should become available to the planner - the time horizon of the planner becomes longer, and his discount-rate (whether actual or shadow) will be smaller. Hence, even

Figure 4.3: Choice of Technique and Time Horizon



under the condition of a given objectives function, the optimum point may move from E to A. (Figure 4.3) or B to A (Figure 4.2).

### Notes

1. This has come to be known as the Dobb-Sen analysis of choice to technique. Usually the apparatus is applied to the choice between labour-using and labour-saving technique in Department II. In chapter 2 of A. K. Sen's *Choice of Technique* he assumes an initial investment fund exists in the sector. In his Chapter 3 this had to be changed to an investment flow. Dobb never made this assumption. There are also echoes here of the influential model of G. A. Feldman, developed in the USSR in the late 1920s, discussed in the previous chapter.
2. This was the key to the final chapter of the 1960 *Essay*. In a subsequent article in the journal *Kyklos* (1961), Dobb tried to demonstrate that this way of deriving the category "S" as an element in the price of both sectors would amount to the same thing as Novozhilov's  $r$  (in his  $rK$  + prime cost - price derived from the marginal coefficient of effectiveness of investment) - provided, that is, that  $r$  was included in the price paid to the enterprises.

### References

- Bauer, T., 1978, "Investment Cycles in Planned Economies," *ACTA Oeconomica*, Vol. 21.
- Dahlstedt, R., 1979, "Cyclical Fluctuations under Central Planning," *Economics of Planning*, Vol. 15.
- Dobb, M. H., 1930, *Russian Economic Development*.
- \_\_\_\_\_, 1932, *On Marxism Today*, Hogarth Press.
- \_\_\_\_\_, 1947, *Soviet Economic Development Since 1917*.
- \_\_\_\_\_, 1948, "Marxism and the Social Sciences," *The Modern Quarterly*, Vol. 3, No. 1.
- \_\_\_\_\_, 1951, "Some Aspects of Economic Development," Delhi School.

- \_\_\_\_\_, 1955, *On Economic Theory and Socialism*, Routledge.
- \_\_\_\_\_, 1960a, "Operational Aspects of Soviet Economy," *Stats-Ökonomisk Tidskrift*, December.
- \_\_\_\_\_, 1960b, *An Essay on Economic Growth and Planning*, Routledge.
- \_\_\_\_\_, 1961a, "Some Problems in the Theory of Growth and Planning," *Kyklos*, 14/2.
- \_\_\_\_\_, 1961b, "Economic Reforms in Eastern Europe," *Labour Monthly*.
- \_\_\_\_\_, 1963, *Economic Growth and Underdeveloped Countries* Lawrence and Wishart.
- \_\_\_\_\_, 1967, *Papers on Capitalism, Development and Planning*.
- \_\_\_\_\_, 1969, *The Soviet Economic Discussions of the 1920s*, Annali, Italy.
- \_\_\_\_\_, 1976, "Commodity Production Under Socialism," *Socialist Europe*, No. 1.
- Domar, E. D., 1957, *Essays on Economic Growth and Planning*, Harvard.
- Haddad, L. M., 1994, "Transition from Planned to Market economies - some common fallacies," Paper at Journal of Contemporary Asia Conference, 19 Jan. 1994.
- Hagemann, H. and Kurz, H., forthcoming, 1994, *Political Economics in Retrospect*.
- Halevi, J., 1993, *Structural Models of Development and Under-Development* (forthcoming in H. Hagemann and D. Kurz).
- Hayter, T., 1960, *Aid As Imperialism*, Penguin.
- Lewis, P., 1984, (ed) *Eastern Europe: Political Crisis and Legitimation*, Croom-Helm.
- Lowe, A., 1956, "A Structural Model of Production," *Social Research*.
- Maruyama, N., 1983, "The Investment Cycle in China," *China Newsletter* 1983.
- McFarlane, B.J., 1984, "Political Crisis and East European Economic Reforms," in Lewis 1984.
- Pasinetti, L. L., 1981, *Structural Change and Economic Growth*, C.U.P., Cambridge.
- Smith, J., 1992, "Maurice Dobb Archive," Trinity College Library, Cambridge.

## Comment

### Debesh Bhattacharya

Bruce McFarlane's sympathetic treatment of Dobb is interesting because he, unlike many contemporary Left, refuses to blame Dobb for failing to foresee the collapse of the Eastern European regimes generally and especially the Soviet Union. I am mainly in agreement with most of McFarlane's observation on Dobb. The major disagreement arises in the field of technological progress and the choice of techniques as advocated by Dobb and Sen.<sup>1</sup>

Broadly defined, technological progress includes all the ways in which advances of knowledge promote economic development. It comprises all the productivity benefits of increased education, product innovations attributable to research, and improvements in managerial efficiency.

Dobb, like most economists, saw technological progress in a narrow sense. To him, as to them, invention, changes in relative factor prices, and opportunities for mechanisation due to output expansion are the main factors responsible for technological progress. The contribution of a better educated stock of labour was subordinate: the productivity benefits of increased education and skill attainment, and increased research and development effort were not considered significant components of technological progress.

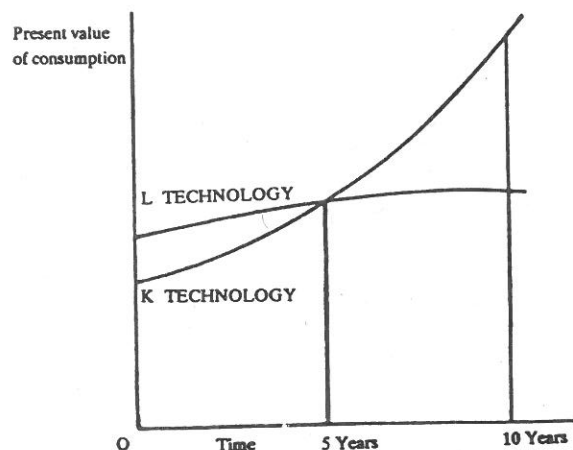
In a narrow sense, technological progress refers to the introduction of new or improved processes, which require fewer or cheaper inputs per unit of output, and of new or improved products; increased mechanisation and automation exemplify the former, plastics and computers the latter. In this sense, there may be either "process" or "product" innovation. The type of technical progress where fewer or cheaper inputs are needed per unit of output of a given product is called process innovation. This process innovation takes place because of a change in the nature of inputs such as the introduction of new capital goods, new labour or management skills. Product innovation refers to the introduction of new products, that is, the products with which the population is not yet familiar.

It is necessary to analyse whether there is any case for capital-intensive technology in the initial stages of development. Orthodox economists have argued that the choice of technology will differ according to the principal objectives of a country. If the choice is constrained by the objective of maximisation of either current output or employment, labour-intensive technology might be the recommended path. On the other hand, if the objectives of a country are either (i) maximisation of the rate of growth of output or employment or (ii) maximisation of output or employment over a period of time, capital-intensive technology is the most suitable technology even for developing countries. The reason is that the choice of capital-intensive technology will increase the proportion of income going to profits and decrease the proportion going to wages, with the result that saving and re-investment will be larger in such technology. Dobb and Sen

This Dobb-Sen analyses on the choice of technology can be criticised in a number of ways.



Figure 4.5: Consumption and its Relationship with K and L Technologies



First, in earlier research<sup>3</sup> I have found that in many countries the increase in output per worker is less than proportional to the increase in capital intensity. In India and Japan, the data indicated that the amount of profit per unit of capital was no smaller with less capital-intensive methods, implying that the rate of reinvestment in the less capital-intensive technologies may not be lower. In addition, the statistics, clearly showed that the operating profit, net profit, the savings rate and the re-investment rate per unit of capital in the manufacturing industries in India and Japan were not lower for less capital-intensive technologies while generating larger employment and income and no less re-investment.

Secondly, it is incorrect to assume that workers do not save and that capitalists always re-invest their profits. Given the right kind of institutions, for example, provident funds and super-annuation for the workers, aggregate savings of a country may be higher with labour-intensive technology and could be used as a source of productive investment. Moreover, because of the international demonstration effect in the consumption habits of the capitalists in developing countries, profits may increase imports of conspicuous luxury goods for consumption rather than re-investment.

Another argument for the use of capital-intensive technology has been that it economises the use of scarce managerial personnel in developing countries. However a contemporary ECAFE Report<sup>4</sup> shows that capital-intensive processes do not necessarily economise in the use of managerial personnel and that the output/management ratio is not significantly correlated with the capital intensity.

Fourthly, mainstream economists sometimes argue that because of the longer life of capital equipment for capital-intensive technology, there is a capital and foreign

exchange saving in the long run. My own research, based on Japan and India, shows that the cost of annual fixed capital replacement per unit of output was larger in the capital-intensive technologies than the labour-intensive ones. For developing countries, most highly capital-intensive technology is imported, while the labour-intensive technology saves scarce foreign exchange since it can be evolved domestically.

Fifth, consumption is not unproductive in developing countries in the initial stages of development characterised by malnutrition among the workers. In these circumstances, extra consumption improves health and provides extra energy for work effort; hence workers may get the benefits of extra consumption by becoming better productive agents for economic development.

Sixth, the present generation is likely to be the poorest in developing countries. hence, on equity grounds, it is not fair to ask the present poorest generation to accept all the sacrifices of their present consumption so that future, more prosperous generations derive the benefits.

Seventh, in developing countries, there is a temptation to introduce capital-intensive technology beyond the point warranted by existing conditions and economic considerations. These countries, in their desire to advance quickly, are very anxious to import modern techniques from developed countries. Since developed countries are relatively well supplied with capital but suffer from labour shortage, their production technology tends to be capital-intensive. There is a danger that the poor countries, even though they have limited supplies of capital and a surplus of labour in most cases, will identify progress with capital-intensive technology. The ruling elites of developing countries are influenced by developed countries and are inclined to think in similar terms. In the circumstances, the most powerful factor holding up labour-intensive technologies lies in the socio-political structure of the economy. Furthermore when there is an (unholy) alliance between the domestic ruling elites, transnational corporations and other foreign business interests, there is little incentive to develop appropriate technologies.

Eighth, transnational corporations usually prefer to extend existing production methods which may not be appropriate to conditions in developing countries. Similarly, most technologies in these countries are initially based largely on equipment and "know-how" imported from developed countries and local capitalists hesitate to take up untried technology coming from abroad. On the supply side there may be few scientists, engineers and technologists who can innovate during the early stage of industrialisation.

Further, in some developing countries, unnecessarily high capital-intensive technology may be the result of market distortions by the host governments when they exempt imported capital goods from duty, and when they grant favourable tax treatment on fixed investments carried out by transnational corporations. These policies encourage the capitalists of these countries to use technologies that are more capital intensive than they would if exchange values and interest rates were at their real market levels.<sup>5</sup>

Tenth, the case for capital-intensive technology in developing countries is weaker than Kaldor argues. It is wrong to assume that most sophisticated technology, transplanted into an unsophisticated environment, will be fully utilised. Idle capacity is a noticeable feature of industrialisation with capital-intensive technology in developing countries. Finally, Dobb-Sen analyses of the role of technological progress are inadequate because they assume that technology is neutral. However, it is never neutral or above the class struggle. In a class society, capitalists determine not only the rates at which material capital (that is, capital contributed by past labour) and labour are exploited but also the mode of exploitation, i.e. technology.

The Marxian theory of "class struggle" is relevant to the problems of technology in developing countries. A large body of unemployed reserve army of labour keeps wages down to a subsistence rate. If workers organise for higher wages, capitalists counter by replacing labour with machinery. Technology becomes a tool used by the capitalist class to maintain their privileged position and to hold down other groups. Moreover, technology carries the mode of production as well as the code of the socio-economic system in which it was produced and survived and tries to replicate that mode of production and socio-economic system. Thus borrowing technology from the developed world by developing countries leads to the imposition of a dependent capitalistic economic system.

Borrowing technology from developed countries will not benefit developing countries, since technological dependence leads to underdevelopment and lack of self-reliance. They do not suggest that developing countries should avoid capital-intensive technologies developed by developed countries altogether. In an Afro-Asian or Latin American country, given its present state of technological knowledge, capital-intensive technologies should be used only when they are the only effective means of exploiting a country's natural resources. Rather, a policy of "Walking on Two Legs," which emphasises small scale labour-intensive methods of production within the framework of a long-term trend towards large scale capital-intensive techniques is considered the appropriate solution to the economic problems of developing countries. It is a pity that Dobb did not fully grasp the complexity of this problem for developing countries.

## Notes

1. That is, in particular, M. Dobb, *An Essay on Economic Growth and Planning*, London Routledge and Kegan Paul, 1961; M. Dobb, *Welfare Economics and the Economics of Socialism, Towards a Commonsense Critique*, Cambridge University Press, 1969; A. K. Sen, *Choice of Techniques, An Aspect of the Theory of Planned Economic Development*, third edition, Oxford Basil Blackwell, 1968.
2. Kaldor's contributions in E. A. G. Robinson (ed.), *Industrialisation in Developing Countries*, London, Macmillan, 1965, pp. 28-29.
3. See D. Bhattacharya, *The Role of Technological Progress in Indian Economic Development*, Calcutta, The World Press, 1975, pp. 64-66.
4. *Ibid.*, p. 66.
5. D. Bhattacharya, *The Political Economy of Development*, Academic Publishers, 1993, Ch. 6.

## Chapter 5

# The Disjunction Between Decision-Making and Information Flows: The Case of the Former Planned Economies

L. Haddad

The performance of an economy is a product of the physical and social environment, the institutions and the decisions and policies made by individuals, organizations and governments. However, since institutions and, to a lesser extent, the environment are the result of past decisions, the development of an economy is mainly a function of the quality of its decision-making system. It follows that if the decision-making system is fundamentally flawed, the performance of the economy will be sub-optimal or worse.

An important aspect of the quality of the decision-making system is the quantity and quality of information flows. Needless to say, information is a crucial ingredient of decision-making. If the information is inaccurate or incomplete the decisions will be fallible. Clearly, the relationship between the decision-making and information systems is a particularly intimate one. The two are so closely bound together that they are often treated as parts of the same process. However, prior to the emergence of the "bounded rationality" literature (Simon 1979) and the economics of information (Stigler 1961), it was generally assumed that economic agents (decision-makers) were well-informed about their circumstances and that they knew the consequences of their own choices. It was also assumed they possessed in full the informational capacity, both the computational capacity and the capacity to assimilate knowledge. Under these assumptions economic decision-making became a relatively trivial exercise of balancing the known costs (disutilities) against the known benefits (utilities). The real problems and complexity of economic decision-making were swept under the carpet, and the fundamental interrelationships between information and decision-making systems were obscured.

It is now widely recognised that many of the theoretical and practical problems in economics turn on the questions of imperfect and asymmetric information. Indeed, informational problems have become the focal point of theoretical inquiry. A well-functioning economic system, whether centrally-planned or market-oriented, depends a good deal on the quantity and quality of information flows, especially on the generation and productive exploitation of new information. The information structure