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**SOVIET INDUSTRIALISATION :
THE DEBATE OF THE TWENTIES**

M. PHIL. DISSERTATION

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PUNE 411004**

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**SOVIET INDUSTRIALISATION :
THE DEBATE OF THE TWENTIES**

**A DISSERTATION SUBMITTED TO THE
UNIVERSITY OF POONA IN PARTIAL
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BY

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PREFACE

True debates do not end; they merely fade away as the issues that gave rise to them recede into the past. Since the 1950s, newly independent underdeveloped countries have emerged, who cherish the aspiration of bettering their lot. They have resurrected the theses of the role of the state, accelerated industrialisation and planning in the attempt to consciously determine their future. In this context, the debate of the 1920s which preceded the Soviet plunge into industrialisation assumes a new significance.

There can be no universal pattern or strategy for the development of particular countries, divorced from whatever peculiar circumstance they may find themselves in, and divested of the specific material and cultural environment of the nations. It would be naive to extrapolate the development pattern of one country and superimpose it upon another which faces different conditions, has different institutions, a different resource base and a different ethos. Past experiences can, nonetheless, provide a wider perspective and shed light on the nature and potentials of an economy. It enhances understanding.

This work has relied mainly upon sources available in English. The contributions of various personalities who participated in the debate have been inaccessible. We have,

thus, concentrated on the material available.

My thanks go first to the Almighty that this work is over. Here, on Earth, Prof. (Dr.) K. K. Dasgupta has been most patient and enlightening in initiating me into this new (to me) field of study, and in providing the wider and different perspective of Political Economy. His influence upon my "thinking process" has been considerable. His kindness and consideration have led me to reassert my faith in humanity and have gone a long way in the completion of this work.

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Finally, I owe a deep debt of gratitude to the members of the Indian School of Political Economy and to my various friends who provided encouragement, books, went through the drafts and helped in translation work. All these associations I shall cherish over a life time.

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CHAPTER I

INTRODUCTION

"Enterprises of great pitch and moment"

The Soviet Industrialisation Debate was the first conscious attempt to lead an entire country on to the path of relentless growth, industrialisation and modernisation, with a determination and sacrifice never before and unequalled since. Its objective was to industrialise and to build socialism in a predominantly agricultural, backward country which had a weakly developed heavy industry.

Soviet Russia faced a peculiar situation in the twenties. The Revolution of November 7, 1917, (NS), had installed a proletarian regime, committed to building socialism, in a war shattered country where the social formation was predominantly precapitalist. Socialism can be built (1) on the basis of industrialisation which creates relations of production that are conducive to socialism and (2) on the basis of the collective will of a populace committed to its ideals. These preconditions did not exist in the Soviet economy, and Lenin envisaged that they should be created.¹ The first assault on to socialism had ended in disaster. The 1920s represented a period of transition, "marking time" before the final onslaught on to socialism. During this

breathing space a restoration of the economy to prewar levels was achieved. Its reconstruction on socialist lines, however, was a more formidable task. It was during this transitional phase that a debate took place to industrialise the country, thus facilitating its transition on to socialism. The express objective was of "catching up and surpassing the highest productive indices of capitalism".²

The long run aims, goals and aspirations were in harmonious concorde - the endeavour to build socialism was unanimous so was the subscription to state ownership of the means of production; all arguments were substantiated within the Marxian scheme of analysis; all participants recognised that all out industrialisation was a "synonym for economic progress" and an imperative need for the establishment of socialist relations of production; all agreed that without industrialisation "we will all perish together as an independent nation". Yet, they arrived at diametrically opposite conclusions as to how to go about achieving these ends, goals and aspirations; the discord was regarding the strategy to be pursued to best achieve a transition to socialism. This constituted the debate.

Strategies³ are essentially ways of using and mobilising resources in order to achieve certain long run objectives. The overriding aim of the strategies for development mooted during the debate was to industrialise the country and to build socialism. The strategies, however, differed

on issues regarding -

1) The rate of investment in the country whether it should be high, and place a great strain on productive resources, yielding productivity out of which new resources could be found, or whether the rate of investment should be slow. This would "involve a smaller annual investment programme, at the expense of making future years less rich in productivity than under the alternative and more heroic method they could have been."⁴

ii) The specific development pattern and order to be followed - i.e. whether investment should first be directed towards agriculture, thereby increasing the food and raw material base for subsequent industrialisation, or whether investment priorities be granted to the industrial sector from the very beginning. Within industry the question was whether to grant priority to heavy industry producing capital goods or to light consumer goods industry. Heavy industry formed a crucial and enduring bottleneck to the rate of total construction in the economy. Investments, therein, would enable the rate of total construction to be increased. On the other hand granting priority to light industry would yield a quick output stream of items that could immediately satisfy consumer demand, "tempt more agricultural supplies from the peasantry and expand the trade turnover between town and village".

iii) The method of mobilising resources for development (i.e. whether resort should be had to forced or voluntary savings; who should bear the burden of development etc.).

Each strategy, moreover, explicitly or implicitly incorporated the vision of its protagonist regarding the present and future relations between (1) the Soviet state and the peasant masses, and between (2) large scale socialised industry and petty production. Visions regarding these relations were tempered by the ideological leanings of the protagonists and the manner in which they conceived the future, as well as their ideas regarding the possibility or impossibility of building socialism in one country.

The left strategies were inclined towards establishing the "dictatorship of industry" in order to maintain the "dictatorship of the proletariat". These involved the slow but sure expropriation of the presocialist forms and the establishment of socialism on the basis of large scale industrialisation and urbanisation.

The right strategies were based on the premise that the economy could progress only on the basis of a peasant worker alliance. This was inviolable. Their strategies involved the gradualistic transformation of society on to socialist lines by demonstration and education.

We shall, in what follows, present the background and the setting of the debate-war communism, its abandonment and the resultant new economic policy (NEP); the interpretations

of NEP and the problems it gave rise to in the endeavour to reconstruct the economy on socialist lines; the problems a capital scarce, backward, predominantly agrarian economy (and society) would face in a concerted effort towards implementing large scale investments to ensure rapid industrialisation; and, finally, we try to capture the essence of the solutions offered in a thesis, antithesis, synthesis fashion, emphasizing the strategies mooted, rather than dwelling upon personalities.

Shanin advocated a sectoral imbalance in favour of agriculture and light industry in an essentially free trade setting - what Rostow later christened "the textiles first" policy. This would be the natural course of development of an economy. The inadequacy of such a policy to a country, bent by all means upon catching up with a determination and will, as well as its economic shortcomings lead us on to Preobrazensky's diametrically opposed programme for "super industrialisation" and the means he advocated to achieve such a policy. Interdependencies, however, were on the forefront of Bukharin's thought, and he mooted a strategy for balanced growth, rather than assign a preponderance to any one sector. Rationalisation, efficiency and the cooperation of the peasantry, together, formed the pivot around which his strategy revolved (and evolved).

Finally we end with some views of Fel'dman and Strisulin. Fel'dman's model of growth has a place of its own in growth

economics. The dramatic implications of his model could not, but, have influenced the planners when they actually formulated the celebrated first five year plan. Strizulin has been such neglected in the literature available in English. He, however, was the architect of the first five year plan. His views, more than any one else's, influenced the course the Soviet economy actually embarked upon. Ergo, with his views, we close our work.

Action followed the words. It was characterised, in the Soviet Union, by a rate of accumulation with few equals; an overwhelming emphasis on the producer goods sector; the extraction of a surplus from agriculture by its outright collectivisation, 'red in tooth and claw'; and, by a systematic planning of the national economy.

The awareness of the nature and potentialities of an economy, and of the alternatives open to it, can enable the planners to marshall the economy along the path they desire it to tread. Historical experiences of beaten paths and stumbling blocks cannot, but, enhance awareness, and, where called for, shed kindly light on to gloomy pictures. This is a task incumbent upon history. In the true tradition of Tacitus, we subject our enquiry, "since ira et studio",⁵ on to some of the economic aspects of the debate of the twenties.

CHAPTER II

BACKGROUND TO THE DEBATE

2.1 War Communism 1918-1921

2.1.1 The treaty of Brest Litovsk, March 3, 1918, four months after the revolution of November 1917 (New Style), brought about a cessation of hostilities with the Germans and ended Russian participation in the First World War.

However, economic breakdown, a refusal of managers to cooperate, and "sheer elemental chaos" followed in the wake of the revolution. The onerous peace of Brest - Litovsk was shattered by a vast civil war, greatly exacerbated by allied intervention.¹

The dictates of circumstances as well as ideological fervour prompted a series of sweeping decrees.² These decrees

- a) Abolished all economic property,
- b) Nationalised land and ordered its distribution to those who worked it, irrespective of sex,
- c) Nationalised industries and banks,
- d) Demanded a forced requisitioning of agricultural surpluses.

These decrees culminated in a period of extreme communization, alluded to in literature as war communism.

On the ideological level war communism may have been an attempt to transform Russian society directly into the classless communist ideal; on the practical plane, however, it was a measure of expediency attempting to establish thoroughgoing state control over industry and trade to meet the prevalent crisis, and to channel resources, through coercion, into the civil war.

These attempts coalesced to yield the following features characterising war communism:

- a) There was a growing centralisation and concentration of economic power and authority on the organisational level.
- b) An attempted substitution of large for small units of production to facilitate the concentration of authority and administrative decisions.
- c) A sporadically enforced ban on private trade.
- d) An attempted elimination of money from state dealings resulting in "a flight from the commercial and monetary forms of distribution". Thus necessitating
- e) A forced requisitioning of peasant surpluses.
- f) The introduction of rationing of basic goods and services either free of charge or at fixed prices.
- g) Production for direct use rather than for a market.

2.1.2

The civil war and the shattered condition of the

economy laid claims on real material resources. The armies had to be fed, the workers too, and the wheels of essential industries had to be kept turning. In the absence of a tax base, resort was had to the printing press to garner resources. The increased claims by the state on the given resources, as well as the cumulative monetary expansion necessary to ensure the same, led to a rampant inflation, which in October 1920, reduced the purchasing power of the rouble to less than one per cent of its 1917 value.³

Apart from having the effect of expropriating the former monied classes of their money holdings, the hyperinflation affected the peasantry as a class on the relative scale. In so far as they hoarded money, and in so far as there was a delay in the sale of grain and the purchase of industrial produce, the peasantry suffered an erosion in their purchasing power. By far the larger problem, however, was the deterioration in the terms of trade between the city and the countryside. The state grain monopoly prevented an unbridled increase in grain prices, commensurate with the galloping price level. In 1919, the ratio of exchange between a pood of grain and one arshin of textiles was 1:3. In 1920, it was 1:0.85.⁴

The adverse terms of trade turned the peasantry recalcitrant. The land decree of November 8, 1917 gave rise to a peasantry quite out of step with the proletarian revolution. Agricultural production became atomistic and production

decisions came to reside in the hands of the peasants. In the absence of industrial goods they refused to part with their surpluses. Market relations broke down and the government was unable to obtain the resources it needed by normal means, even by monetary expansion. The imperative needs of the armies and the cities had to be met. This was done by a policy of forced requisitioning of agricultural produce over and above ill defined subsistence needs and seed requirements. The commissariat of supplies - the Narcomprod - collected this produce and allocated it between the army, industry and distribution points for workers rations.

And this relationship with the peasantry, leading to the extraction of grain surpluses "by methods other than monetary inducement" formed the essence of war communism.⁵

Its economic repercussion was, however, a severing of the market link between agriculture and industry. And this led to a rupture of the tenuous alliance between the peasantry and the industrial proletariat. The countryside refused to produce a surplus for surplus sake; without getting industrial output in exchange. Altruism is a rare trait. Love and duty, as in the case of Iago, come a poor second to ones "own peculiar ends". Thus it was that the agrarian policy of forced requisitioning of surpluses estranged the peasantry, left it bereft of incentive and zeal, and intilled, instead, a proclivity towards misdemeanour - (planting less, concealing actual sown area, restricting output, selling to outlawed

private traders, hoarding etc.) "Whereas in 1918, the main problem consisted in holding back of grain by the peasantry in preference to selling it against paper money, by 1920 it consisted at a halving of the sown area in Siberia...".⁶

Thus it was, that the harvest of 1920 was "little more than 2/5th of the average harvest of the pre war quinquennium."⁷

On the industrial front, "war communism may said to have begun with the decree of June 28, 1918, nationalising every important category of industry".⁸ The task of administering and organising what had been taken over was the burden of Vesenkha, the Glavki and the Gubsovnarkhozy.

Vesenkha or the Supreme Council of the National Economy had already been instituted in December 1917. It consisted of representatives of government, of trade unions, technical experts etc., and its function was to coordinate industry and to regulate nationalisation. The Glavki were sub departments of Vesenkha in charge of directing particular industries. The Gubsovnarkhozy were local bodies or provincial councils in charge of small scale enterprises which drew upon local resources and found local markets, as well as medium sized localised industries of national importance.

With the general rupture of market relations, decentralised autonomous decision making by enterprises became well nigh impossible. Centralisation of industry,

facilitating the administrative contracting of raw material supplies and output deliveries, was a natural concomitant of this rupture. This took place under the Glavki who, from the task of coordination of industry had graduated to their closer administrative control. Initially the Glavki were more or less independent, and had under their purview all orders, supplies and delivery schedules. As conditions deteriorated supplies became short, interdepartmental disproportions manifested themselves. Further concentration was called for, and the Glavki came to be subordinated to a supreme utilization commission attached to Vesenkha, whose function it was to coordinate interdepartmental supplies and allocations.

Wages were often in kind, and the Glavki received agricultural raw material and food stuffs from the Narcomprod and apportioned it amongst the factories subordinated to it. The Narcomprod in return obtained industrial output for distribution to the towns and villages.

The substitution of a 'natural' for a market economy makes it incumbent for the administrators to have a thorough knowledge of and control over the functioning of the economy; a knowledge of intra & inter sectoral relationships, raw material requirements, the local and regional resources base, production pattern and centres, consumption centres and pattern etc. These estimates, in the best of circumstances gang oft apley, are fraught with uncertainties and bring to

the fore various divergent trends, conflicting interests and muted antagonisms, previously cloaked by market relations. In the then prevalent situation, the results were catastrophic.

The Glavki possessed insufficient knowledge of requirements, storage, warehousing, receipts, deliveries of goods, inventories etc. Their directives to the Gubsovnarkhozy were greatly at variance with local conditions, leading to a protracted struggle between local and central bodies; and, Vesenkha itself 'completely failed to fill the proud role originally intended for it - an economic general staff surveying and coordinating all economic activities of state'.⁹

Bottlenecks mushroomed in the midst of administrative delays and the prevalent chaos. These were sought to be eliminated by 'shock tactics'. Industries impelled by imperative necessity were singled out and given top priority - material and organisational. Shock treatment, thus, became a method of establishing priorities amidst bottlenecks and general paucity of resources. It enabled chosen industries to surmount immediate difficulties and forge ahead. The word 'priority' however necessarily implies a cost. Immediate priorities, thus, were established at the cost of starving other industries of their supplies - and as Kritsman quaintly put it, a shock at the head often led to a tying up of the tail. The category of shock industries had perforce to be systematically widened - vitiating the very concept of shock.

The decline of industry was catastrophic. By 1919 industrial fuel consumption had shrunk to 40 per cent of the 1916 level; the number of blast furnaces in operation fell from 13 in 1918 to 5 in 1920; and the cast iron production plummeted to 0.3 million poods in 1920 from a level of 3.7 m.p. in 1918. Depopulation of the cities was, perhaps, the most revealing of the indices marking this decline. The population of Petrograd fell by 57.5 per cent and that of Moscow by 44.52 per cent.¹⁰

On the distribution front, rationing superseded private trade, which was abolished by a decree in November 1918. Commodity distribution was centralised and concentrated in the hands of state monopolies and monopsonies. The principle (in principle) of equal rationing to all simplified matters, no doubt, yet, demand estimates of the various consumption points were sadly lacking, even when there was something to distribute. Official channels failed pitifully in supplies of food stuffs and essential commodities. A black market flourished to such an extent that in April 1920 only 29 per cent of food was supplied through official channels." These were the objective conditions that obtained during this period.

2.1.3

Retrospective interpretations of war communism

speculate whether (1) the policy was taken up to effect the partial embodiment of the socialist ideal; to create, here on earth, a socialist utopia sans money, sans private property and sans private trade by means of a 'revolution from above'; to plunge a semi feudal country directly into socialism without going through the capitalist stage (2) or whether it was a response to the exigencies of war.

Paul Craig Roberts¹² lends support to the former view held by early western commentators that war communism was a product of the heady days of the revolution, an 'a priori product of theory' which came into conflict with reality and had to be abandoned in a retreat to capitalism.

No phenomenon, however, can be considered in isolation, divorced from its context and divested of elements that have brought it into being; least of all, policy matters. It is unlikely that the policy makers were blind to all but their illusions. Dobb and Carr, thus, contend that war communism was a response to the call of the time. It was fundamentally an "empirical creation..... as an improvisation in the face of economic scarcity and military urgency in conditions of exhausting civil war." The theoretical arguments of the Bolsheviks were "no more than flights of leftist fantasy".¹³ Carr buttresses this view point.

"The policies...arose not from any preconceived plan, but from the inability to solve problems of a backward

peasant agriculture... They were an expression of the fundamental difficulties attempting to run in double harness the anti-feudal revolution of a peasantry with petty bourgeois aspirations, and the anti bourgeois, anti capitalist revolution of a factory proletariat, and of coping with the conflict between town and country inherent in the attempt. These were the incompatibilities which eventually brought the revolt against war communism and destroyed it."¹⁴

As for Lenin, he dogmatically asserted that "war communism was thrust upon us by war and ruin. It was not, and could not be, a policy that corresponded to the economic task of the proletariat. It was a temporary measure."¹⁵

Yet his writings lend credence to both views, in as much as he considered the NEP as a highly undesirable "retreat". Here however one must note that Lenin had the supreme ability to embrace and drop theories as and how they suited him, and the ability to rationalise ex post his deeds by wonderfully conjured ones. Excessive debate on interpretations of war communism borders on conjecture.

Be that as it may, war communism certainly did succeed in garnering resources for the war, in saving the armies and cities from starvation, and in firmly planting the Bolshevik regime on the seat of power. As a long run policy forming the basis of socialist reconstruction, growth and development, however, it was fraught with economic and

political contradictions and incompatibilities; it could serve no more than a temporary expedient to ensure supplies.

With the severing of the market link between the producer and the consumer, and of the symbiotic tie up between agriculture and industry, the peasantry turned recalcitrant, industry plummeted and rationing proved woefully inadequate. The economy floundered without direction from either the planners or the market, leading antithetically to an anarchy the replacing system had envisaged to overcome. In this tension between continuity and change, the forces of continuity overwhelmed those of change and reasserted themselves. Amidst a cascading crisis of discontent, culminating in the Kronstadt revolt (March 1921), the policy of war communism was unanimously aborted. Things fell apart, and the anarchy let loose was sought to be contained by the New Economic Policy envisaged by Lenin.

2.2 The New Economic Policy

2.2.1

War communism was "an experiment in the first steps of the transition to socialism"¹⁶. It was an economic disaster. The historic tenth party conference signalled the end of war communism and heralded in the new economic policy (NEP), conceived of as an antidote to the excesses of war communism. NEP consisted of a series of measures evolving one from the

other. Born out of a necessity to increase agricultural production by offering inducements to the peasants, it evolved into a variable commercial policy, rehabilitating the market, fostering financial stability, establishing a mixed economy and leading to a revamping of the organisation of industry on lines more conducive to establish industry on a sound basis.

NEP may be considered a Thermidorian reaction to the debacle of war communism. In a momentous decision, marking a triumph of expediency over doctrine, Lenin steered the official policy on to diametrically opposite lines. In one sweep, the hitherto pursued strategy, "cherished concepts, scales of priorities and habits of thought"¹⁷ were thrown overboard in a sheer struggle for survival - a step backward, in order, later, to take two steps forward.

NEP assigned an important role to private initiative and incentive, and to the market:

"Those who achieve the best results...even by means of private capitalism, even without cooperatives without directly transforming capitalism into state capitalism, will do more for the cause of all Russian socialist construction than those who "ponder over" the purity of communism, draw up regulations, rules and instructions but do nothing practical to stimulate trade."¹⁸

Though retrograde to the ideological aspirations of the Soviets, NEP was expected to establish market links between agriculture and industry, and between the producer

and the consumer. "... the crux of the restoration of commercial transactions in the economy at large ... was to be the market relationship between agriculture and industry."¹⁹

The reestablishment of the link between agriculture and industry would facilitate a restoration of the economy. NEP, though "considered seriously and for a long time measured in years",²⁰ would be a period of transition, marking time, for the final assault on to socialism. The restoration, once achieved, would then provide the launching pad for socialist reconstruction.

2.2.2 Economic Organisation Under NEP

Agriculture

The heralding of NEP reflected a recognition on the part of the regime of the "correct policy" to be employed in order to obtain agricultural produce for the armies and for the state industry.

During "war communism...we took from the peasant all the surplus grain...(even that) part the peasant required for food...to meet the requirements of the army and to sustain the workers... It was not, and could not be a policy that corresponded to the economic tasks of the proletariat... The correct policy is to obtain grain in exchange for the manufactured goods the peasant requires..."²¹

However, given the conditions of the economy, the

state of industry, the changed parameters of income distribution and the new agrarian land relationships, it was not possible to supply manufactured goods for all the grain that was received. The idea, now, was to take a portion of the net produce of the peasant and leave the rest of the surplus with him, which he could exchange for manufactured products on the market.

Thus, to gain the economic and political cooperation of the peasantry, and to revive the exchange of products between town and country, the forced requisitioning of agricultural surpluses was abandoned in favour of an agricultural tax, assessed as a proportion of the net produce of the peasant family, over and above his subsistence needs.

"From now on, by decision of the all Russia Soviet Executive Committee and the Council of the Peoples Commissars, requisitioning is abolished and a tax in kind on agricultural products is introduced instead... After the tax has been paid, what remains with the peasant is left at his full disposal... Every peasant must now remember that the more land he plants, the greater will be the surplus of grain which will remain in his complete possession."²²

This tax in kind took into account the number of dependents in the family and was progressive in the sense that it was "graduated to fall more lightly on middle and poor peasants and on the farms of town workers".²³ This tax, as a proportion of produce, was later simplified into a

single tax assessed in money, and after 1923, was payable entirely in money. In 1923, the tax was assessed at about 10 per cent of the net produce of the peasant holding, which amounted to less than one third of the "total peasant obligations before the war".

This tax in kind, or "prodnalog" was the initial and cardinal measure of NEP. And it was on the basis of this, that the peasant was induced to produce and free to sell a determined portion of his output on the market, and obtain in return products of manufacture.

It thus "paid" the peasant to incur extra effort to increase his produce, as he obtained for himself a fixed proportion thereof, and could thus enlarge his share. - A supreme example of Mandiville's "transmutation of private vice to public benefit".

This step, (introduction of the tax in place of requisitioning), led logically to a series of other steps, which followed (1) as a necessary consequence of the first step and (2) were, as well, a precondition to its effective inception. Prodnalog, thus, was the seminal seed responsible for clearing the path leading to a "transformation of the existing institutions from instruments of compulsion" into instruments of a new policy based upon incentives, initiative and enterprise.²⁴

Legalisation of private trade followed as a logical corollary of the introduction of the tax in kind. If the

peasants were to retain for themselves, and were able to dispose off a portion of their surpluses, it, ipso facto, implied the existence of a market and (on the legal front), a restoration of the right to trade. Money commodity relationships were, thus, reintroduced and this reestablished the link between the producer and the consumer.

An unpremeditated consequence of this sequence was the stabilisation of the value of the rouble. The recrudescence of money commodity relationships made it imperative, if trade was to take place, for a standard of value and a standard of deferred payments. The grandiose system of barter had failed, and, if communists had to "learn to trade", the medium quickening trade had to be something other than coloured paper. Attempts were made to stabilise the currency. The State Bank was reopened on November 16, 1921, to complement the restoration of the market. Its express purpose was to "aid the development of industry, agriculture and trade by means of credits and other banking operations".²⁵ The State Bank, in order to protect its capital, deemed it necessary to conduct its operations in terms of gold; repayments had to be made in paper roubles equivalent to the value of the loan in gold at the time of the issue.

With the reestablishment of money commodity relationships, and the fostering of private trade, the transaction demand for money increased considerably. This, coupled with two devaluations of the rouble, one in 1921 and the

other in 1922, applied a brake to the rampant inflation that was prevailing. On July 25, 1922, the Sovnarkom authorised the issue of a new monetary unit - the Chevornetz. This was issued by the Gosbank in November 1922. It had a partial gold cover, but was not convertible into gold. In 1923-24, the budget was balanced by levying taxes, on agriculture, on state enterprises, excise etc. These measures, together, led to a stabilisation of the currency. The momentous task of stabilising the currency and of the issue of chevornet was handled by Sokol'nikov, the Commissair of finance. Lenin, of course, did the rationalising and asserted that when the International Revolution would occur, the proletariat regimes would pave street toilets with gold - in the meanwhile, however, gold had a role to play, and the stabilisation of the currency was essential to an economy in transition.²⁶

Industry

Though NEP was basically a policy "for" agriculture, profound changes took place in industrial organisation in consonance with the implications of the new agrarian policy. In agriculture, private initiative was emphasised, requisitioning abandoned and the market given a prominence once again as the instrument for the exchange of goods. In industry, managerial initiative and principles of "commercial accounting" were accorded prominence, and were to be the basis of the reorganisation of the industrial structure. The

commanding heights of the economy (Fuel, Transport, Banks, Foreign Trade etc.) remained linked to the state budget, dependent upon centralised allocation of state supplies and directives. The other nationalised large scale industries, however, were granted considerable decision making, financial and commercial autonomy. They were reorganised as "trusts" under the aegis of Vesenkha, were operated by state managers and were permitted to make their own contracts for the purchase of raw materials and supplies, and for the disposal of their output. Small scale private manufacture was allowed, and small enterprises (employing less than 20 persons) were either denationalised or leased out. Thus, within constraints, initiative and the market, were assigned important roles.

The decrees on the industrial front were passed in May 1921, which (1) denationalised enterprises nationalised after November 29, 1920, and (2) which sought to catalyse small scale industries through private initiative.

Small scale industries could be revived almost immediately at a small cost, and would, moreover, provide the desired vector of output (objects of popular consumption and every day peasant use). Their revival would quicken industry in general:

"In order, seriously and systematically, to pass over to the revival of large scale industry, we need a revival of small industry."²⁷

Enactments were carried out to this effect and in the following order:

'First came "support of small and medium undertakings, private and cooperative"; secondly, "permission to lease state enterprises to private persons, cooperatives, artels and associations"; thirdly "a partial review of the programmes of big industry in the strengthening of the production of objects of popular consumption and every day peasant use"; and lastly, "a broadening of the independence and initiative of every large scale enterprise in the matter of disposing of its financial and material resources."²⁸

Though, on first sight, the recognition of private ownership and denationalisation may have appeared to be the most profound changes, the larger economic impact, by far, resulted from changes in the organisation of large scale enterprises. In this reorganisation "two principles were simultaneously recognised - one of centralisation, the other of decentralisation".²⁹

1) Small and dispersed enterprises belonging to the same branch of production were concentrated into organisations known as "trusts".

2) These trusts were freed from dependence upon centralised supply and finance, and thus from direct control

by the Glavki. They eventually obtained the full right over decisions appertenant to the purchase of raw materials and the disposal of their own output, and became responsible for their own profit and loss accounts.

Legal status was conferred upon these trusts by a decree on April 10, 1923:

"State trusts are state industrial enterprises, to which the state accords independence in the conduct of their operations in accordance with the statute laid down for each enterprise, and which operate on principles of commercial accounting with the object of earning a profit."³⁰

Thus, the trusts would enter into contracts with other trusts or organisations as trustees of the state. Vesenkha reserved the right over the formation of trusts, determining their allocation of profit, the right of liquidating the trusts, as well as the right of terminating the appointment of the members of the trust board. It was on the basis of these autonomous, albeit controlled, trusts that the policy of industrial decentralisation of NEP rested.

The move separating the trusts from Vesenkha and its affiliate bodies had its corollary. It was the change over in industry to the principle of commercial accounting or "Khozraschet", making the trusts responsible for their own profit and loss accounts, and emphasizing the element of profit making. This measure was imperative. If agriculture was to be carried out on private capitalist lines, then,

within the same economy, the state sector could not operate oblivious of commercial principles, and of the market. The "Khozraschet", thus, heralded a transition of state industry to commercial principles. And Carr maintains that "the separation of large nationalised industries from direct state management, and its operation on commercial principles was the counterpart of the encouragement given to all forms of small industry, non-nationalised or leased, and formed the cornerstone of the industrial policies of the new economic order."³¹

Distribution

Where distribution was concerned, wholesale trade remained predominantly in state hands. The status and function of the cooperatives was redefined, and they were granted complete commercial autonomy (October 26, 1921). They now graduated from distributive agents of the state to independent contractors.

Private retail trade had never quite been snuffed out; even during the period of war communism, the famous Sukharevka market in Moscow was shrugged at and tolerated by the authorities. Under the new order, private trade revived with a gusto, and there emerged a new class of merchants characterised as Nepsen. They came to dominate retail trade both in, and between towns and villages, filling the lacunae

(large) left by the state cooperatives. Market links were established. Trade began to flow. The margins were high. The Nepmen made hay, and soon became the objects of envy and hatred (and later alarm). Thus it was that private trade constituted 78 per cent of all retail trade in 1922-23.³² The share of the private sector in national income rose to 54.1 per cent in 1925-26 and then gradually receded.

Table 2.1: Share of the Private Sector in National Income

	25- 26	26- 27	27- 28	28- 29	29- 30	30- 31	31- 32
Socialised Sector	45.9	48.7	52.7	61.0	72.2	81.5	90.7
Private Sector	54.1	51.1	47.3	39.0	27.8	18.5	9.3

Source: Nove, A. *An Economic History of the U.S.S.R.*, London, 1969.

These were essentially the lineaments of the economic organisation under NEP. During this period the economy staged a dramatic recovery.

Table 2.2: Production Indices (1913 = 100)

Year	Industry	Agriculture	Transport
1913	100	100	100
1920	20	64	22
1928	102	118	106

Source: Gregory and Stuart.

Table 2.3: Production Figures

	1913	1920	1921	1922	1923	1924	1925	1926
Industrial production (million 1926 roubles)	10,251	1,410	2,004	2,619	4,005	4,660	7,739	11,083
Coal (million tonnes)	2.9	8.7	8.9	9.5	13.7	16.1	18.1	27.6
Electricity (million kwhs)	1,945	-	520	775	1,146	1,562	2,925	3,508
Pig iron (000 tonnes)	4,216	-	116	188	309	755	1,535	2,441
Steel (000 tonnes)	4,231	-	183	392	709	1,140	2,135	3,141
Cotton fabric (million metres)	2,582	-	105	349	691	963	1,688	2,286
Sown area (million hects)	150.0	-	90.3	77.7	91.7	98.1	104.3	110.3
Grain harvest (million tonnes)	80.1	40.1	37.6	50.3	56.6	51.4	72.5	76.8
Rail freight (million tonnes)	132.4	-	39.4	39.9	58.0	67.5	83.4	-

Source: A. Nowe. An Economic History of the U.S.S.R., London, 1969.

2.3 The Issues Involved

2.3.1 Interpretations of NEP

NEP, coming as it did, in the heels of war communism, must be seen in relation to it.³³ Under war communism, ideology as well as the dictates of circumstance, led to an abrupt change in production relations. The changed production relations were those one would expect under socialism; at the same time they enabled the economy to appropriate the much needed surplus for the civil war.

Now, one of the fundamental laws of socialism is that the production relations in society should be in harmony with the level of advancement of productive forces. Socialism relates to an advanced stage of production relations. (This is the classical formulation). A socialist stage of society, thus, demands an advanced stage of productive forces; in fact, more advanced than those under capitalism. (A logical extension of the classical formulation). The revolution installed in Russia a proletariat regime committed to building socialism in a country where the social and economic formation was predominantly precapitalist. Now, though war communism could be regarded more as an expedient measure, rather than a praxis of fullfledged socialist relations, it, nonetheless, imposed production and organisational relations which were not in harmony with the level of advancement of productive forces. In other words, the productive forces in

the Soviet Union, (1918-1921), well not sufficiently developed to allow for socialism. The legal enforcement of socialist relations in a primitive and moreover war shattered economy could not, but, lead to a crisis. This was realised by Lenin, who termed the revolution a proletarian one and not a socialist revolution. (The civil war having ended), it was necessary to stage a retreat so far as production relations were concerned. NEP, though "considered seriously, and for a long time", was, nevertheless, a period of transition. It was conceived in order to give "breathing space" to the economy, and to enable, first, its restoration to prewar levels, and to set the stage for its reconstruction. NEP succeeded admirably in the first task, and helped the economy stage a restoration on the basis of existing productive capacity. Reconstruction, however, was a more formidable task. It involved

a) The advancement of productive forces. This could occur on the basis of the industrialisation of the country, undertaking large scale investments, and on the basis of the organisation of agriculture on cooperative or collective basis.

b) The inculcation of socialist values in the populace. This would help to iron out certain deepseated conflicts that were embedded into the social and economic fabric of Soviet society; would help overcome the inertia of the populace towards change; would prevent resistance towards a new social and economic formation; and would enable the people to commit themselves to building a socialist order.

Now, NEP, as it stood, was engendering neither (a) nor (b) but was, in fact, endangering both:

1) The production relations under NEP were not conducive to the advancement of productive forces. There was the problem of generating a surplus in the economy. Industry was weak; its relative position was small; and it did not possess the capacity to generate an internal surplus. There were problems associated with extracting a surplus out of agriculture. And any attempt at undertaking large scale investments could head the economy towards a crisis, lead to public discontent and to the eventual overthrow of the regime.

2) The production relations under NEP were leading to the reemergence of capitalist forces. The atmosphere that prevailed under NEP was one of competition and conflict, rather than that of cooperation. There was a conflict between town and country, each competing for a larger share. Further, amongst the peasantry, the environment of competition had led to class stratification.

These, together, were retrograde to the endeavour to build socialism. We shall examine these problems with reference to agriculture and industry.

2.3.2 The Peasant Problem

1905 was a year of ferment. Stolpyn sought to contain it further by introducing his famous reforms. These sought to

dynamise Russian agriculture, and, at the same time, sought to cultivate a class of prosperous and contented farmers, whose self interest would endear them to the regime. The Tsarist Empire would, thus, have a new set of allies who would be its bulwark against a revolutionary movement in the countryside. The Stolpyn policy aimed at the dissolution of large estates and at a "forced swathing" of the collective system of peasant ownership. It aimed at substituting in its stead, individual peasant ownerships as the basis of the rural Russian economy. The capable and efficient would aggrandise themselves at the expense of the weak, produce a surplus, inculcate efficiency and clear the path for the capitalist development of agriculture. Stolpyn, thus, placed his "wager, not on the needy and the drunken, but on the study and the strong".³⁵ Stolpyn's political wager was misplaced. Prosperity of the few was won by the impoverishment of the many. Discontent grew and the policies boomeranged upon the regime. The industrial proletariat marched in alliance with the peasantry to overthrow the old order, bringing about a "proletariat revolution, flanked by a peasant war".³⁶ The proletariat gained control of the government, the factories and the towns; the peasants quelled their hunger for a patch of land. Having achieved their respective aims (immediate), their paths now seemed to diverge. The proletariat wanted to construct a socialist state based upon socialised industries, which were to be complemented by a socialised system of

agriculture based on collective lines. The peasant, though antifeudal, was not given to socialist aspirations, but was motivated, by petty bourgeois ones.³⁷ This was the genesis of the "accused" problem.

In fact, Rosa Luxemburg, commenting on the land decree of November 8, 1917 (NS), had categorically stated that "Lenin's agrarian reform has created a new and mighty popular stratum of enemies, whose resistance will be such more dangerous and stubborn than the resistance of the land owning gentry".³⁸ Her premonitions rang very true, when, shortly after the revolution it was alleged that the peasants were claiming - "we are Bolsheviks, but not communists; we are for the Bolsheviks because they drove out the landlords, but we are not for the communists because they are against individual holdings."³⁹ This incompatibility which now existed between the aims of the former allies manifested itself in all clarity during the NEP period in the form of the conflict between town and country. And herein arose the very formidable task of instilling in the populace socialist values to bring the peasantry to cooperate in building socialism.

The peasant problem was an admixture of ideological fears, political misgivings and economic considerations.

Economic Considerations

An economy, whatever its institutional set up, must necessarily produce a surplus for it to advance in any given

direction. An economy, predominantly agricultural, has to rely, at least initially, for the greater proportion of its surplus upon agriculture. If poised for industrialisation, it has to depend almost exclusively (in the absence of credit from abroad) on agriculture for raw materials and food stuff, which can then be directed into industrial development. Thus, not only is industrial development contingent upon development in agriculture, but the agricultural surplus - more precisely, the marketable portion thereof, constitutes an upper limit to the expansion of industry. In the normal state of being in such an economy, therefore, industry is "fettered to the condition of the peasant economy".⁴⁰

In prewar Russia, agricultural organisation was based upon large estates, Kulak farms and upon peasant production. About three fourths of all marketed surplus came from the estates and Kulak farms. The estates marketed about one half of their produce and the Kulak farms about a third. The middle and the poor peasants marketed on the average about one sixth of their total produce and supplied about a fourth of the total marketed output.⁴¹

The land decree of November 8, 1917 (NS), changed all this. It nationalised all land and ordered its distribution to those who worked it. This act of rare revolutionary benevolence turned out to be a thorn in the sides of the Bolshevik regime - it led to the break up of large estates and communes, and brought about a proliferation of miniscule land

holdings operated by individual peasants. The proportion of land in peasant hands rose from 67.6 per cent of cultivated land to 88.5 per cent (96 per cent by other estimates).⁴² This not only decreased productivity, but the peasant now consumed a larger proportion of this smaller produce. On the economic front the land decree negated the advances made by the Stolpyn reforms; it revived cultivation for subsistence and offered no incentives for production for the market. On such an economy, the regime now came to depend for its raw materials and foodgrain.

Acute fragmentation of land, then and now, is not conducive to producing a surplus. By its very being, it repudiates economies of large scale production and does not allow for the application of modern implements, new techniques and methods. It fosters subsistence farming which instills in the peasant that timeless inertia of the ages and which shuns all movement, development and change. Whatever be its advantages to human happiness, subsistence farming, together with the attitude it fosters, leads, more than anything else, to a perpetuation of economic backwardness. It is clear that the greater the proportion of subsistence farming (and its counterpart, petty production in industry) in the economy, the greater will be the proportion of harvest that will be consumed by the producers for their own needs. Large units of production, on the other hand, would give rise to a greater proportion of the harvest that would constitute a surplus, and would provide

raw materials and food stuff for industrial expansion and for export. Thus the marketable surplus of agriculture is largely dependent upon the economic organisation of society. It is institutional in character. Different social and economic organisations in the countryside (large scale farms, collective and cooperative farming, peasant holdings) give rise to different proportions of the harvest that can be marketed. If we incorporate the possibility and applicability of technological change, the differences are even more pronounced. The problem of low production, productivity and the small marketable surplus in the Soviet economy could be surmounted by providing an appropriate organisation to the social and economic life in the countryside, "to agricultural production and to the commercial exchange between town and village".⁴³ These changes the peasantry were unwilling to undergo, their values and aspirations thus inhibiting the advancement of productive forces.

Secondly, in the NEP period, the problem of demand raised its head. The exorbitant rent and taxation structure of Tsarist Russia had laid claims upon a large portion of the peasants revenue. To meet these obligations, the peasant had to sell a large proportion of his produce and obtained nothing in return. This had two consequences:

- 1) A large marketable surplus was perforce generated.

2) The payments to the landlords and to the government represented, in part, forced savings on the part of the peasantry.

During the period of war communism, though rent payments were abrogated, virtually all surplus above subsistence needs was requisitioned. However, under the new agrarian relations under NEP, rent payments were non-existent and the "agricultural taxes amounted in 1924-25 to less than one third of total peasant obligations before the war".⁴⁴ NEP, thus, conferred a new status upon the peasantry. For the first time in Russian history, decisions regarding the quantity of output to be produced and marketed moved into the hands of the Russian peasants. Now, in order to put a certain quantum of produce upon the market, the peasants demanded, in return, industrial goods. In the absence of these they deemed it wiser to fatten themselves and their cattle. This drastically upset the precarious equilibrium of the Soviet economy between "the effective demand of the village and the marketable output of the town". The marketable surplus of agriculture, so essential for industrial development, was now contingent upon the supply of industrial produce to the countryside; upon a quid pro quo relationship between town and country. For industrial development this was a vicious circle indeed.

This, however, was not the end of the matter. The peasants now, even reacted to adverse changes in the price

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This, however, was not the end of the matter. The peasants now, even reacted to adverse changes in the price

structure by withholding and hoarding their output and withdrawing into a subsistence economy. The economy could, thus, be held to ransom at the whims and caprices of the peasantry. Such a situation was reflected in the "scissors crisis" (see Appendix I) of 1923 and the procurement crisis during the years 1925-26-27.

One of the points that the "scissors crisis" highlighted that the roots of the problem lay in the weakness of Soviet industry. To prevent the recurrence of such a crisis, and to help industry overcome the constraints imposed by agriculture, the relative position of industry in the economy needed to be strengthened and its productivity increased.

Ideological Considerations

The 'peasant problem' had another dimension. NEP had been instituted primarily to cement the peasant worker alliance which had shown signs of cracking under the strain of war communism. NEP represented in the main, a system of concessions to the peasants at the expense of the industrial proletariat, "the bearers and the spearhead of the revolution". This was the cause of considerable apprehension. Further, NEP had been based upon market incentives to the peasants. The free play of market forces, and the legalisation of land leases led, inexorably, to a recrudescence of capitalist forces and to the process of class stratification in the countryside. The class stratification led to widespread

discontent amongst the "betraks" and the "beydnyaks", i.e. the landless labourers and the marginal farmers. Now, to encourage the "development of agriculture on capitalist lines - meant to tolerate capitalist inequality and capitalist exploitation in the countryside".⁴⁶ Conditions under NEP implied a "wager on the kulak". This was a consequence of NEP that ran contrary to the task of building socialism.

Here we may note that the betraks and the bednyaks, in their restlessness, were prompted not by socialist values and the advantages cooperation would confer upon them, but by petty bourgeois aspirations. They, too, sought to become, if not kulaks, middle peasants. It was thus, that a total change in the attitude of the countryside had to be wrought. The left wanted to eliminate the peasant problem by securing the rapid industrialisation and urbanisation of the country and the extension of cooperation in agriculture. Urbanisation and the relations of production imposed by industry and the cooperative set up would, perforce, constitute a total and final break with values and modes of thought inherited over generations. It would compel the former peasantry, in the absence of other possibilities, to cherish the ideals of socialism. The left in fact, went further and proposed to industrialise the country at the expense of agriculture; to establish the "dictatorship of industry", "ad majorem gloriam" proletariat, i.e., in the greater glory of the proletariat.

The right, on the other hand, claimed that the "smytchka" was inviolable. Any policy that risked a conflict with the peasantry was doomed to disaster. The proletariat had to march ahead, hand in hand, with the peasantry. The peasantry had to be gradually educated and the virtues and superiority of socialism had to be demonstrated to them. The realisation of the inherent superiority of socialism would bring about a change of heart and a change in their values. Competition within the peasantry and the conflict between town and country would be superseded by cooperation - the organisation and the abstract noun.

2.3.4 Industry

Where industry was concerned, there was a growing realisation that the recovery was reaching a plateau. The 'restoration' based upon capacity utilisation had exhausted its potential, industrial capacity was overtaxed and the "transition from restoration to reconstruction was impending". Industrialisation was to be the key to socialist reconstruction. Not only was it an economic imperative for the economy to advance in any direction, but it ^{would} also foster relations of production conducive to socialism. Only on the basis of industrialisation could the Soviet Union catch up with the west, and transform its economy onto a higher technological plane.

Now, any advance demanded an increase in productive

capacity, i.e., large scale investments. The prospect for any concerted effort towards large scale investment was fraught with misgivings. The realities of the situation were thus. There had been a large scale destruction of productive capacity during the war and the ensuing civil war. Little or no replacements had been undertaken in the years that had followed (about 10), giving rise to accumulated arrears of "bunched" replacement demand. This imbalance now, called for large investments, in order just to maintain the existing capital stock intact. Any advance would entail an effort of gigantic proportion; as the Red Queen explained to Alice - "now, here you see, it takes all the running you can do, to keep in the same place. If you want to get somewhere else, you must run at least twice as fast as that".⁴⁷

The rapid NEP recovery, under conditions of the changed parameters of income distribution, had engendered a demand running ahead of the capacity limits of the economy. Now if considerable investments were undertaken, industrial capacity would be created only after a time lag. This would entail a one way withdrawal of productive resources from society's productive apparatus without producing a corresponding flow of output. Yet, these investments would induce income creating effects of alarming proportions almost immediately. Two destabilising forces would come into play.

Resource availability would shrink, and, simultaneously, demand for resources would increase. This, in the absence of organised change, could result in a rampant inflation. Such a problem is met with the help of reserves existing in the economy.

These reserves are in the form of unutilised capacity, e.g., idle plant and machinery, as well as in the form of commodity reserves, e.g., inventories. When new investments are undertaken, these reserves are brought into play and cushion the withdrawal of resources represented by investments until the new plants and equipment get employed in production. They, thus, enable the crisis free accumulation of fixed capital to take place. In the Soviet Union these reserves did not exist, and this was the essence of the inflationary imbalance existing in the economy.

The problem was even more complex. Investments in fixed capital required the prior existence of industries producing fixed capital. Heavy industry constituted a primary and the more enduring bottleneck in the expansion of an economy. However, a large investment programme, channeled mainly towards the heavy goods sector would not produce the vector of output that could go towards satisfying peasant demands. Such investments would, for a considerable time, reduce the availability of manufactured goods, and thus could raise their prices, turning the terms of trade against agriculture. The price scissors could open and a crisis in agricultural supply could ensue. This would impede industrialisation.

The spectre of the peasants problem loomed large in the minds of the debates as they tackled the problem of achieving a high rate of capital accumulation without a rampant inflation following in its wake. Yet, investments in heavy industry could, in the course of time, enable the rate of total construction to increase faster than otherwise, and enable, as well, the future potential flow of consumer items and the future rate of growth to increase faster than otherwise.

Alternately, a gradualistic programme for growth, with a slow rate of capital accumulation channeled into the consumer goods sector, would, from its very inception, be self defeating. In the short run, it would, no doubt, avoid excessive inflation, appease the peasantry, and, preserve the tenuous entente with it; in perspective, however, it would condemn the economy to stagnate in the quagmire of low capacity. Thus when productive capacity was the main constraint in the expansion and industrialisation of the economy, a niggardly allocation of investment to the capital goods sector, would, in the long run, leave productive capacity struggling to keep pace with demand. A repressed inflation would be a permanent feature of the economy.

The reason is as follows: in a closed economy the capacity of the capital goods sector determines the potential net addition to the capital stock. Assuming a given technology and full capacity utilisation, a precondition for the economy to expand is that the net output of department I, the producer

goods sector, be larger than the depreciation of the capital stock in department II, the consumer goods sector. Now, a higher ratio of department I to department II, would, given other things constant, lead to a higher rate of growth. Consumption and growth may be competitive in the short run; however, growth is a necessary condition for an increase in consumption over a future horizon. Thus, the higher the growth rate of consumption desired in the future, the larger should the proportionate allocation of investments to department I be, "and although the Marxian model taken by itself did not yield any policy recommendations, one way or another, people whose minds were set on industrialisation at the greatest possible speed could derive from the construct a powerful support to their contention, that, in order to secure a rapid and smooth advance in the future, a discontinuous jump was needed now".⁴⁸

The problem centred round the decision whether the rate of industrialisation was to be fast or slow. A fast rate of industrialisation "would place a greater strain upon the resources in the near future" but would enable the sooner yield of increased productivity. Out of this, new resources could be formed. A slow rate of industrialisation "would involve a smaller annual investment problem, but at the expense of making future years less rich in productivity than under the alternative and more heroic method they could have been".⁴⁹

2.3.5

These were the problems of socialist reconstruction facing the economy. The conditions, as prevalent under NEP, represented a cul de sac for any advance. Moreover, the period of transition "contained within itself the possibility either of a recrudescence of capitalism, if Kulak and Nepmen and other elements of (nascent) capitalism were allowed to grow too strong and beget their kind, or of a development towards socialism, if a correct economic policy were pursued by the state".⁵⁰

Industrialisation had to be undertaken without delay for "in transitional periods of history especially, policy cannot slack time for long; if the navigator does not set his course boldly, he may well be carried backwards by the latent force of those surviving elements of the old order that remain unmastered".⁵¹

A debate ensued to "set the course" of the economy by propounding various strategies to industrialise the country along socialist lines.

CHAPTER III

THE DEBATE

3.1 The Right Unbalanced View

Shanin addressed himself to the problem of the eventual "painless" and extensive development of heavy industry, without a rampant inflation following in its wake. In doing so, he evolved a strategy for the unbalanced growth of agriculture within an essentially free market environment, and in the presence of foreign trade. Sequentially, light and heavy industry would follow. Such a strategy, he claimed, would achieve a larger total effect, at a lower cost. The institutional framework he envisaged was that of NEP.

The idea underlying his strategy was a manipulation of the inter and intra sectoral parameters of investment in such a way that a given outlay would secure larger returns than otherwise. These (larger) returns, reinvested likewise (i.e., at a higher compound rate) would lead to a high rate of accumulation. His was a strategy, aiming to utilise a given volume of investment so as to affect the rate at which the rate of investment could change (increase). Thus, though the limit to the rate of investment at an initial period may have been historically determined, the way in which this investment is utilised, could make all the difference for the

future. On the basis of a high rate of accumulation, industrialisation could proceed "painlessly".

Shanin's basic premise was that the limit to the maximum rate of investment was determined by the stock of commodity reserves already existing in the economy or potentially available to it.

"The fundamental criterion determining the volume of admissible expansion of fixed capital and indicating the maximum limit of investment is the existence of commodity reserves created by prior economic activity or imported on the basis of credit."¹

Any investment in fixed assets would reduce these commodity reserves.²

When accumulated stocks do not exist, investment in projects with long gestation periods would generate income without producing a corresponding supply of commodities. Investments in heavy industry would lead, inexorably, to a "goods famine" and to a crisis in the economy.

Thus, his fundamental contention was to augment to the maximum extent possible, this commodity reserve, in the shortest possible period of time. This was a precondition as well as a constraint to the development of heavy industry. Once the "commodity reserves on hand are greater than the decrease of these reserves that would result from an expansion

of fixed capital",³ the development of heavy industry could proceed "painlessly" without generating a goods famine. Ergo, the course he proposed was to "saturate the market with agricultural and manufactured goods".⁴

Priority, thus, had to be granted to investment projects with low capital intensity and short gestation periods. The natural choice was agriculture (an intersectoral manipulation of investment) and light industry (an intra sectoral manipulation of investment).

Shanin maintained that the capital output ratio in agriculture was low and the labour intensity (L/K) was high.

"The organic structure of capital is considerably smaller in agriculture, and labour requirements are considerably higher. One and the same unit of capital brings into play masses of labour eight times as great in agriculture as in industry..."⁵

Thus a given outlay would yield in the agricultural sector higher physical returns than in industry and would "throw the goods upon the market much faster than industry".

Further he maintained that the incremental propensity to consume in the agricultural sector was low (though the APC was high). The higher MPS would "enhance the accumulative effect of capital invested in agriculture"⁶ and simultaneously ease the inflationary situation.

Within the industrial sector, the consumer goods industries with low capital intensities and short gestation

periods, would enlarge the supply of goods in the short run. These goods would cater to and satisfy the demands of the countryside and of the populace as a whole and would relieve ^{inflationary} revolutionary pressures. "Only under these conditions will the reserves be available that will make possible painless immobilisation of commodity masses in fixed capital."⁷ It is then that "the extensive development of heavy industry could be handled painlessly..."

Such a course would smoothen out the transition from restoration to reconstruction. Far from inhibiting the process of industrialisation, it would, in fact, accelerate it.⁸ The essence of this 'list der Vernunft', i.e. trick of the reason was as follows:

"If in industry average accumulation is estimated at, say, 6 per cent per annum, in agriculture it can be reckoned at a considerably larger figure, say, 15 per cent... If some 100 units of resources were diverted this year from agriculture to industry, the following year they would total 106 additional units in industry, in the third year 112.3, and in the fourth year 119.1. But if the original 100 units were left in agriculture, the following year they would there yield, 115.0 units of additional resources,ⁱⁿ the 3rd year 132.2, and (in) the fourth year 152.0... (If the shift of resources) were to take place not in the first year but towards the beginning of the 5th year, the resources of industry,

on those same 100 units, would grow to 152.0 units. It is clear that by taking the resources intended for diversion to industry and passing them first through agriculture, we enable them to advance industrial development more tellingly than if we pour them immediately into industry."⁹

Thus if the investible surplus were channelled into agriculture, allowed to grow at a high rate for a few years and was then diverted into industry, the total absolute effect achieved would be such larger than if one had started with industry itself.¹⁰

Foreign trade would buttress the cogency of this strategy. Concentration on the traditional agricultural activities would lead to a thorough exploitation of the comparative cost advantage in foreign trade. This would enable the economy to reap the gains of trade, and to procure the desired capital goods with a sacrifice of resources smaller than if it had to produce them domestically.

"The possibility of achieving an upsurge in the national economy through agricultural exports i.e., of achieving it in the cheapest possible way, is our economy's biggest asset. This asset ought...to have been exploited to the hilt."¹¹

Qualified by exceptions in the sphere of transportation, and on account of infant industry and military considerations, these essentially were Shanin's proposals for a strategy of long term growth and development. By investing in the right

direction, commodity reserves could be built up, and the economy would expand and would be able to expand. The development of light industry would respond to the demand created by the village market; heavy industry would follow in the trail of the demand created by the growth of agriculture and light industry. This would be the natural course of development of the economy;¹² what Rostow was to rediscover and Christen more than twentyfive years later as the "textiles first" approach.

In his analysis, Shanin viewed demand conditions preceding those of supply. Pursuing this line of thought, he perceived a disproportion in the growth of the economy.

"...industry's capital is developing too fast and that the industrial branches which are developing are not those which could satisfy consumer's goods demand... We must definitely realise that the heavy industries can be developed only on the basis of extensive preliminary development of light industry (or importation of consumer's goods). Development of consumers' goods production and of our country's export branches is our central object."¹³

Industrialisation, thus, was to follow a definite sequence, dictated by demand.

Implicit in his analysis was also the view that the investment potential of a country was governed at a moment of

time by a saving ratio arising out of the income - expenditure balance of the economy at that juncture of time. This ratio circumscribed room for manoeuvre. Any rate other than that specified by the income expenditure balance would lead to distortions. Thus to increase room for manoeuvre, the income expenditure balance would have to be manipulated. This could be done by providing incentives to agriculture and industry. Accordingly, the spur of motivation in the economy was to be "self love" (mainly of the peasantry) "motivating the whole". Consumer goods dangled before the people would raise expectations, in still endeavour, and spur the people on onto higher production and productivity. "The attractiveness and availability of consumer goods, awareness of the possibilities of technical improvements, availability of market outlets" would influence rural attitudes towards change.

The institutional framework which could consummate such a strategy was one based upon market relations, and laid a "wager upon the strong".

There, however, were more imponderables in heavy and earth, and along the path of development, than were dreamt of in Shanin's philosophy (or for that matter Rostow's).

1) Bazarov pointed out that neglect of industry, even for a short period of time could be disastrous. "It must be remembered that for a growing organism an interruption in development implies not a stationary condition but a step backward..." When the time would be ripe to develop basic

industries "they would be already worn out, debilitated and run down to such an extent that there would be nothing left to develop but it would be necessary to start afresh. To embark upon such an experiment would mean to risk a loss not merely of building and equipment, but also of a productive force which is still a great deal more valuable and difficult to replace - the cadres of skilled...workers."¹⁴ Thus, developing agriculture ahead of industry would be self defeating.

2) Shanin's strategy glossed over the point that the fortunes of agriculture and industry are inextricably entwined. The relationships involved are not just those of substitutability but also ones of complementarity. The expansion of industry to a large extent depends upon productivity in agriculture and conversely. "While today's steel would compete with today's grain for investible resources, its expansion would help to produce more grain tomorrow... The distinction between capital goods producing flows of consumable goods, and those producing additions to social capital stock... escaped him at this point."¹⁵

3) Inherent in this strategy was the thought that a capital scarce economy should minimize the use of capital by trying to achieve the highest possible immediate returns on it. Where individual project choices are concerned this is deficient because it ignores the time factor. Over its life time, a given investment in a project with a high K/O ratio

may produce a far greater quantum of total output over its life time than the same capital invested in a project with a lower K/O ratio but a shorter span of life. Investment decisions are better made, keeping in mind, maintenance and replacement costs. It may well be that capital intensive projects may end up with higher net returns to capital.

4) Further, returns to scale would be considerable in the industrial sector, especially in an economy where considerable productive capacity had been destroyed.

5) And finally, came interdependencies. It was conceded that an efficient and effective transportation (capital absorbing and without immediate tangible returns) would be indispensable to a strategy which emphasized agriculture in a vast country.¹⁶ The same logic demanded that industries indispensable for the construction, operation and maintenance of transportation facilities should also be emphasized and given a corresponding share in the total volume of investments.

The web of interdependencies which was capable of pulling up the economy, could also, through the neglect of certain sectors bind the economy firmly into the ground. To neglect industry, even temporarily would be to risk a retrogression the economy could ill afford.

These were the economic problems inherent in this natural path of development. Moreover, neither was the social framework such a strategy implied in accord with the aims and aspirations of the Soviet regime. Such a strategy would

kindle petty bourgeois aspirations in the peasantry, lead on to class stratification and firmly reentrench the capitalist milieu and elements the revolution had strived to eliminate at so great a cost.

3.2 The Left View

... diseases desperate grown by desperate appliance are relieved or not at all.

Preobrazhensky had been a persistent advocate of industrialisation throughout. Soviet Russia's underlying backwardness was the fons et origo mali - the fountain and origin of evil - which his strategy sought to eliminate once and for all.

He viewed the problems that had surfaced in the 1920s as "an accentuated expression of the deepseated maladjustments in the structure of the Soviet economy".¹⁷ The roots of the problem lay in

a) The egalitarian redistribution of income brought about by the revolution. This had upset this demand balance; the potential demand in the economy, now, far exceeded that under the Tzarist Regime.

b) Years (about 10) of under replacement of an originally low capital stock, which had brought in its wake, "bunched arrears" of replacement demand.

Now the only way out was to change the structural parameters responsible for this "mal adjustment" rather than be bound within them; i.e. to change circumstances, rather than adjust to them in the best possible manner. To achieve this, he advocated a sharp discontinuous spurt in investment activity, and, in order to contain the inflationary pressures this would unleash, simultaneous measures to alter the structure of demand. (by resorting to forced savings). In the short run, the forced savings would equilibrate aggregate demand with aggregate supply, and, moreover, the investments resulting therefrom would increase productive capacity.

Only through a discontinuous spurt in investment activity, channelled overwhelmingly into the capital goods sector, and the abandonment of the market in favour of systematic planning, could the economy break the shackles it was bound in, and embark upon the process of socialist construction.

Russian involvement in the war had led to a destruction of productive capacity. The disturbing period of war communism had brought about further disruption. No investments had been possible. "We did not accumulate - the best thing we could do was to use up our resources as economically as possible."¹⁸

NKP was a period of recovery, based upon the utilisation of existing capacity. It was a period of "restoration".

Once the existing capacity was fully utilised, there remained little or no scope to increase production by more intensive utilisation and/or by minor technological changes.¹⁹

Little or no replacement had taken place over these years. This gave rise to "bunched arrears" of replacement demand. Not only would economic recovery stop short of pre-war levels, but the problem that now loomed large was the very real fear of an impending retrogression of the economy resulting from this "bunched arrears" of replacement demand, in the absence of drastic measures. And this laid the most cogent claim for a discontinuous rather than a gradualistic investment programme.

In an economy, replacement demand is a function of the size of the capital stock, of the durability of capital, as well as of the behaviour of the capital stock in the past (constant, growing or shrinking over time). Assume a uniform age structure of the capital stock. In a stationary economy, the proportion of replacement demand to the capital stock is equal to the reciprocal of the average durability of capital. In a growing economy, this proportion will be smaller; and in an economy which has experienced a decline in its capital stock, the ratio of replacement needs to the capital stock will be larger than the reciprocal of the average durability of capital.

Replacement demand for capital in time period 't' =
 R_t .

Average durability of capital stock = d .

$$R_t = f(K_{t-d}, 1/d, \frac{dk}{dt}) \quad (1)$$

(a) In a stationary economy

$$K_t = K_{t-d} \quad (2)$$

$$R_t = \left(\frac{1}{d}\right) K_{t-d}$$

$$\text{Thus } \frac{R_t}{K_{t-d}} = \frac{1}{d} = \frac{R_t}{K_t} \quad (3)$$

(b) In a growing economy

$$K_t > K_{t-d} \quad (4)$$

$$R_t = \left(\frac{1}{d}\right) K_{t-d}$$

$$\text{Thus } \frac{R_t}{K_t} < \frac{1}{d} = \frac{R_t}{K_{t-d}} \quad (5)$$

(c) In a retrogressing economy

$$K_t < K_{t-d} \quad (6)$$

$$R_t = \left(\frac{1}{d}\right) K_{t-d}$$

$$\text{Thus } \frac{R_t}{K_t} > \frac{1}{d} = \frac{R_t}{K_{t-d}} \quad (7)$$

Further, years of under-replacement had rendered the age structure of capital stock archaic. (rendering 'd', the average durability, smaller). This further accentuated the need, and swelled the volume of required replacements. Ergo, to maintain the inherited capital stock intact, the economy would need to invest a larger proportion of resources to capital stock than ever before.

Further, if the construction period was characterised by delays and stoppages, the problem of industrialisation assumed an even graver complexion, and this was all the more the reason to start-investing now.

Preobrazhensky, paradoxically, brought in the employment consideration to further buttress his arguments in favour of a massive investment programme.

One of the "conditions of equilibrium", he claimed, was "the gradual absorption of the surplus population of the country".²⁰ An economy, thus, must advance fast enough to absorb, both, a growing labour force, as well as the population rendered surplus by capital expansion amidst technological progress. Where capital employed per head is low and technology archaic, any reassembling of industry on "a new technological basis", as he advocated, ipso facto, implied a massive scope for the displacement of labour.

The "new technological basis" implied production on the basis of a higher capital intensity (K/L ratio) than before. Labour would have to be provided with more tools and

machines than before. Further, these tools and machines should be more capital intensive than before. This would create problems -

1) To absorb a given quantity of labour, a larger amount of capital would be required.

2) Capital intensive techniques would displace labour, and this labour would have to be absorbed on the basis of the higher capital intensity envisaged.

Far from being an argument against industrialisation, it was to Preobrazhnsky, a most forceful case for a massive spurt in industrialisation to counter the employment problem it itself creates, and thereby to relieve it. Accumulation in industry thus, had to be large enough not only to counter-vail the labour displacing effect, but to provide additional and sustained employment. Thus, "all attempts to solve the unemployment problem in a radical way led to the problem of accumulation".²¹

The revolutionary transformation of society had changed the parameters of income distribution, giving rise to a higher potential effective demand. A large output was required to satisfy this demand. Moreover, the capital output ratio he envisaged would be larger. Thus to secure a larger quantum of output for the future, investment under new conditions had to increase by a larger multiple of the incremental output desired.

The other arguments presented in favour of the left view were the following:

Time had slipped by. This had begotten abroad a spectrum of enhanced technological possibilities. To an economy embarking upon reconstruction, this technological advance widened the gap between "the existing and the possible". Now, a "renewal of fixed capital" was possible "in conditions of rapid technological progress". Plucking the fruits thereof, and exploiting its full potentialities demanded a thorough and consistent revamping of plants and machinery in consonance with new methods. Extensive capital replacement was thus a necessary condition to break the shackles which low productivity and anachronistic methods had bound the economy in.

"Crumb collecting" or gradualistic methods which incorporated, piecemeal, innovations into enterprises with archaic structures, obsolete machinery and primitive methods would never enable the economy to turn the corner and reap the potentialities of modern technology.

Further, the capital stock of the country had suffered a decline. A decline in the capital stock of an economy would tend to increase the marginal product of capital if the quantities of cooperant factors and technology remained unchanged. Technological progress would further enhance the marginal returns from capital, leading to a forceful case for a massive step up in the investment programme.

Moreover, the rejuvenation of certain crucial sectors which had lost economies of scale, through depletion of stocks, would have ramifications throughout the economy. Increasing returns to scale would set in, and complementary interaction, (a cheaper supply of own product and an increased demand for other products) would breathe new life into a "slumbering corpus economium".

All this militated for massive investments which constituted "the key to the future solution of all basic problems of transition".

3.3 Primitive Socialist Accumulation

The irreducible minimum of investment was large. The problem was how to secure it. Preobrazensky presented a strategy of primitive socialist accumulation which would (1) help mobilise the necessary resources and (2) provide a direction to the economy (in terms of the relationship between the private and socialised sectors of the economy.)

His strategy was derived from an analogy to what Marx had termed primitive capitalist accumulation. Extrapolating it, Preobrazhensky asserted that it was not possible for a weakly developed socialised industrial sector to develop and gather momentum upon internal resources alone. Further, it would be ideologically retrograde that the industrial proletariat, the vanguard of the revolution and the bulwark of the socialist regime, be asked to bear the sacrifices for

development. The essence of Preobrazhensky's strategy was, thus, to obtain resources from outside the complex of the state industrial sector. There existed in the Soviet economy (of the 1970s) a private and a socialised sector. Resources thus had to be obtained from the private sector, notably at the expense of the peasants who formed the overwhelming part of the presocialised economy.

This was to be done, amongst other things (tax etc.), by unequal exchange between town and country, by the exploitation of the peasant.

Such a strategy would help secure the resources needed for investment, and would, as well, provide a direction to the economy - the socialised industrial sector growing faster (absolutely and relatively) than, and at the expense of the non-socialised sector.

Primitive socialist accumulation thus stood for the set of devices which served the purpose of bringing about "within the limits of what is economically possible and technically feasible", "a shift in the productive resources from the private to the socialised sector, over and above the share the latter could obtain as a result of the operation of the law of value in a competitive market".²²

Following Aristotle in moving from the general to the particular, Preobrazhensky started out by positing general propositions on the dynamics of development.

"Not a single economic formation", claimed he, "can develop in a pure form, on the basis merely of the immanent laws which are inherent to the particular formation. This would be in contradiction to the very idea of development. The development of any economic form means its ousting of other economic forms. The subordination of these forms to the new form, and their gradual elimination".²³

And, as the old order changeth, yielding place to new, "the laws of development of the old forms are changed simply into laws of resistance to the new form."²⁴ A supreme example of this universal and inexorable process revealed it self in all clarity in the tension between "continuity and change" in the Soviet economy of the 1920s. Two systems were operating simultaneously - the private form, the predominant form at that juncture of time, and the ascendant and "historically progressive" socialised form. These forms were each governed by their own internal laws, mutually antagonistic to each other, "each bent on the destruction of the other".²⁵ And this was the essential premise on which Preobrazhensky constructed the edifice of his strategy of primitive socialist accumulation. It was on this basis, (recognition of two forms existing in one economy) that he incorporated his value judgement (representing the aspirations of the socialist revolution) that the socialist sector (the historically progressive form) should grow at the expense of the pre-socialist form - in the particular case - petty production.

Preobrazhensky presented his arguments in terms of an analogy between the period Marx termed as that of 'primitive capitalist accumulation' and the corresponding period in the advance towards socialism.

"In order to understand the present phase of development, it is extremely helpful to carry out a systematic comparison between the first steps of socialism and the first steps of capitalism."²⁶

Marx had asserted, that before capitalism could generate the dynamism it possessed on the basis of internal sources of growth and its technological superiority, it had initially to create certain conditions for its perpetuation. This was done by a veritable battery of highly illiberal means; by the open exploitation of the workers; by "separating the producers from the means of production", by drawing them off the land into factories. The superiority of capitalism could not have come into being "if the rules of the competitive game had been adhered to from the start".²⁷ Similarly, the socialist sector had to draw resources from outside its own system before it could "develop all its economic advantages, and establish itself a new technical base". Socialism, thus had to pass through a stage of primitive accumulation as distinct from socialist accumulation.

"By socialist accumulation we mean the addition to the functioning means of production of a surplus product which has been created within the constituted socialist

economy, and which does not find its way into supplementary distribution among the agents of socialist production and the socialised state, but serves for expanded reproduction.

Primitive socialist accumulation, on the other hand, means accumulation in the hands of the state of material resources lying outside the complex of the state economy".²⁹

Now, ideologically, socialism could not resort to accumulation.

1) In the manner of colonial plundering - "a socialist state, carrying out a policy of equality between nationalities repudiates on principle all forceable methods of capital in this sphere. This source of primitive accumulation is closed to it from the very start and forever".³⁰ Or

2) Through the exploitation of labour - "... from the moment of its victory, the working class...cannot have the same attitudes to its own labour power health, work and conditions the capitalist has. This constitutes a definite barrier to the tempo of socialist accumulation..."³¹

However, there now existed another possibility : The economy comprised of two sectors - state and private, each governed by its own internal laws, each mutually antagonistic to each other. And, the resources, now, could be generated at the expense of the presocialist, private sector, notably the peasantry, who then constituted four fifths (4/5) of the population.

The essence of the strategy was to bring about, "within the limits of what is economically possible and technically feasible", a channelling (pumping over, perekachka) of the surplus from the private to the state sector.

In view of the fact that the economy was cleared into two systems, private and state, the tasks of primitive socialist accumulation were

1) "Not to give to private capital what essentially belonged to the socialist sector and constitutes its own fund created on its own production base."³² - This was described by Preobrazhensky as the negative task. And

2) The positive task which constituted "a struggle for the surplus product of the private economy" i.e. the "nourishment of the state economy at the expense of the non-socialist milieu".³³

These tasks could be achieved by a manipulation of the price structure and by the taxation of the presocialist economic forms, and were buttressed by the fact that (1) the nationalised sector could be identified with state power and (2) that the socialist sector could present a united cohesive front to the presocialist forms which were scattered, dispersed and atomistic.

Non-equivalent exchange in market relations (price manipulation) between private and socialised sectors would be the most effective single device. This, Preobrazhensky maintained, could be achieved by a suppression of the law of

the value, thereby obtaining a greater quantity of labour of one economic system (petty production) in exchange for smaller quantities of labour of another economic system (socialism). As the peasants formed an overwhelming part of non-socialised sector, this would imply turning the terms of trade between town and country in favour of the former; i.e., a price policy consciously aimed at exploiting the peasantry.

Preobrazhensky denied that equivalent exchange between the two systems could exist. He enumerated three possible possibilities.

1) First was the case where the state sector receives less value from the private sector than it gives. This is a dissipation of state capital, and to the Soviets, it would be a reversal of the road being trodden upon. It is interesting to note here, that such a situation did prevail in the Soviet economy in 1922 just prior to the scissors crisis. To the Soviets, such a possibility was consciously untenable.

2) Secondly, there was the case of equivalent exchange. Given two competing economic forms within the same economy, such a situation could theoretically, only exist momentarily. Dynamics of motion dictated change : either decay or development was possible; one form had necessarily to oust the other.

3) The third possibility was the case of nonequivalent exchange where the state sector received a larger

value from the private sector than it gave.

Such an event was desirable. If deliberately attempted "from above", it would involve "a price policy consciously calculated so as to alienate a certain part of the surplus product of the private economy in all its forms".³⁴ Not only would this be desirable, but also possible for the organisational reasons mentioned above. The price manipulations such an organisational structure rendered possible, would constitute a subtle form of taxation of the private economy, and enable a pumping over of resources from the private into the socialised sector. Such a price policy, would be the single most effective device in mobilising resources.

1) Because of the "extreme facility of collection, not a single Kopeck being needed for any special taxation apparatus"³⁵ and

2) For reasons of political expediency, being less offensive than direct taxation.

Having given this peculiar twist to the problem of unequal exchange, Preobrazhensky went on to state that "the state economy of the proletariat arises on the back of monopoly capitalism, and, therefore, has at its disposal means of regularizing the whole economy and of redistributing national income economically...".³⁶ These means of regulating the economy could serve as means of primitive socialist accumulation. He, thus, further furnished his arsenal with means such as the use of discriminatory rates of taxation on the private

sector, differential rates on services like transport, selective credit policies, trade, and the full utilisation of the state monopoly in foreign trade. We shall examine some of these measures, calculated to effect a pushing over to the state sector resources belonging to the private sector and to effect a redistribution of national income so as to serve expanded reproduction, thus enabling industry to grow faster.

1) The levers of state policy could be moved to lay differential rates on services like transport, notably, the railways. Favourable charges accorded to certain items like coal, petrol, ores, etc., would lead to a redistribution of resources within the state economy facilitating expanded reproduction. Certain differential charges could be levied between state and private freight.

2) Currency emission, too, could serve as a form of taxation, and the monopoly of the banking system could ensure it. The seigniorage the banking system enjoyed would accrue, both, from the state and the private sectors. However, if these resources went exclusively to the financing of state and cooperative industry and trade, "then we would see swiftly passing before our eyes a process of socialist accumulation". Further, differential credit policies could lead to a redistribution of resources within the socialist sector along desired lines. Next, if resources of the private sector, accumulated in banks were relent to the private sector, at a

higher rate of interest, the difference between what the banking system received and what it paid out, would be an accrual in favour of the socialist sector. Here we may note that Preobrazhensky felt that there was a cogent case to charge discriminatory rates of interest to the private sector, and in the extreme, a case not to lend to it at all. Credits given to the state sector would be repaid with interest, and would go simultaneously towards the enlargement of socialist capital. Credits to the private sector would only yield interest.

3) Trade formed another important source. Internal trade could be distinguished by 3 transactions.

- a) Exchange within the sector of the state economy.
- b) Exchange within the private economy.
- c) Exchange between the state and the private economy.

1) In the first case the tasks at hand were essentially negative (see above). They were essentially to minimise the costs of transaction, as these constituted a deduction from socialist accumulation. This was a problem of rationalisation and better organisation.

2) In the exchange within the private, distinct positive possibilities arose.

- a) Taxes levied on private trade would generate resources.

b) A profit could be made on the basis of the state distribution system which purchased food products from the peasants and sold it to the urban consumers. These profits would be an accretion to accumulation in the hands of the state, and a transfer of resources from one economic system to another.

3) In the exchange between the state and private economies, primitive socialist accumulation faced both positive and negative tasks. In the movement of commodities produced in the state sector to the nonsocialist milieu, the tasks were negative, and amounted to trading with the least possible costs and preventing the private distribution system from making profits on values created by state industry. In the case where the state procured produce from the peasants, the task was positive. All deductions from the income of the peasantry would be channelled into the state sector.

The state monopoly in foreign trade would further foster accumulation into state hands, being the only agency able to realise the exported surpluses of the peasants, and being able to dictate the commodities to be imported.

These were some of the methods and means advocated by Preobrazhensky.

The accumulation that would thus accrue in state hands would be a systematic deduction from capitalist accumulation. Its necessity was evident, and its possibility arose from the assumptions that

1) The private sector would be supplanted by the state sector.

2) That the peasants had, in the past, exhibited a high MPS and could, to an extent exist independent of industry.

This primitive socialist accumulation would be the most expedient way to mobilise resources and simultaneously to change the structure of demand by means of forced savings, solving at a stroke the twin problems plaguing the economy. It was only after this preliminary transference of resources to the state sector, that self sustained intra industrial accumulation could ensue.

It was expected that primitive socialist accumulation would result in an improved and enlarged industrial base, which would in turn, raise the income of society as a whole (peasants included). Demand for industrial goods would concomitantly result (because of the monopoly pricing policy of state enterprises) in a channelling of resources into the state industrial sector. The state enterprises, having established themselves, could then gradually lower their monopolistic prices closer to costs. The process would continue till the "technological and economic superiority over capitalism" would be secured.

And "period of socialist accumulation" would be a more appropriate term characterising the economy in transition than NBP.

"The new economic policy was 'new' so long as the memory of the old policy of war communism, to which it was contrasted, was still alive. It is necessary to do away with this expression...instead of 'new economic policy' it would be more correct and appropriate to say now: policy of socialist accumulation, period of socialist accumulation."³⁷

These were Preobrazhensky's propositions for mobilising resources for industrialisation. These were couched in terms of oppositional polemics castigating the regime for pursuing timid and conservative policies, at a time when bold action was needed. His recommendations, coming as they did (in 1925), were an attack on the official policy of closing the price scissors, and were hence looked at with disfavour by official circles. His strategy propounding the outright exploitation of precapitalist forms, which he referred to as the internal colonies of the socialised sector, was political dynamite to a regime balanced precariously on the base of 25 million peasant households. Lenin's policy of NEP had rested on a tenuous alliance between a numerically weak proletariat, who were now in the seat of power, and the peasant masses, who, after the change in agrarian relations, nourished petty bourgeois aspirations. The notion that socialism has to be built necessarily at the expenses of the peasantry, could not but rupture the 'smychka' which had been the groundwork of NEP. Politically such a policy risked an eventual La Vendee.

Officially, it was inevitable, on grounds of expediency, that such a daring provocative policy be repudiated.

Economically, Preobrazhensky's views appeared, on first sight, not just peculiar, but at variance with every conventional economic thought, then and now. It repudiated the doctrine of comparative costs, discarded the factors endowments argument, and ignored the demand supply equilibrium within the economy. With respect to the third, it was claimed that his strategy would lead to a fundamental demand supply disequilibrium. The pumping over of surplus from the agricultural to the industrial sector would strangle peasant demand for industrial products, and thereby, industrial expansion in the autarkic economy would be impeded. Such a thought process reflected the attitude that supply could follow only sequentially in the wake of demand; heavy industries would, thus, follow the process of development, catering to the demand generated. To this, Preobrazhensky effectively replied that peasant demand in no way constituted a barrier to industrial expansion. Development of heavy industry would generate its own demand for the products of industry. One had only to conceive investment in heavy industry leading the process of development rather than passively following it in the wake of demand for industrial products.

It was, thus, that Preobrazhensky fervently agitated for a large volume of investments channelled overwhelmingly into Department I by means of a pumping over of surpluses

from agriculture. It may be noted here, that though industrialisation, per se, was necessary to "catch up" with the west, it was, to Preobrazhensky, an intrinsic part of the general historic task facing the proletariat in a predominantly agricultural country, and, moreover, was necessary to consolidate the political power of the numerically weak working class. It was on this broad canvass that Preobrazhensky had charted his course of industrialisation. It has to be borne in mind that Preobrazhensky's theory of primitive socialist accumulation ^{was} based on his acceptance of the theory of socialism based on ^{The} proletariat only. This was the orthodox Marxist position. Unfortunately the role of the peasantry in backward countries in transition to socialism was not at all clear at this time. Preobrazhensky's analysis reflected a limited perspective, as it was constrained in the then existing framework of Marxism. Here it may be noted that Bukharin's horizons were much wider, in that, the peasantry had a well defined role to play in the strategy he advocated.

3.4 Bukharin

Balanced Growth : Caution & Conciliation

As we have already stated (page) industrialisation relying mainly on internal resources was the primary goal of Bukharin's strategy too. He, like Preobrazhensky, recognised the need of a transfer of resources (a pumping

over) from the agrarian to the state industrial sector. However, political and ethical considerations tempered his economic policy more than any one else.³⁸ How much and to what extent to take from the peasantry, by what methods, and how to receive the most favourable result - these were the questions to which he devoted his main efforts. In the process, he evolved a strategy for balanced growth amidst an essentially free market environment. Any policy that risked a conflict with the peasantry and undermined the "Smychka" was to him untenable, as it would lead to civil strife and disaster. And this, he contended, was precisely what the left policies portended. It was the historic task of the new regime to unveil "a new era in the relationship between the city and the village, an era which marks the end of the systematic lag of the village, the 'idiocy of village life', which lays the foundation of the course aimed at the abolition of the polarity between the city and the village...leading it (village) out of the confines of the historical wings on to the proscenium of economic history".³⁹ Politically the "Smychka" was inviolable.

Economically, any rapid unbalanced advance of industry would "develop at the same rate a record demand for industrial goods and would not be able to satisfy it". Bottlenecks would be created as a result of

a) incorrect proportions between the branches of industry itself,

- b) incorrect proportions between the growth of industrial production and the growth of capital investments,
- c) shortages of vital raw materials.⁴⁰

The absorbtive capacity of the economy, too, would pose a definite limit to the quantum of investment that could be productively employed.

"The over extension of capital", in his view,

"1) will not be paralleled by the actual constructive activity of a corresponding size.

2) will inevitably cause, after a lapse of time, an interruption of projects already started.

3) will exert, in many directions, (unfavourable) effects on the other lines of production.

4) will aggravate the goods famine all around.

5) will eventually retard the tempo of development."⁴¹

These were the lineaments of Bukharin's critique of a strategy emphasising the unbalanced and intensive growth of industry to the detriment of agriculture, or for that matter, the growth of any one sector at the expense of the other.

"The opponents of industrialisation object to any withdrawals, even of a part of the surplus product, it, to any "transfer". But in that case the rate of growth of industrialisation is slowed down. The Trotskyites determine the magnitude of the transfer within the limits of what is "technically attainable" (i.e. going actually beyond the

limits of the surplus product). It is clear that in such a case there is no question of the development of agriculture or of its grain producing branch, which is necessary for the development of industry. Here the truth lies in the middle."⁴²

Further "in allocating resources within industry (and with respect to capital construction, within the whole socialised sector) one must attain an all round account of all factors which determine "a more or less crisis free development", a more correct combination of the branches of industry and the branches of the socialised sector".

Inter dependencies, between and within sectors was the key element underlying Bukharin's strategy.

Accumulate, however, the economy must. This accumulation was to be within manageable limits and proportions, without assigning a preponderance to any one sector. The rural and urban sectors were parts of "a single organism" whose fortunes were inextricably interlinked. Interdependencies would cause the disproportionate growth of the sector to halt or even retrogress the growth of the other, may be of itself, and, of the system as a whole. Bukharin recommended a gradual expansion of all sectors, each maintaining a proportionate harmonious link with each other. This could be achieved by compressing the capital requirements of planned expansion; i.e., by rationalising the set up, and employing all out measures to best economise and utilise the available

and growing capital more fully and efficiently.

He advocated

- 1) an increase in the efficiency of construction work.
- 2) better investment planning - i.e. a conscious channelling of investments in the right direction which would maximise the level or the growth of output given the domestic factor proportions; capital, being the main constraint.

The vast potential of careful planning lay

- a) in choice regarding the pattern of output to be produced and activities to be chosen to obtain the best results - e.g. a shift to animal husbandry and gardening would relieve pressure on land, provide employment and increase production. This would be planning the vector of outputs to be produced.
- b) the dispersal of knowledge and the introduction of better methods of performing activities. These could result in spectacular improvements in productivity and increases in output without consuming any significant quantities of capital.
- c) the coordination of industries so that they could grow, each mutually reinforcing the other rather than serving as a bottleneck in another's expansion.

Efforts at the ex-ante planning and coordination of the economy could go a long way in increasing productivity, output and in ensuring growth over time.

3) a decrease in the working hours, thereby improving the shift coefficient, leading to increased productivity and to larger employment.

4) managerial changes to boost the efficiency of enterprises.

5) the speedy completion of investment projects on hand. This would reduce the freeze coefficient, lock up scarce capital for a shorter time, ensure earlier, the flow of output from the project, thereby greatly increasing production in the economy.

Reports and recommendations conjured up by present day commissions and committees as panaceas for growth amidst scarce capital are redolent of these very proposals mooted over fifty years ago. The quest for efficiency; concern with investment criteria, regarding both, the choice of the pattern of output and the choice of technology to produce the given vector of outputs; the ex ante coordination of decisions; the avoidance of waste; managerial revamping - are expected to and are capable of producing spectacular increases in productivity and output. It may be noted here, that this increase in production, if obtained, and in productivity, if maintained, would not be a once and for all increase. It will result in growth compounded on a larger base. These efforts to increase the productivity of capital were to be supplemented simultaneously, by efforts to increase the rate of savings; i.e. by efforts to mobilise a large quantum of

resources.

Bukharin pinned his hopes on

a) The growing profitability of socialist industries.

This was to result from decreasing unit cost of the output, as well as increased sales resulting from lower prices, i.e., an increased turnover in the economy. (He assumed that the demand for industrial goods was highly price elastic.)

b) New revenues from progressive income tax.

c) Voluntary savings in Soviet banks.

Implicit in these recommended measures for resource mobilisation was the vision that the growth of the economy would take place "hand in hand with the development of the peasant economy" within an essentially free market environment, retaining the relations of production of NEP. Bukharin envisaged a "growing into socialism through exchange", moving from "circulation to production". The increase in turnover, growth and production were to be on the basis of the "strengthening of the internal market" which would be stimulated by peasant demand; and, therefore, the call to the peasantry, later retracted, to "enrich themselves". In fact Bukharin gave more than a normal emphasis on turnover as the means to accumulation.

The pricing policy such an outlook demanded was one favourable to agriculture. Low industrial prices would stimulate peasant demand, result in larger sales and consequently higher total profits (assuming a high price

elasticity), which could then be the basis of accumulation. Maximising output, more intense use of capital, rationalisation etc., would make possible a lowering of unit costs in industry. This would sustain and vindicate the policy for low industrial prices; reciprocally the lure of cheap industrial goods would spur the peasantry towards increased productivity and larger production - leading to a virtuous spiral of prosperity.

Such a pricing policy would have the added virtue of keeping at bay the dangers of decay, bureaucratic degeneration and monopolistic parasitism inherent in the domination of the economy by state monopolistic enterprises. It would ensure as well, a more efficient utilisation of resources. The profits that would arise would not be "cartel superprofits", but rather, minuscule profits per unit, resulting from a larger turnover of a growing economy. As one of the mainstays of accumulation, it would have a greater dynamism built in into it; and this would make the difference.

Bukharin's idea of development is reflected in the assertion that the economy would ride into socialism "on the peasant nag". The peasants propelled by initiative and by benevolent state guidance would seek to expand their holdings and extend their range of economic activities, which would be possible only through cooperation. This would lead them to "move closer to the state sector, join with industry, and finally become integrated with the economy of the towns

to form a single planned industrial cooperative economy. ...By the time it came about, the peasantry initially more backward would have changed in character and become an integral part of the proletariat."

Cooperation would instill socialist values in the peasants and would educate them. Socialism should not be imposed upon an unwilling and ignorant peasantry, rather, its superiority demonstrated. This would endear the peasantry to the regime and to socialist values and aspirations. Socialism "would prevail by virtue of its economic superiority" and this victory "would owe nothing to those zealous administrators who were bent upon imposing on the peasants socialist forms whose superiority had not, yet, been demonstrated." Thus, slowly but surely, the country could march into socialism, in alliance with the peasantry.

3.5

We have presented, so far, three strategies for industrialisation, covering broadly the entire gamut of alternatives available to the economy. We have chosen this categorization because most of the protagonists of the debate fitted, albeit uncomfortably, somewhere within these three strands of thought. These strategies represented one of the first endeavours by man to consciously determine the future path of an entire country, and mould society in the image of a predetermined ideal. It may well be that the magnitude

of circumstance oft brings forth the hero in the man and enables him to rise to the occasion. The 1920s were no exception. The momentous task of rebuilding the entire economic foundation and reconstituting the very social fabric of society, led to a flowering of the latent potential of experts and brought forth a veritable host of talent to meet the challenge.

Ingenious contributions to thought, planning technique and development strategy poured forth from Bazarov, Fel'dman, Strisulin, Sokol'nikov, Saposnikov, Bernstein Kogan, Ioffe, Akulenko, Popov, Litoshenko, Groman, Kondrat'ev, Sharov, Gol'dberg and innumerable others. Of these, we single out, for our purpose, and end with some views of G. A. Fel'dman and G. S. Strisulin for some very definite reasons : Fel'dman was a theoretician of the Gosplan. He presented a model with implications towards the sectoral (capital and consumer goods sectors) allocation of investments. Though he later fell into disrepute, and his theories officially repudiated, the starting impact of his model could not but have been taken into cognizance by the planners as they shifted dramatically towards "super industrialisation". Strisulin was the chief architect of the first five year plan. His ideas, thus, influenced the actual path the economy undertook, more than anyone else's.

3.6 Fel'dman

"The primary objective of this work is to determine the potential volume of consumption of the masses, and its

rate of growth as a function of the structure of the economy"⁴⁶ wrote Fel'dman introducing his report. He presented his model in a form which could be run as a variational exercise relating the growth of consumption in future to investment allocations enlarging productive capacity at an earlier date. Thus it was that "to every (constant) growth rate of consumption in the future as a planning objective, there corresponded a certain relative size of the capital goods sector and hence, a certain proportionate allocation of investment to the capital goods sector at all intervening dates."⁴⁷ The output capacity of productive equipment, in the Fel'dman model was the primary and the more enduring constraint. In such a case, the rate at which productive equipment expands, determines the growth rate of the economy. Productive equipment can expand by investments in the capital goods sector. Ergo, the larger the investments employed to expand the capital goods sector, the faster will investment potential, in general, grow, both absolutely and with respect to total output. Investments devoted to the capital goods sector will, thus, have a growth inducing effect, leading to a cumulative expansion of the country's investment potential. This effect, investments in the consumer goods sector are bereft of.

This was the essence of Fel'dman's model. It had the unambiguous implications that the larger the proportionate allocation of investments to the capital goods sector,

the higher the growth rate will be in the future. It may be noted here, that Fel'dman presented his model "not in terms of the customary antithesis between growth and consumption, but in terms of the necessary condition for achieving a given and desired growth rate of consumption in future years".⁴⁸ He visualised a "building ahead of demand", and conceived the capital goods sector as leading the process of development, rather than following it in the wake of demand created for it.

The Model

The model was presented in terms of a closed economy. Taking Marx's scheme of simple and expanded reproduction as the starting point, Fel'dman divided the economy into two sectors.

1) The producer goods sector which he termed Category I.

2) The consumer goods sector - Category II.

His original aim was to modify the Marxian scheme in such a way that Category I includes all capacity increasing activities and Category II included all activities that merely sustained output at the current level.⁴⁹ The key to economic growth, in such a categorization, lay in the capacity of Category I. If Category I was small, there was a possibility that an increase in the saving rate would not translate itself

into increased investments because of the inability of Category I to produce the required capital goods. Though such a division was conceptually attractive, it was not possible to actually classify the economy in such a manner. Feldman had to recant, and, in his final version, went back to a more or less traditional classification and defined

1) Category I to be the producer goods sector, producing all capital goods for both categories and

2) Category II to be the consumption goods sector producing all consumption goods including the corresponding raw materials.

In what follows, we give the presentation exegeted by Domar and assume no depreciation and no lags.

Let K_1 , K_2 & K ($K_1 + K_2 = K$) represent the existing capital stock of the two categories and of the economy as a whole.

Let V_1 , V_2 & V be the incremental capital output ratios for the two sectors and for the economy as a whole.

It is assumed, a la W. Athur Lewis, that "labour is available in any quantity and composition".⁵⁰ Thus, capital is the only limiting factor in the growth process; and in the presence of fixed output coefficients for the two sectors, the total output of consumption and investment goods depends upon the productive capacity of the two sectors.

If Y_1 and Y_2 ($Y = Y_1 + Y_2$) be the outputs of the two categories, then

$$Y_1 = \frac{K_1}{V_1} \quad \text{and} \quad Y_2 = \frac{K_2}{V_2}$$

Now Y_1 , the output of Category I, represents the rate of net investments, I , in the economy. These investments, i.e., the output of Category I, may be apportioned between either of the two categories, however, once installed, the existing capital cannot be shifted from one category to the other. If a proportion, γ , of the net investments is allocated to Category I, then, the proportion $(1 - \gamma)$ will be allocated to Category II. Thus, I , the rate of net investment in Category I will be $I_1 = \gamma I$, and $I_2 = (1 - \gamma)I$.

γ is flexible and is the key variable in the model.

Now, the rate of change of overall investment will be given by the rate of change of the output of Category I.

$$I = Y_1 = \frac{K_1}{V_1}$$

Thus

$$\frac{dI}{dt} = \frac{dY_1}{dt} = \frac{1}{V_1} \frac{dK_1}{dt}$$

The rate of change of capital in Category I, $\frac{dK_1}{dt}$ is equal to I_1 .

$$\frac{dK_1}{dt} = I_1 = \gamma I.$$

Substituting we get

$$\frac{dI}{dt} = \frac{1}{V_1} I_1 = \frac{1}{V_1} \gamma I$$

hence

$$\frac{1}{I} \frac{dI}{dt} = \frac{\gamma}{V_1}$$

This is a differential equation. Solving it we get

$$\text{Log } I + Z' = \frac{\gamma}{V_1} t + Z''$$

$$I(t) = e^Z \cdot \left(\frac{\gamma}{V_1} t \right)$$

$$I(t) = I_0 \cdot \left(\frac{\gamma}{V_1} \right) t$$

putting $I_0 = 1$.

$$I(t) = \left(\frac{\gamma}{V_1} \right) t$$

Total investment, thus, grows at a constant exponential rate of γ/V_1 .

The time path of consumption (C) and national income (Y) are derived to be

$$C = C_0 + \left(\frac{1-\gamma}{\gamma} \right) \frac{V_1}{V_2} \left[\left\{ e^{\left(\frac{\gamma}{V_1} \right) t} \right\} - 1 \right]$$

$$Y = Y_0 + \left[\left(\frac{1-\gamma}{\gamma} \right) \frac{V_1}{V_2} + 1 \right] \left[\left\{ e^{\left(\frac{\gamma}{V_1} \right) t} \right\} - 1 \right]$$

These time paths capture the essence of Fel'dman's model. The simple conclusion that follows is that an increase in γ , the fraction of current investment allocated to Category I, will eventually increase the rate of growth of investment, consumption and national income over what they otherwise would have been.

Various corollaries may be derived from the above model, and they lead on to rather interesting results which have a direct bearing on policy matters.

γ plays a crucial role in affecting (positively) the rate of capital formation on the economy, and ipso facto, the savings rate. The relation between the marginal rate of saving (α') and γ may be derived to be

$$\alpha' = \frac{\gamma V_1}{V_1 - \gamma(V_1 - V_2)}$$

In the not very improbable case where $V_1 = V_2$

$$\alpha' = \gamma.$$

In this case ($V_1 = V_2$), regardless of the initial

rate of investment, (provided it is positive), the mere act of distributing investments between the two categories will lead, *coeteris paribus*, eventually, to the stabilisation of the investment rate at a level equal to γ . This Domar has demonstrated by simulating further growth rates of α (the average propensity to save) over time for given α_0 , γ and V .

Assume $V_1 = V_2 = 3$.

t	$\alpha_0 = 0.10$	$\alpha_0 = 0.20$
	$\gamma = 0.30$	$\gamma = 0.50$
0	0.100	0.20
1	0.107	0.22
2	0.114	0.24
3	0.121	0.26
4	0.128	0.28
5	0.136	0.30
10	0.173	0.39
20	0.236	0.47
30	0.273	0.50
50	0.296	0.50

Source: E. Domar, *Essays in the Theory of Economic Growth*, Oxford, O.U.P., 1957.

We here observe the Fel'dman model in operation. Given a saving rate of 10%, the economy, within 10 years, attain a saving rate of 17.3 per cent, and within 20 years, a rate of 23.6 per cent, by merely allocating 30 per cent of its total investment to Category I. The second set is worked out where the initial saving rate is 20 per cent, and 50 per cent of investment is channelled into Category I. In just 10 years the saving rate doubles to 39 per cent, and by the 20th year touches 47 per cent. The fraction devoted to Category I, under the given assumptions, constitutes an upper limit to the rate of investment in the economy.

This implies, that given a policy objective of attaining an investment rate of α per cent, it may be achieved (eventually), by allocating α per cent of total investments to Category I, or a larger proportion for a shorter period; the time period being determined by the initial rate of savings in the economy.

With respect to consumption, it may be noted, en passant, that increasing γ will not lead to a fall in total consumption or even consumption per capita of the population, though it may lead to a fall in consumption per employed worker. "Total consumption is bound to rise so long as any part at all of the investment is devoted to Sector (Category) II; and it is a misunderstanding to suppose that a rise in γ must entail a fall in consumption. The existing volume of

consumption is, indeed, determined by the existing productive capacity of Sector (Category) II; it is thus the legacy of past history which cannot be modified in a retrograde direction unless there is an actual disinvestment in this sector. What is affected by the size of γ is the destination of new additions to productive capacity; thereby is decided whether expansion shall take place in Sector (Category) I or Sector (Category) II."⁵¹

We have, here, charted out the bare essence of Fel'dsman's model. Being a model, it abstracted from reality, and was based upon a number of assumptions: a closed economy, constant prices, capital as the only limiting factor, the absence of lags, production carried out independent of consumption, the absence of bottlenecks, absence of technological innovations. We have also neglected changes in productivity resulting from changes in organisation, training, experience, and social climate, etc. The model was couched in the long run and was hence unfettered by the immediate pressing problems of the day. Nevertheless, its impact was dramatic. Though officially disregarded, it played an important role in the formulation of the actual five year plan by Strimulin, in providing a very cogent basis for, and formalising the notion of, a strategy giving investment priority to heavy industry.

Fel'dsman further contended that a reorientation in the criteria determining project choice was imperative.⁵² The

objectives of the New Economic Policy were limited to achieving a restoration of the economy. The restoration having been achieved, the horizons now widened considerably. Now, one had to think with the long run perspective in view. This thinking had to be translated into action; more specifically, in adopting a new criterion for undertaking new investments. The investment criteria followed hitherto, emphasised the need to minimise the use of capital per unit of output. It involved investments in the expansion of existing capacities, modernisation programmes and similar "crumb collecting" activities. This Feldman repudiated. It was a myopic and static criterion. In a dynamic context, the criterion of the "reinvestible surplus", which he proposed, would mobilise maximum resources for accumulation and was thus, more suitable. This criterion was given by:

$$\frac{\sum_{t=1}^n P_t Q_t - \sum_{t=1}^n (C_t + N_s)}{K} = \text{max.}$$

Where

- 1...n Designate the number of years that enter into the period under considerations
- Q Volume of production in physical terms
- P Price of a unit of output of this production
- C Current expenses + Depreciation of fixed capital

W_s	Total wages
K	Total investments
$(PQ-C)$	Represents the total value added

According to this criterion, projects which maximised the surplus, which in the socialist state could be fully reinvested, had to be given priority. The influence of the project on the rate of capital accumulation was to be of the essence. Relatively capital intensive projects which minimised the use of labour and thus the payment of wages, would allow for a larger reinvestible surplus and were hence more desirable. The basis of this criterion was to provide further units of labour with as much capital as possible, in order to improve labour productivity. An implication (Leninist) inherent in such a formulation was that it is not the productivity of capital, but the productivity of labour which is the decisive factor affecting the choice of investment.

This criterion, however, ignored the acute scarcity of capital prevalent in the Soviet economy of the 1920s, as well the problem of unemployment. Fel'dman claimed that such a project choice would, in the short run, no doubt, aggravate the difficulties of the hour; in the long run, however, the application of such a criterion would lead to an unprecedented growth in investment and capital formation, which would yield sufficient employment opportunities, relieve these problems

and enable the country to "overtake and surpass" the highest productivity indices of capitalism.

3.7 Strisulin

Strisulin has to a large extent been ignored by commentators, a fact, which is borne out by the acute paucity of any materials on his views and ideas in English. A brief survey of his views is imperative, not only for their original contributions to planning technique and development thought, but by the very virtue of his being the chief architect of the celebrated first five year plan. His views were more than anyone else's moulded Soviet structure and history along a definite pattern.

The problem he posed was thus "...having only a very limited amount of roubles for capital investments, we had to decide where these could be invested with the maximum effect to increase the general level of labour productivity..."⁵³

And the task facing the economy was, to him, one of "deliberately creating a new future";⁵⁴ one of restructuring the entire economic and social foundations of the nation, engendering a new attitude divorced absolutely from the past; the task was one "involving the engineering of new social patterns";⁵⁵ in short a task of creating "a brave new world".

Agriculture was unequal to this task. Strisulin categorically rejected all strategies with an agrarian bias,

including that of Basarov aiming at the industrialisation of agriculture. If increase in labour productivity was the immediate and the more enduring aim, industry alone could achieve it. "The crux of the matter is that agricultural machines... are not in use the whole year round but only between 11 and 17 days of the entire season... This being so, how is it possible to equate machines that double the productivity of a worker in industry and those in agriculture?"⁵⁵

Investments in agriculture, thus, could not constitute a true basis for industrialisation.

"The representatives of the (agrarian) deviation protest when accused of it and claim to be the most ardent partisans of industrialisation. Even Comrade Shanin said that industrialisation was necessary, but it should be started from the other - meaning agrarian - end. Now if people like Shanin and Kondrat'ev wish to call themselves "industrialists" and us the "super industrialists", it is their personal matter. But we still prefer to call a cat a cat..."⁵⁷

By this Striaulin meant, that if industrialisation were to take place, it should be started as industrialisation, on a large scale and now. As Macbeth put it "If it were done, when it is done then it were well it were done quickly".⁵⁸

Rejecting the agrarian "deviation" he claimed that the development of the Soviet economy was possible only on the basis of new technology, and on the basis of a well

defined infrastructure. To this effect he proposed a course of large scale industrialisation and a massive urbanisation programme.

With respect to industrialisation, he came up with a peculiar notion : the industrialisation undertaken should be of the "intensive type".

Extensive industrialisation, i.e. a broadening of the capital base, was, in his Schema, self defeating. An attempt to industrialise every sector would involve a dispersal of investments leading to a "degradation of the productive forces of society".⁵⁹ Such a strategy would further involve slow technological progress, and the increase in labour productivity would fail to be commensurate with the increase in overall investments. It would not instill a dynamism into the industrial structure; such a course would perpetuate stagnation. The economy would wobble, in the nature of a rocking chair, to no effect, condemned to rock in the same place. Industrialisation undertaken should necessarily be of the intensive type variety, incorporating the most modern techniques. The key to economic growth would be technology, innovations and the increase in outlay of capital per worker. This was the criterion of increase in labour productivity, that he advocated with respect to the nature of investment decisions.

Here, a clarification on the "intensive" nature of industrialisation may not be altogether otiose. We should note that the question of the intensity of any particular

investment - i.e., the choice of technical form of investment is quite distinct from the issue of how investment is to be distributed between sectors (K&C). Different considerations apply to these two issues and "a decision to devote a large (or small) proportion of investment to capital goods industries by no means implies that one must choose a high (or low) degree of capital intensity for particular investment projects."⁶⁰

Having clarified this point, we proceed. This proposition of intensive industrialisation drew upon Striaulin's head the wrath of Shasin, Bazarov and Ioffe amongst others. Such a development, they claimed, would increase the organic composition of capital in the economy. As a result productivity would decline. Striaulin refuted these charges as misinterpretations of Marx (Capital, Vol.III). They were based upon "absolute determinism". It was not possible to determine, a priori, what would be the trend of development of capital output and productivity in the presence of countervailing forces enumerated by Marx, and in the presence of changing circumstances. This criticism (concerning the increase in OCC) along with another, based upon diminishing returns to capital, had no place in the Soviet economy.

Along with the development of technical infrastructure, was to be the transformation of the social infrastructure by

means of urbanisation and social investments.

Urbanisation would automatically follow as a concomitant of industrialisation. Rather than wait for it to follow in a haphazard anarchic manner, it should be planned simultaneously with industrialisation. Urbanisation was, to Strizulin, an "includable social phenomenon",⁶¹ necessary for the economic growth and development of the nation. It would confer a multitude of advantages which would, by far, offset the initial outlay of funds.

Urbanisation would (1) create communal and social services which would help in decreasing the costs of subsistence (food, lodging and livelihood) and (2) would deliver the workers from "domestic slavery", instill new values and liberate energies which could then be utilised "more productively in industry and more humanly in education".⁶²

Along with urbanisation were to be outlays on "social investments", e.g., education. These investments would release the latent energies of society, engender new attitudes and instill discipline - all these are indispensable to collective work. These investments would be an essential source of increasing labour productivity.

Where planning was concerned we here shall not delve into the debate on planning, but shall merely posit some of Strizulin's views on attitudes towards conscious development. His thinking led him to assert the need to "deliberately set

out to overcome the inertia of elemental economic forces and direct them into a different channel".⁶³ This would be possible because the Soviet economy was "entering a new phase of development, with the creative will of the proletariat irresistibly driving a wedge between our past and our future."⁶⁴ It thus would be "ridiculous to premise our forecasting on the insutability of ...coefficients",⁶⁵ and thus, in the drafting of plans the idea would be "not to speculate idly and prophesize about what will happen in 5 or 10 years, but...to frame a definite set of economic assignments in the sphere of socialist construction".⁶⁶ To succumb to circumstances would be the way of "the weak, the slaves and the servile";⁶⁷ to surmount circumstance was the path chosen by the strong and the free.

These were some of the views aired by Striaulin. The actual course of development of the Soviet economy, was to a large extent, the embodiment of some of Striaulin's ideas on industrialisation, the pattern of industrialisation, urbanisation and social investments.

3.8

We have presented the main strands of thought that were presented during this period. The action that followed, i.e., the First Five Year Plan, was overwhelmingly in favour of industry. It was formulated in two variants, the initial variant and an optimal variant built upon optimistic estimates of future harvests and economic and political circumstances. Tables 3.1 and 3.2 give some of the plan and plan fulfilment figures.

Table 3.1: First Five Year Plan : Some Figures

Aggregate	1927-28 actual	32-33 first year	Percen- tage increase	32-33 optimum	Percen- tage in- crease
Employed labour force (millions)	11.3	14.8	(30.2)	15.8	(38.9)
Total invest- ments(26-27 prices, milli- ard roubles)	8.2	20.8	(151)	27.7	(288)
National income (milliard roubles)	8.2	44.4	(82)	49.7	(103)
Industrial production (milliard roubles)	18.3	38.1	(130)	43.2	(180)
<u>of which</u>					
Producers goods (milliard roubles)	6.0	15.5	(161)	18.1	(204)
Consumers goods (milliard roubles)	12.3	22.6	(83)	25.1	(103)
Agricultural production (milliard roubles)	16.6	23.9	(44)	25.8	(55)
<u>Consumption</u>					
Non-agricul- tural(index)	100	152.0	-	171.4	-
Agricultural (index)	100	151.6	-	167.4	-

Source: A. Nove, An Economic History of the USSR, London, Allen Lane, 1969, p.145.

Table 3.2: Some Figures of Plan Fulfilment

	27-28	32-33	32
National income	24.4	49.7	45.5
Gross industrial production	18.3	43.2	43.3
Producers goods	6.0	18.1	23.1
Consumers goods	12.3	28.1	20.2
Gross agricultural production	13.1	28.8	16.6
Electricity (100 million kwhs)	5.05	22.0	13.4
Hard coal (million tonnes)	34.4	75.0	64.3
Oil (million tonnes)	11.7	22.0	21.4
Steel (million tonnes)	4.0	10.4	5.9
Machinery (million roubles)	1,822	4,688	7,362

Note: The value units are in terms of 1926-27 roubles.

Source: A. Nove, *An Economic History of the USSR*, London, Allen Lane, 1969, p.191.

CHAPTER IV

CONCLUSION

The significance of the debate arises not merely from the fact that it marked a turning point in economic thought and analysis, but also from the momentous nature of the action that followed the words. (Though not necessarily from the words). The action that followed, (the first five year plan), set the country upon a path that was to affect the lives of millions, and, in the course of time would history and power balance. Few, if any, academic discourses or even political rhetorics, have had such a profound immediate impact upon so large a populace affecting so vast an area.

Towards the latter half of the twenties, attempts were made at drafting long term, five year as well as annual operational plans, an hitherto untried endeavour; and in its novelty and magnitude, one of colossal proportions. In the process a debate raged on the nature and scope of planning between the so called "genetic" and "teleological" schools of thought. The "geneticists" argued that planning was to be circumscribed by the parameters and the objective tendencies prevalent in the economy. In our debate, such thinking could be broadly ascribed to the strategies propounded by Shanin and Bukharin. The 'teleologists', as the epithet suggests,

saintained that the aim of planning was to transform the economic situation and the tendencies inherent in it, i.e., to change the parameters the economy was bound in. Given determination and will no planning target was beyond reach.

It was the teleological approach that triumphed. Gradualism was thrown to the winds and any predilection towards caution was promptly condemned as right deviation. The planners shifted rapidly towards an all out drive for industrialisation, at so rapid a pace that it "staggered the imagination of even the super industrialists.

The First Five Year Plan, 1928-29 - 1932-33 was drawn up in two variants. (Tables 3.1 and 3.2) The plan envisaged rate of investment which would double fixed capital stock in 5 years - a rate of expansion hitherto unheard of. Further, the plan contemplated a 75 per cent rise in absolute real per capita consumption over the quinquennium, though the share of consumption in total national income was to fall from 77.4 per cent to 66.4 per cent.¹ These estimates, however, did not materialise.

For the plan to be successful, it had to be comprehensive. The success of the plan and of the industrialisation programme was dependent upon the stable supply of foodgrain and raw materials from the countryside. Agriculture, however, had remained stubbornly individualistic, and could fall under the purview of any plan only in a perfunctory manner. Stalin decided to solve the peasant problem by eliminating it

altogether. In 1929 he ordered the collectivisation of agriculture. The decision to collectivise was redolent of Juvenal's words "Hoc volo, sic iubeo, sit pro ratione voluntas", i.e., "I will have this done, so I order it done; let my will replace reasoned judgement." Stalin, of course, doing the willing and the judging. The collectivisation was literally "red in tooth and claw", and the brutality with which it was carried out threw the country into turmoil and led to a mass slaughter of the livestock population. By 1932, collectivisation was completed and the 'foundations of a planned economy' had been firmly built.

In retrospect we say that the course the Soviet Union embarked upon in 1929, - the forced tempo of industrialisation did succeed, whatever the costs, in transforming the predominantly agricultural, backward country to a major industrial power almost in isolation. The Soviet Union has in the past achieved a rate of growth, given the circumstances with few equals, and a complete transformation of the institutional setting. State industry, and collective and cooperative farms and cooperative trade have come to be the mainstay of the economy. This was the momentous impact proceeding from the discussion of the 1920s.

On the academic level, the debate marked a turning point in economic thought and analysis, in that it turned attention away from what is to what ought to be, and how to achieve it. Upon the 1920s, the exponents of classical political economy

and of economics had been concerned with an attempted description of the economy; with propounding theories that explained economic phenomena; and, on the "grand" level were content with dabbling with escatological pronouncements.² A conscious determination of the economic future found no scope in the nature and scope of economics. "Political economy or economics", said Marshall, "is the study of mankind in the ordinary business of life...".³ The Soviet industrialisation debate focussed on the extraordinary task of changing the parameters the economy was bound in.

The debate, though doused in polemical spice, and, in parts, "impatient of the finer touches of academic discourse", nevertheless, contained seeds of issues and strains of practical wisdom which the distractions of the Neo classicals stumbled upon a quarter of a century later. The income and capacity generating effects of investment, as expounded by Harrod and Domar, had already been perceived and discussed in real world situations during the debate. Models of growth, formally identical with the Mahalanobis model, had been presented (by Fel'dman) to buttress strategies of development.⁵ Planning techniques, national income balances, input output analysis had been pioneered and developed during this period to a remarkable extent.

Hotly debated topics in development economics - the scope of planning; the role of institutions as vehicles of

development and social change; the role of accumulation; the role of the marketable surplus in real capital formation; the role of taxation and inflation as instruments to mobilise and enforce savings; investment criteria pertaining to the pattern of output to be produced as well as concern with "appropriate technology" to produce a given vector of goods; strategies for development amidst "unlimited supplies of labour" (W.A.Lewis);⁶ strategies for balanced growth (Hurkse, Rosenstein-Rodan);⁷ strategies for unbalanced growth (Hirschman, Streeten);⁸ these topics echo the issues raised and the solutions mooted during the Soviet industrialisation debate.

Further, the rationale of the investment criteria which were discussed in the twenties, and later adopted, came to be appreciated in the west only after Galenson and Leibenstein (1955) independently arrived at the same result, in the context of development. In the Soviet Union, heavy industry was an inefficient, capital intensive, high cost producer, and agriculture, with a large reservoir of labour was relatively the low cost producer. The traditional investment criterion, stressing the maximum return on capital dictated investments into light industry and agriculture. Shanin and Soko'lnikov were at pains to emphasise this. This criterion was repudiated in the discussion of the twenties and the intrinsic merits of the criterion of "reinvestible surplus" as given by Fel'dman (or the marginal per capita reinvestment quotient as Galenson & Leibenstein put it) deemed more suitable in a dynamic

context. What is more significant, this criterion was put into practice in some form or the other.

The Galenson Leibenstein formula is given by

$$r = \frac{p - wv}{c}$$

where

- p - The net output (value added) from the investment
- e - The number of workers attached to the investment
- w - The sum total of the average wage
- c - The capital invested

This criterion is identical with that proposed by Feldman (page 96).

The basis of this criterion is to maximise "per capita output or average income, either over time or at some time in the future."⁹ This criterion was a total rejection of the investment criteria followed hitherto, where maximising immediate output was the main considerations. It, thus, implied the choice of projects with a much higher capital intensity than if the objective was to maximise present consumption.

All these ideas taken together, constituted a total break from habitual and traditional modes of thought, a difficult task indeed (as Keynes was to note in another context, a few years later).

First, the emphasis shifted into long run growth. Secondly, static policies oriented towards estimating the immediate effect, were discarded and in favour of dynamic policies, where future long run effects were of the essence.

Thirdly, the notion of balanced expansion, which would result in the simultaneous development of all sectors was abandoned in favour of a symmetric industrialisation. Fourthly, the economic philosophy of least cost was replaced by a new one recommending high costs and maximum sacrifice to attain the development of the economy. This change of conceptions gave rise to a new economic calculation whose rationale is more appreciated by the developing countries of to-day, in embarking upon or sustaining a programme for industrialisation and development.

What was regarded as the central problem of economics - securing an optimum allocation of resources between alternative ends, with the resources and ends as given, accords neither with the aims nor aspirations of developing countries. The larger problem, by far, is increasing the quantity and quality of the resources and outputs. The problem concerns the movement from one economic situation with its given combination of resources to another qualitatively and quantitatively better one.

To do this, one has to discover the possible routes the economy can take. This is not a problem of wishful thinking

and of the invisible hand of the market. The steering of the economy in a particular direction needs planning and implies a cost. It involves an awareness of the nature and potentialities of the economy, and the alternatives available to it. The alternatives open to an economy to-day have a bearing upon the potentials of the future. This relationship between the alternatives open to-day and the potential alternatives available at a future date, has a bearing upon the choice between alternatives to-day. It was precisely on these relationships that the protagonists of the debate focussed their attention.

APPENDIX I

THE SCISSORS CRISIS

The Scissors crisis was a crisis of prices. It represented a movement in the terms of trade between agriculture and industry : from a situation, initially favourable to agriculture (1922), the terms of trade moved dramatically against it (1923) - so unfavourably, that it was expected that the peasant would react to the adverse terms of trade by drastically reducing his agricultural marketings. Such a situation constituted a potential threat to the stability of the economy and of the regime. Trotsky, in his report at the Twelfth Party Conference, represented the movement of the price indices of agriculture and industry on a graph plotted against time. The divergent trends looked like two blades of an open pair of scissors; hence the epithet - "scissors crisis".

Its causes were manifold. By 1923, both agriculture and industry had revived, agriculture more than industry (Table). Industrial production had reached 35 per cent of its 1913 level. In agriculture, recovery had taken place to a far greater extent, and though the marketed surplus as a proportion of the total produce was considerably lower, in absolute terms it constituted 60 per cent of the pre-war

marketed surplus. Compared to pre-war levels, agricultural produce was more plentiful than manufactures by about 70 per cent." It was inevitable that industrial prices would rise in relation to agricultural ones. Strimulin, in fact, calculated that on the basis of costs in labour time, a unit of industrial produce embodied a real cost 80 per cent greater than that of a unit of agricultural produce over prewar levels. The problem, however, lay in the fact that the shift in the terms of trade between industrial and agricultural commodities was far in excess of this ratio. In October, 1923, when the "scissors" were at their divergent widest, the indices of industrial to agricultural prices stood at 3:1.

Appendix Table 1: Industrial Prices as a Ratio of Agricultural Prices (1913 Relationship = 100)

	Wholesale	Retail
October 1922	131	161
December 1922	141	167
February 1923	169	180
May 1923	215	223
July 1923	202	211
September 1923	294	280
October 1923	310	297

Source: A. Nove, An Economic History of the USSR, Allen Lane, 1969, p.95.

Various reasons were advanced for this disparity between agricultural and industrial prices. First, credits were granted to industry on a liberal scale to supplement their working capital. This had followed largely as a reaction to the stringent credit policies enforced during the early NEP period. Credit availability enabled industry to withhold and stockpile finished products; in the process pushing up their prices. Second was the monopoly position industry commanded. After the 1921 "rasbazarivania" crisis, industrial trusts had organised themselves into syndicates to avoid interneecine competition. Third, state industry was inefficient and costs were high. And finally, the state, being the principal purchaser of foodgrain, sought, by virtue of its monopsonist position, to purchase grain at low prices. These factors, together, led to the acute disparity between agricultural and industrial prices.

The terms of trade (industry and agriculture) standing 3:1, represented a crisis point. The government did not wait for the situation to remedy itself, but took immediate corrective measures. Pressure was exerted upon industrial enterprises and trusts to lower costs, and a financial squeeze was applied. After October 1923, industrial prices started to decline. The ratio between the agricultural price index and the price index for textiles, which was 1:4.8 in October 1923, rose to 1:1.8 by October 1924. And, the rise in agricultural prices that followed the harvest of 1924, brought the scissors to a close by midsummer 1925.

APPENDIX II

GLOSSARY

Artel	Any cooperative work group, but particularly an agricultural cooperative.
Batrak	An agricultural wage labourer employed by private peasants or by their communities. During NEP, the agricultural wage labourer employed throughout the year by the sovkhozes or by other state enterprises was no longer a batrak but an 'agricultural workers'.
Bednyak	A poor peasant.
Dvor	The peasant household, both a social and an economic unit.
Glavk(i)	Chief Committee(s); sub-departments of the Supreme Economic Council, or boards to administer an industry or a branch of industry.
Gosbank	The State Bank.
Gosplan	State economic planning commission ; a permanent expert commission attached to STO, instituted in 1921.

Gubernia	An administrative unit, or province.
Gubsovnarhoz	The economic department of the Gubernia Soviet ; or provincial economic council.
Kolkhoz	Collective farms.
Kulak	Literally "fist"; a rich peasant employing labour, making a living by trading and/or acting as village usurer.
Khozraschet	Commercial accounting.
Narcomfin	People's commissariat of finance.
Narcomprod	Peoples commissariat of supplies.
NEP	The New Economic Policy inaugurated by Lenin in 1921.
Nepman	Private trader or entrepreneur of the type that appeared on the scene as a result of NEP.
Prodrazverstka	The imposition of tax in kind in quantities prescribed by the authorities.
Perekachka	Pumping action; describes the extraction from the peasant sector of the resources required for industry.
Raznychka	Breach, political term for the breaking up of an alliance.

Serdnyak	Middle peasant.
Smytshka	Refers to the alliance between workers and peasants.
Sovkhoz	State farm.
Sovnarkom	Council of people's commissars.
STO	Council of labour & defence; supreme authority in the economic sphere.
Thermidor	9th Thermidor, (July 27) 1794, when the Jacobins were overthrown.
Trust	An industrial administrative unit, grouping a number of factories.
Vendee	District in the west of France which was the seat of a royalist peasant rising in 1793 during the French Revolution, led by priests and nobles and marked by considerable brutality.
Vesenkha	Supreme Economic Council.

APPENDIX III

TABLE OF APPROXIMATE EQUIVALENTS

1 arshin	=	2 ft.
1 chervonet 2 (gold)	=	1 £ sterling (gold)
1 desyatin	=	2.7 acres
1 pood	=	36 lbs.
1 verst	=	0.66 mile

NOTES AND REFERENCES

CHAPTER I

1. "If a definite level of culture is required for the building of socialism...why cannot we begin by first achieving the prerequisites for that definite level of culture in a revolutionary way, and then, with the aid of the workers' and peasants' government and the Soviet system, proceed to catch up with other nations?"
Lenin, quoted in A. Erlich, The Soviet Industrialisation Debate. Cambridge Mass : H.U.P., 1960, p.7.
2. Spulber N., Soviet Strategy for Economic Growth. Bloomington : I.U.P., 1964, p.56.
3. Strategy : "...the science and act of employing the political, economic, psychological and military forces of a nation...to afford the maximum support to adopted policies in peace or war..."
Webster's New International Dictionary.
4. Maurice Dobb, Soviet Economic Development Since 1917. Routledge & Kegan Paul, 1966, p.179.
5. i.e., "Without anger or adulation", Tacitus, Annales, 1,1.

CHAPTER IIWar Communism

1. Altogether, armed detachments of fourteen countries intervened in Soviet Russia shortly after the Brest-Litovsk treaty.
2. Some of the other decrees concerned
 - a) Decrees legitimising workers control on industry.
 - b) The abolition of the old courts and police in favour of revolutionary tribunals and workers' militia,
 - c) The abolition of legal class privileges and titles.
 - d) A separation of the Church and the state.
 - e) The establishment of a legal equality of the sexes.
 - f) Calendar reforms in Feb. 1918.

We may here note that the land decree of November 8, 1917 (NS), was promulgated under pressure from the left social revolutionaries. It, to a large extent ratified peasant seizures of land which had taken place to a large degree.

3. On November 1st, 1917, currency circulation stood at 22.4 milliard roubles. In March 1918, it crossed the 30 milliard mark. On June 1st 1918, it was 40.3

million and on January 1st, 1919, 60.8 million.
 Inflation multiplied "three times in the course of
 1919 and more than four times in 1920. In October
 1920 the purchasing power of the rouble was no more
 than 1 per cent of what it had been in October 1917."
 Maurice Dobb, Soviet Economic Development Since 1917.
 London : RKP, 1966, p.100.

4. Ibid., p.117. For pood and arshin see table of approximate equivalents, Appendix III.
5. E.H.Carr, Socialism in One Country, 1924-1926. Vol.I, London : Macmillan, 1958, p.167.
6. Maurice Dobb, Soviet Economic Development Since 1917. p.103.
7. Ibid., p.104.
8. E.H.Carr, The Russian Revolution from Lenin to Stalin 1917-1929. London : Macmillan, 1979, p.23.
9. Maurice Dobb, Soviet Economic Development Since 1917. p.113.
10. E.H.Carr (1979), p.24.
11. A. Nove, An Economic History of the U.S.S.R. London : Allen Lane, 1969, p.62.
12. P.C.Roberts, Alienation and the Soviet Economy. Chap.2.
13. Maurice Dobb (1966), p.122.
14. E.H.Carr, The Bolshevik Revolution 1917-1923. Vol.II, London : Macmillan, 1952, p.274.

15. Lenin, Quoted in A. Erlich, The Soviet Industrialisation Debate, 1924-1928. H.U.P., 1960, p.5.

NEP

16. Kritsman, Quoted in Carr, The Bolshevik Revolution. Vol.II, p.270.
17. A. Erlich, The Soviet Industrialisation Debate. p.3.
18. Lenin, Quoted in Erlich (1960), p.6.
19. Maurice Dobb (1966), p.127.
- 20.
21. Lenin, Quoted in Erlich (1960), p.4.
22. Quoted in M. Dobb (1966), p.130.
23. E.H.Carr, The Bolshevik Revolution. Vol.II, p.282.
24. E.H.Carr.
25. Quoted in M.Dobb (1966), p.140.
26. E.H.Carr, The Bolshevik Revolution. Vol.II, p.351.
27. Lenin, Quoted in Carr, B.R., Vol.II, p.299.
28. E.H.Carr, The Bolshevik Revolution. Vol.II, p.299.
29. Ibid., p.303.
30. Ibid., p.309.
31. Ibid., p.304.
32. A. Nove, (1969), p.103.
33. Carr comments : "In so far as war communism was thought of as an abberation dictated by military and not

economic necessities, by the requirements of the civil war, and not by those of socialism, NEP was a retracing of steps from a regrettable though no doubt enforced, digression and a return to the safe path which was being followed before June 1918. In so far as war communism was treated as an overrash, over enthusiastic dash forward into the higher reaches of socialism, premature no doubt, but otherwise commendable, NEP was a temporary withdrawal from positions which it had proved impossible to hold at the moment, but which would have to be regained - and regained sooner rather than later. The unspoken premise of the first view was the practical necessity of taking account of a backward peasant economy and peasant mentality; the unspoken premise of the second was the need to build up industry and not further depress the position of the industrial workers who formed the main bulwark of the revolution." (The Bolshevik Revolution, Vol.II, p.275).

Lenin, the chief architect of NEP, "gave hostages both to the view that it was a desirable and necessary correction of the errors of war communism, and to the view that it would itself have in the future to be corrected and superseded". (E.H.Carr, The Russian Revolution from Lenin to Stalin, p.37).

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35. E.H.Carr, The Bolshevik Revolution. Vol.II, p.22.
36. Moshe Lewin, The Russian Peasant and Soviet Power. London: Allen and Unwin, 1968, p.132.
37. Kritsman, Quoted in Lewin (1968), p.133.
38. Rosa Luxemburg, Die Russische Revolution (1922). Quoted in Carr, Socialism in One Country. Vol.I, p.212.
39. E.H.Carr (1979), p.23.
40. Sokolnikov, Quoted in Carr, Socialism in One Country. Vol.I, p.335. See also The Bolshevik Revolution. Vol.II, p.317.
41. Maurice Dobb, Soviet Economic Development Since 1917. p.216.
42. E.H.Carr, Socialism in One Country. Vol.I, p.212 and Dobb (1966), p.208.
43. Maurice Dobb, Papers on Capitalism Development and Planning. Routledge and Kegan Paul, London, 1967, p.78.
44. A. Erlich, The Soviet Industrialisation Debate. p.35.
45. See Carr B.R., Vol. II, p.293.
46. E.H.Carr, Socialism in One Country. Vol.I, p.98. See also M. Lewin, The Russian Peasant and Soviet Power. Chap.2, & 3.
47. Lewis Carroll, Through the Looking Glass. London : Dean & Sons, p.109.

48. A. Erlich, The Soviet Industrialisation Debate.p.147.
49. Maurice Dobb, Soviet Economic Development Since 1917.
p.179.
50. Ibid., p.145.
51. Ibid., p.147.

CHAPTER III

1. Lev Shanin, "Questions of the Economic Course," in Foundations of Soviet Strategy for Economic Growth, Ed.N. Spulber, I.U.P., 1964, p.212.
2. "Initially investment in fixed capital curtails the supply of goods put on the market....," *ibid.*, p.212.
3. *Ibid.*, p.212.
4. *Ibid.*, p.213.
5. *Ibid.*, p.219.
6. *Ibid.*, p.219.
7. *Ibid.*, p.
8. "As a matter of fact, what will occur is not a diminution but an increase in the supply. A certain inhibition of the rate of industrial development is precisely what should give rise to more abundant industrial supply. This may appear paradoxical, but is nevertheless so." *Ibid.*, p.217.
9. *Ibid.*, p.219.
10. "Thus holding back somewhat in the diversion of resources to industry will, as time goes on, not

only make up for the original slow down...but will result in the positive effects considerably outweighing the negative... For ultimately, the absolute growth of industry will be greater than with the type of development that is based on immediate diversion of resources under maximum forced draft. True... the relative growth of industry will be smaller. This will not be because industry will develop more slowly than with the other pattern (on the contrary, it will develop faster), but because with one alternative agriculture will grow faster still." Ibid., p.220.

11. Ibid., p.214.
12. See Lev Shanin, "The Nature of our commodity shortage," in Foundations of Soviet Strategy for Economic Growth, Ed. N. Spulber, p.208.
13. Ibid., pp.208-209.
14. V. Bazarov, Quoted in A. Erlich, The Soviet Industrialisation Debate. H.U.P., 1960, p. .
15. A. Erlich, The Soviet Industrialisation Debate.p.133.
16. Ibid., p. .
17. Ibid., p. 32 .
18. Preobrazhensky, E. The New Economics. Oxford : Oxford University Press, 1965, p. 39.
19. "The possibilities of the rationalisation of production within the framework of the old technology are approaching exhaustion". Ibid., p.124.

20. Quoted in A. Erlich, The Soviet Industrialisation Debate. p.37.
21. Preobrazhensky, The New Economics. p.279.
- 22.
23. Ibid., p.77.
24. Ibid., p.77.
25. M. Lewin, The Russian Peasant and Soviet Power.
London : Allen and Unwin, 1968, p.157.
26. Preobrazhensky, The New Economics. p.79.
27. A. Erlich, The Soviet Industrialisation Debate.p.
- 28.
29. Preobrazhensky, The New Economics. p.84.
30. Ibid., p.88.
31. Ibid., p.122.
32. Ibid., p.103.
33. Ibid., pp.101 & 103.
34. Ibid., p. See also E.H.Carr, Socialism in One Country. Vol.I, London : Macmillan, Note 1,p.201.
35. Ibid., p.
36. Ibid., p.95.
37. Ibid., p.129.
38. Stephen Cohen, Bukharin and the Bolshevik Revolution.
Oxford : O.U.P., 1980, p.165.

39. N. Bukharin, "Notes of an Economist at the Beginning of a New Economic Year," in Foundations of Soviet Strategy for Economic Growth, p. .
40. Ibid., p.263.
41. N.Bukharin, Quoted in The Soviet Industrialisation Debate. A. Erlich, p.83.
42. N. Bukharin, "Notes of an Economist," in Foundations of Soviet Strategy for Economic Growth, Ed.Spulber, p.261.
43. Ibid., p.264.
44. M.Levin, The Russian Peasant and Soviet Power. London : Allen & Unwin, 1963, p.137.
45. Ibid., p.138.
46. G.A.Fel'dman, "On the Theory of Growth Rates of National Income," in Foundations of Soviet Strategy for Economic Growth, p.174.
47. Maurice Dobb, Papers on Capitalism Development and Planning. London : Routledge & Kegan Paul, 1967, p.110.
48. Ibid., p.109.
49. See E. Domar, Essays in the Theory of Economic Growth. Oxford : O.U.P., 1957, pp.223-261.
50. G.A.Fel'dman, "On the Theory of Growth Rates of National Income," in Foundations of Soviet Strategy for Economic Growth, Ed.Spulber, p.188.

51. Maurice Dobb.
52. Much of what follows, as well as parts of Section 3.7 and Chapter 4 are based upon J.M.Collette, Politique des Investissements, Paris : Cujas, 1964.
53. G. S. Strisulin, "Answer to our Critics," in Foundations of Soviet Strategy for Economic Growth, Ed. Spulber, p.457.
54. G. S. Strisulin, "Perspective Guidelines for 1926-1930," in Foundations of Soviet Strategy for Economic Growth, Ed. Spulber, p.431.
55. Ibid., p.431.
56. G. S. Strisulin, "Answer to Our Critics," in Foundations of Soviet Strategy for Economic Growth, Ed. Spulber, p.457.
57. Ibid., p.457.
58. W. Shakespeare, Macbeth, Act I, Scene vii.
59. J. M. Collete, Politique des Investissements et Calcul Economique, Paris : Cujas, 1964. Translated Dr. K.K.Dasgupta.
60. Maurice Dobb, An Essay on Economic Growth and Planning, London : Routledge & Kegan Paul, 1960, p.60.
61. J. M. Collette, Politique des Investissements, Translation Dr. K. K. Dasgupta.
62. J. M. Collette, Politique des Investissements.
63. G. S. Strisulin, "Perspective Guidelines for 1926-1931," in Foundations of Soviet Strategy for Economic Growth, Ed. Spulber, p.431.

- 64. Ibid., p.432.
- 65. Ibid., p.431.
- 66. Ibid., p.432.
- 67. J. M. Collette, Politique des Investissements.

CHAPTER IV

- 1. Maurice Dobb, Soviet Economic Development Since 1917. London : Routledge & Kegan Paul, 1967, p.235.
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- 3. Alfred Marshall, Principles of Economics. London : Macmillan, 1961, p.1.
- 4. Maurice Dobb, Papers on Capitalism Development and Planning. 1967, p. .
- 5. P. C. Mahalanobis, "Some Observations on the Process of Growth of National Income," Sankhya, Vol.12, 1953.
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