

CENTRAL PLANNING FOR THE
MARKET ECONOMY

VERA LUTZ

An Analysis of the French Theory and Experience

Central Planning for the Market Economy

An Analysis of the French Theory and Experience

Vera Lutz



Longmans

in association with the Institute of Economic Affairs

1969

Contents

<i>Foreword</i> by Sir Paul Chambers	xi
<i>Author's Preface</i>	xv

PART ONE A NEW KIND OF PLANNING

<i>Chapter I. Introduction</i>	3
The rise in popularity of French planning at the beginning of the 1960s—The supposed effect of the Plans in raising the efficiency of investment and the rate of economic growth in France—The new style created by the post-Monnet Plans.	
<i>Chapter II. The Planning Machinery and Methods</i>	10
The planning authorities and commissions—The preparation of the Plan: the sketches, the choice of the 'options', and the 'prediction study'—The attempt to democratise the Plan.	
<i>Chapter III. The Manifold Aspects of French Planning</i>	17
Meanings of 'economic planning'—The tendency to regard central planning as dissociable from interventionism—The detailed 'projection' as the core of the Plan—The unclear distinction between targets and forecasts—The Plan's secondary aspects.	
<i>Chapter IV. The Exogenous Instruments: I</i>	24
Two kinds of instrument, exogenous and endogenous—Importance of a large public sector, extending to industry and banking—The methods of implementation of the Monnet Plan—The long attachment to price regulation; and the development in the mid-1960s of 'contractual price freedom'—Government influence on wage determination—Licensing—Treasury aid for investment finance, and the role of the FDES—Qualitative controls over capital issues and credit—General tax reforms, aimed principally at achieving tax 'neutrality'—Selective tax treatment—Negotia-	

tions and procedures for obtaining benefits offered for conforming with the Plan—Criticism of 'soft' and 'flexible' techniques of intervention.

Chapter V. The Exogenous Instruments: 2 48

The extent of the use of these instruments, and the notion of conformity—The changing degree of interventionism—The 'liberal' interlude after 1958.

Chapter VI. The 'Logic' of the Plan: Original Version 53

Contrasting conceptions of French planning—The use of the terms 'indicative' and 'soft'—The development by M. Massé of the theory of pure indicative planning—The notion of a plan for the market economy—The presumed missing link in the classical theory—Transparency and coherence obtained by 'market research on a national scale'—Collective forecasting seen as a form of integral central planning of the economy—Its designation as 'liberal' planning—Influence of M. Massé's theory abroad—Purposes of comparing forecasts or targets with performance.

PART TWO

THE RECORD OF THE PLANS

Chapter VIII. Comparison of Forecasts or Targets With Performance:
1 67

Problems and methods—The 1st, or Monnet Plan (1947–1952–53)—The 2nd Plan, or first of the 'coordinating' plans (1954–57)—The 3rd and Interim Plans (1958–61)—The 4th Plan (1962–65)—The forecasts of price levels, foreign trade and the labour supply—Political elements in centralised forecasting—Appendix: tables.

Chapter VIII. Comparison of Forecasts or Targets With Performance:
2 96

The coordination aspect illustrated by the record of three Plans—The 'disappointment' of the 4th Plan—The extent of the implementation, exogenous or endogenous, of the three Plans—Conclusion concerning their failure to represent integral central planning—Diagrams.

PART THREE

THE THEORY OF PLANNING FOR THE
MARKET ECONOMY: A CRITIQUE

Chapter IX. The Rationale of Collective Forecasting 107

The assumed responsibility of industry itself for the forecasts—How far the branch forecasts can be said to represent the views of all the operators in the branch—The failure to achieve *intra*-branch, as opposed to *inter*-branch, coordination—The fiction of uniform and fixed forecasting horizons—Elements of concealment and distortion—The potentialities of the forecasting cartel—The seriousness of the obstacles to 'transparency'—The difficulty of 'adding up' different views of the future to form a single view—The incommensurability of subjective probabilities conceived by different persons—The imperfect communicability of views in a competitive system—The fiction of the 'common view of the future'—Conclusion that there is no bridge between the plans of the individual operators and a Plan for the nation.

Chapter X. Centralised Versus Decentralised Forecasting 120

The phenomenon of compensation between different prediction errors, and the case for decentralised forecasting—Robertson's exposition of the classical-liberal, now called the 'German', view—What this view does, and does not, imply—The two views of forecasting in relation to the desirable degree of concentration of industry—The case for, and against, conducting centralised forecasting at an international rather than a national level.

Chapter XI. The Problem of the Market Shares 127

Is there a missing link in collective forecasting?—The excessive simplicity of the 'model' as a possible cause—Indeterminacy on the supply side under the assumption of strictly perfect competition or, more exactly, under that of uniformity of expectations—Conclusion that a 'common view' of the relative shares is a necessary complement to such a view of the size of the total market—The decentralist's conception according to which there is a 'common view' of neither.

Chapter XII. Forecasting Methods and Comparative Economic Systems 135

The incompatibility of a genuine common view of the future (due

to perfect foresight), or alternatively of a forecasting monopoly, with the survival of the competitive, free-enterprise system—Decentralised forecasting as an integral part of such a system—The impossibility of simulating the working of such a system by operating a general computable model—A possible form of ‘convergence’ between the economic systems of ‘east’ and ‘west’, implying for the latter a corporative set-up—The inevitable ‘non-rationality’ of the decentralised system.

Chapter XIII. Public Versus Private Forecasting 144

The danger that official forecasting for private industry may reduce the latter’s initiative and independence—The proper spheres of public and private forecasting, respectively—Official forecasting, or pure ‘indicative planning’, considered as a form of interference with market mechanisms.

Chapter XIV. Summary of Part Three 149

The antithesis between M. Massé’s ‘logic of the Plan’ and the ‘logic of the market economy’—Rejection of the notion of ‘indicative’, or ‘liberal’ planning.

PART FOUR

POSSIBLE FUTURES FOR FRENCH PLANNING

Chapter XV. The Logic of the Plan: ‘New Look’ 153

M. Massé’s reasons for reformulating his theory—The need to re-educate public opinion about the Plan’s significance, and ‘flexibility’—Features of the ‘new look’: the meaning given to ‘realisation’ of the Plan, and to ‘targets’ as opposed to forecasts; the categorical denial that the Plan is ‘imperative’ for the public sector; provisions for revising forecasts, and targets, respectively; and the system of ‘warning signals’—The radical redimensioning of the importance of the detailed ‘projection’, and the implicit renunciation of the claim that centralised forecasting is a form of integral central planning—The recognition given to the ‘German view’ of such forecasting—The insertion, however, in the 5th Plan, of new areas of quantification—An indicative ‘incomes policy’—The formalism of the ‘new look’—French planning as medium-term economic policy.

<i>Chapter XVI. 'Modern Capitalism'</i>	166
The dissatisfaction with indicative planning—The assumed need for sectoral intervention—Methods of intervention classified as 'soft'—The 'concerted economy' and the notion of 'universal participation' in economic decision-making—The 'reform' of private enterprise—The 'contractual economy' and 'contractual planning'—Implications for capital and credit markets—The omnipresence of the State in business—The aspiration towards voluntary corporativism—Sources of support for the new ideas.	
<i>Chapter XVII. 'Classical Capitalism'</i>	178
The spread within French industry of the 'modern management' belonging to 'classical' capitalism—Its presumed importance as a source of rising productivity since the early 1950s—The view that further movement in the same direction should be encouraged—The fear that present government policy may have the reverse effect—Aspects of that policy tending to favour the semi-fusion between public and private enterprise recommended by exponents of 'modern capitalism'.	
<i>Chapter XVIII. Some Conclusions</i>	183
The rise and fall of the notion of 'indicative' planning—Its irrelevance as an explanation of France's remarkable economic performance—The many forces driving towards 'corporative' planning in the 'west'—Evils of certain specifically French techniques of government intervention, and of the principle of 'flexible empiricism'—Rejection of the claim that French planning solves a 'false dilemma'—French planning as collusion between government and 'big' business.	
<i>References: I. Books, Articles, etc.</i>	188
II. Official Documents	191
<i>Index of Names</i>	193

Foreword

by

Sir Paul Chambers, K.B.E., C.B., C.I.E.

In writing this book Dr Lutz has done a great service to all those people who recognise that the crucial politico-economic question in many countries today is the extent to which there should be state planning of the economy. The question is posed in different forms and variants: should the government draw up forecasts or targets and require, cajole, bribe or plead with private enterprise to co-operate in efforts to achieve these forecasts or reach these targets? Professional economists will acknowledge the competence of the analysis and the careful documentation of the successive French plans; for them this book is, to my mind, compulsory reading. But the importance of the subject and the clarity of the exposition will commend the book to a much wider audience covering not only politicians and civil servants who are trying to devise or to administer some plan or forecasting system, but also to many business executives who are deeply affected by decisions made in this field. The maintenance or ultimate demise of healthy private enterprise is also in question.

A good deal has been published about French planning, or what has sometimes been described as 'indicative planning'; but the rare merit of this book is that it is written objectively by somebody who is neither a passionate advocate of French planning or any other planning system nor one of those writers so emotionally opposed to any form of government intervention that their conclusions are obvious from the very first page.

The extent to which each successive plan in France has differed from its predecessor as French ideas have been modified by experience is revealing, but the time-lag between French experience and foreign views about French planning is amusing; enthusiasm abroad for certain aspects of French 'indicative planning' has coincided with disenchantment in France itself.

Business executives, particularly those in large industrial concerns, will be especially interested in Dr Lutz's analysis of the fundamental difference between the forecasting done by, or on behalf of, a private industrial enterprise and that done by a government. So often one hears a glib statement from a politician who assumes that there is no difference between the two; whereas, in fact, there is a big difference in the objectives and in the methods adopted. I am personally aware of the frailty of medium- and long-term forecasting of the demand and the supply of major products in the chemical industry, of the capital expenditure which is

Foreword

desirable and of the profits that can be expected. Some years ago an American chemical corporation made a most careful long-term forecast of the consumption and price levels for polyethylene, but the results were wildly wrong, world consumption being many times what was forecast and price levels far below the lowest limit that was imagined. Undoubtedly other forecasters¹ for the same branch came closer to the mark or erred in the opposite direction. And one of the points emphasised by Dr Lutz is the likelihood that an industry's performance will be better if the different firms in it make separate and independent forecasts of the inevitably uncertain future developments affecting it than if they all rely on one and the same forecast.

When it comes to adding together the forecasts of different firms and then of different sections of industry for the purpose of constructing a national plan, fresh problems arise which indicate that the forecasts will almost certainly be biased. For example, in practice no big industrial consumer of power in Britain will want all his operations cut back or brought to a standstill by a shortage of power. A margin of power capacity owned by the power authority is for the users altogether preferable to a marginal shortage; estimates of requirements are, therefore, likely to be on the high side. The same is likely to be true, for example, of the requirements of the textile industry for man-made fibres and other materials even when those who are making the calculations believe that they are being quite objective.

British experience shows how the preparation of national forecasts may lead to a mutual deception which is quite unintentional. A government sets a target for a growth rate which is optimistic; the buying requirements of different sections of industry to achieve such a growth rate will appear to be sound evidence to the corresponding supplying sections of industry which will lead them to over-estimate *their* requirements. The more comprehensive the forecasting the more complete will be the mutual deception. Starting with a national target for a growth rate based upon political aspirations, the chances are that a national forecast will do much more harm than good.

There is another aspect of the subject which Dr Lutz's account of French experience illustrates. It is that in sectors of industry where there is rapid technological change, forecasting is particularly hazardous and

¹ *Author's note:* The French 3rd Plan greatly over-estimated the 1961 national output of polyethylene, and the 4th Plan slightly over-estimated the 1965 output. (The 'A' realisation-index as defined below, p. 70, was 42 per cent in the first case and 96 per cent in the second.)

unreliable. This is certainly the case in the chemical industry and in other science-based industries where world demand and innovation, rather than demand or developments in a particular country, must determine plans for capital expenditure. For such industries a national plan, whether of the French variety or such as we have had in Britain, is so incomplete as to be useless or even misleading.

Dr Lutz argues cogently that generally speaking forecasting by the public authorities for industry, even without the enforcement of a national plan, is inconsistent with and can be damaging to private enterprise. This conclusion does not, however, mean that for industries where world production is, for technological reasons, concentrated in a few giant concerns there would not be some merit in the assessment by some private (not governmental) organisation or organisations of future world demand and of plans for extending productive capacity. Such assessment would be based upon information voluntarily supplied and would be recognised as being of limited value, particularly if the figures for Communist countries are not available.

For readers more interested in theory the author's discussion of the need to maintain competition in forecasting as an essential condition for the healthy operation of private enterprise is fresh and stimulating; so is her analysis of the major problems of attempting to draw up a mathematician's model for a country's economy as a whole with the object of arriving at decisions whether of a national or sectoral kind. What she says here will no doubt be fiercely contested by ardent apostles of economic models, but most business executives who have to make major decisions on capital expenditure will share her scepticism about the possibilities of reaching a stage when long-term forecasting, which includes forecasts of scientific discovery, can be relied upon for national or sectoral economic decisions. It is difficult to resist her conclusion that a single national plan cannot supersede a multitude of individual plans for an economy retaining market mechanisms and decentralised decision-making, or her dismissal of the claim that there has been discovered a form of central planning of the economy which is 'non-interventionist' in character.

September 1968

Author's Preface

The present book is comparatively short and its purpose a correspondingly limited one. Its aim is not to give a general description of 'French' planning' along the lines followed in some of the earlier books on the subject, but to concentrate on selected aspects which appeared to need deeper analysis than they had received previously. It does not pretend, either, to provide an exhaustive economic history of France during the roughly 20 years since French planning began. It refers only to those facts and events which seemed most immediately relevant to the main argument.

The text was completed in December 1967 and does not, therefore, deal with the 'revolt' of May-June 1968 and with its possible consequences in terms, for example, of a more thorough-going 'reform' of the firm, entailing more 'participation' and 'contestation', than had been promised in the summer of 1967.

During the several years that the book was in preparation I benefited from conversations with numerous people in Paris. Among those who are, or were, on the staff of the Commissariat au Plan, MM. Pierre Massé and Jean Ripert, Professor Bernard Cazes and M. François Le Guay should be specially mentioned. Members of other institutions who were helpful in various ways include Professor Maurice Allais (Ecole des Mines), Professor Jean Bénard (Centre d'Etude de Prospection Economique à Moyen et Long Termes), Dr Emil Claassen (Centre National de la Recherche Scientifique), Professor François Perroux (College de France and Institute de Science Economique Appliquée) and M. Jacques Rueff (Institut de France). I was also privileged to attend meetings of the Congrès des Economistes de Langue Française, of the Société d'Economie Politique, and of the Centre d'Observation du Mouvement des Idées, at all of which I made useful contacts too numerous to mention individually. A special word of gratitude should have gone to the late Daniel Villey (University of Paris), who was responsible for making many of these contacts possible, and whose interest in my work on a subject about which he had himself often written and lectured was a constant source of encouragement. I cannot adequately express my debt to this lost friend.

Finally, my thanks are due to the Relm Foundation for financial assistance, and to the several members of the Institute of Economic Affairs who, besides making editorial suggestions, carried the major part of the burden of seeing the book through the press.

London
September 1968

V.L.

PART ONE

A New Kind of Planning

I Introduction¹

1. The rise in popularity of French planning

France's planning experience is now some 20 years old. The 1st Plan was drawn up in 1946 under the supervision of Jean Monnet. Originally intended to be a four-year plan spanning 1947 to 1950, it was later extended to 1952-53 in connection with the European Recovery Programme of the United States, where it was officially welcomed as a way of assuring that France's share of Marshall Aid would be used for the approved purposes. The 2nd Plan ran from 1954 to 1957, the 3rd from 1958 to 1961, and the 4th from 1962 to 1965. The 5th Plan covers five (in place of four) years from 1966 to 1970, and the work of preparing the 6th Plan began in 1968.

The Monnet Plan attracted considerable attention abroad, partly because of its tie-up with Marshall Aid, and partly because of its strong contrast to the methods adopted by other countries, such as West Germany, for achieving the same ultimate ends. In the period immediately following the Monnet Plan, foreign interest in French planning subsided and during the 1950s the aspect of France's economic performance which drew most comment abroad was the successive waves of cost and price inflation, leading to balance-of-payments difficulties and to the ultimate necessity of taking stabilisation measures. A very rapid inflation had taken place during the early post-war years, especially up to 1948. A second wave of inflation started in mid-1950 (at the beginning of the Korean boom) and lasted until 1952, when it was arrested by measures of credit and fiscal policy taken by M. Antoine Pinay. There followed three years of price stability. A third wave began in 1956 and gathered strength in 1957 provoking, despite a *de facto* devaluation of the franc by a little over 17 per cent in the summer of that year, the serious balance-of-payments crisis of the first half of 1958. This crisis compelled the drastic programme of financial rehabilitation carried out at the end of the year (again by M. Pinay) on the basis of recommendations made by an official committee under the chairmanship of M. Jacques Rueff. These measures were of a highly 'orthodox'

¹ Throughout the book references to publications cited will usually mention only author and date. The titles and sources are listed on pp. 188-92.

character directed towards reducing the budget deficit, slowing credit expansion, and giving more play to market mechanisms. They also included a new devaluation of the franc, the second since the general European currency alignment of September 1949 and the seventh since the end of the war. The two devaluations of 1957 and 1958 together amounted to approximately 30 per cent.

Even in France the 2nd and 3rd Plans attracted comparatively little attention. The government did little to bring them before the public eye, and press references to them were rare. It was not until the 4th Plan was being prepared that interest began to increase. 'The Plan' now became the subject of almost daily references in the press. It began to be treated as one of the major themes of national economic and political life, and struck a large part of French intellectual opinion with the force of a new religion. One reason for this change was doubtless the public blessing given to the 4th Plan by General de Gaulle. In May 1961, the General exhorted his countrymen to regard the achievement of the aims of the 4th Plan as an 'ardent obligation' and to make the Plan 'la grande affaire de la France'. Another reason, however, for the increased interest was that 'the Plan' had found, in the person of the new Commissaire au Plan, appointed in 1959, a spokesman who was able to provide it with theoretical foundations, a 'logic' or 'philosophy' (to use his own terms) which for a time at least persuaded many people that a new form of central planning of the economy had been discovered. The esteem in which French planning came to be held, not only in France but also abroad, during M. Pierre Massé's period of office¹ owes much to his influence.

The rather sudden 'discovery' of French planning by foreign economists and governments at the beginning of the 1960s was probably not unconnected with a further factor, namely the new state of economic health which France was then enjoying as a result of the Pinay-Rueff reforms of late 1958, and of the fact that the rate of inflation of the cost and price level in France was lower relatively to that in other countries than it had been previously. In 1959 and the next two years or so France's products were clearly more competitive on world markets than they had been for some time. Her balance-of-payments difficulties had ceased. And in 1960 the rate of growth of her gross national product was again high after the slowing down caused by the disinflation made necessary by the financial crisis. The Pinay-Rueff measures could not, except by a very large stretch of the imagination, be considered a part of 'French planning'. Their consequences, however, had made France's economic performance look

¹ M. Massé retired from this office at the end of 1965.

much better by 1960–61 than in earlier years, when the average rate of growth had been equally high but accompanied by financial instability.

Foreign observers began to take notice that since 1950 France's economic growth rate had been remarkably high and comparatively regular, and many concluded that a large part of the credit was due to French planning.¹

2. Comparative growth rates

The 'evidence' generally cited for French planning was the annual rates of real growth in the gross national product in various countries calculated from the statistics of the OECD. The figures are, of course, subject to the usual reservations concerning exactitude and comparability; and some of them have been revised, though not radically, since the time of which we have been speaking. The rates shown in Table 1 are based on the revised figures.

From this Table it appears that between 1950 and 1961, the terminal year of the 3rd Plan, France's average growth rate was higher than the rates achieved in Britain and the United States, but not higher than in West Germany, Italy, and the Netherlands. The same holds for the longer period up to 1965, the terminal year of France's 4th Plan. On the degree of stability of the growth rate, if we take the 'coefficient of variation' as the measure, France had a better record over the period of 11 years 1951–61 (and over the longer period up to 1965) than the United States, the United Kingdom, and the Netherlands, but not better than Germany or Italy. We should remark that in France the growth rate for industrial production inclusive of building was considerably less stable over the period 1951–61 (coefficient of variation 0.54) than the rate for the gross national product as a whole, and, as we should expect, the rate for agricultural output was still less stable (coefficient 2.05). In six² out of the 11 years, however, a higher than average growth rate for industry coincided with a lower than average (or even negative) rate for agriculture, or *vice versa*. Thus part of the credit for the stability of the growth rate of the gross national product belonged to 'chance', or atmospheric conditions.

There are two interesting features about the performance of France compared with other countries, especially those with equally high or higher average rates of growth. The first is that France achieved her high rate

¹ For example, J. C. R. Dow, 1961; OECD (formerly OEEC), 1962; Andrew Shonfield, 1963, and others of his writings, some earlier, some later.

² I.e. the years 1951, 1952, 1953, 1955, 1956 and 1959.

A New Kind of Planning

Table 1 Gross National Product at constant prices:^a

Percentage increase or decrease (–) on previous year

	<i>France</i>	<i>USA</i>	<i>UK</i>	<i>Germany</i>	<i>Italy</i>	<i>Belgium</i>	<i>Nether-lands</i>
1951	6.0	7.3	2.1	10.5	7.6	—	3.0
1952	2.5	3.7	–0.7	8.3	2.9	—	2.0
1953	3.1	4.1	4.3	7.5	7.6	—	8.5
1954	4.8	–1.6	4.3	7.4	5.1	3.7	7.3
1955	5.8	8.0	2.8	11.5	6.7	5.5	7.7
1956	5.0	1.8	2.2	6.9	4.2	2.9	3.4
1957	6.0	1.5	2.0	5.7	5.4	2.6	3.2
1958	2.6 ^b	–0.9	0.9	3.2	4.9	–1.0	–0.1
1959	3.0	6.2	4.0	7.0	6.5	2.6	5.2
1960	7.4	2.4 ^c	4.9	8.8 ^d	6.3	5.6	8.9
1961	4.4	2.0	3.5	5.4	7.8	4.7	3.6
Average 1951–61 ^e	4.6	3.1 ^e	2.8	7.5 ^d	5.9	3.3 ^f	4.8
Coefficient of variation 1951–61	0.30	0.96	0.57	0.30 ^d	0.25	0.61 ^f	0.61
1962	7.1	6.5	1.1	4.2	6.2	5.5	3.8
1963	4.8	4.0	4.5	3.4	5.5	4.6	3.7
1964	6.0	5.3	5.6	6.6	2.7	6.7	8.8
1965	3.5	5.9	2.4	4.7	3.4	3.3	5.4
Average 1951–65 ^e	4.8	3.7 ^e	2.9	6.7 ^d	5.5	3.9 ^g	5.0
Coefficient of variation 1951–65	0.32	0.75	0.58	0.36 ^d	0.27	0.50 ^g	0.52

^a 1954 prices up to and including 1955; 1958 prices thereafter.

^b Beginning with 1958, new revised series.

^c Figure slightly too high because of extension, in 1960, to Alaska and Hawaii.

^d Figure too high because of extension in 1960 to Saar and West Berlin.

^e Geometric average: annual percentage change.

^f 1954–61 only.

^g 1954–65 only.

Source: *OECD National Accounts Statistics*.

over the period 1950–61 with an almost constant labour force,¹ in sharp contrast to Germany and Italy.² Not until 1962 did France's working population begin perceptibly to grow, the most important source of the increase at this time being the arrival of the 'repatriates' from Algeria. It is true that between the two successive Census dates of 1954 and 1962 there was a shift of some 1.3 million employed persons from agriculture

¹ The total population increased by 8 per cent between 1954 and 1962; but the proportion of the working population to the total fell from 45 to 41 per cent, and its size was virtually unchanged.

² Unfortunately, comparative statistics of employment are not good enough to allow us to make valid comparisons of growth in gross national product per worker.

into other activities, but the consequent gain for industry exclusive of building was relatively small (less than 350,000 or about 6 per cent¹), whilst the index of industrial production excluding building rose by roughly 80 per cent. Although we may therefore impute part of the high rate of economic growth in France to a shift (such as could not take place in Britain, for example) of labour from low-productivity occupations in agriculture to more productive ones mostly in the 'tertiary' sector, we must notice also the very large increase in average productivity per worker realised by French industry. The second feature of France's high growth rate was its achievement with an average ratio of gross fixed 'productive' investment² to gross national product perceptibly lower than in Italy, West Germany or the Netherlands. During the 12 years 1950-61 her average ratio was only 13.7 per cent, compared with 15.2 for Italy, 16.5 for Germany, and 18.0 for the Netherlands.³ Such comparisons⁴ made France's performance seem remarkable,⁵ and to call for some special explanation.

Finally we should notice that by the middle of the 1960s France's gross national product per head of the population was at least on a par with the United Kingdom's and West Germany's, so that the very substantial gap which had by all accounts existed before the war had been closed. Indeed France's economy, generally regarded as having been one of the most undynamic of 'western' economies in the earlier decades of this century, appears to have been one of the most dynamic since the war.

¹ The number absorbed by *manufacturing* industry was somewhat larger owing to an exodus from mining.

² Taken as 'gross domestic fixed asset formation' exclusive of 'residential construction' (OECD statistics).

³ Over the longer period 1950-65, the percentage ratios were as follows: France 14.0; Italy 15.1; West Germany 17.4; Netherlands 18.1.

⁴ It is arguable that a more appropriate comparison than that between the ratios of gross investment to gross national product for different countries is between their ratios of net investment to (net) national income. Using the OECD figures for 'investment in gross fixed assets' (taken this time *inclusive* of residential construction) net of 'depreciation and other operating provisions' and for 'national income', we again find that France had a lower ratio than the other three countries mentioned.

⁵ In the early 1960s it was almost everywhere regarded as axiomatic that the higher the gross savings-gross income ratio, the higher *ceteris paribus* the rate of growth of gross income. Since that time, thought on this subject has been influenced by the work of builders of dynamic models, and by their identification of conditions in which the rate of growth (as distinct from the absolute level) of gross income will be independent of the gross savings-gross income ratio. It seems safe to assume, however, that these conditions were not fulfilled in the years of which we have here been speaking—if only because the countries concerned would then have been in a 'transition period', rather than on the 'equilibrium path' to which the model-builders refer.

3. The new style of the post-Monnet plans

For many purposes it is necessary to divide France's planning experience into two phases: that of the first (Monnet) Plan and that of all later Plans.

Following the discussions soon after the Liberation about the best way of promoting economic recovery, France chose a policy of economic 'dirigism' rather than a quick return to the liberal¹ or free market economy, as chosen by West Germany. The French policy had three principal characteristics. First, there was in 1945-46 an extension of nationalisation,² affecting gas and electricity supply, coal-mining, the Renault motor works, the Bank of France, the four large deposit banks, and the larger insurance companies. Secondly, it implied the prolongation of wartime controls over prices and wages, and rationing. Thirdly, the Monnet Plan gave the State a dominant influence over the direction of investment, much of which was financed out of public funds.

By the beginning of the 1950s, however, and before the end of the extended Monnet Plan, the bulk of the direct controls had been swept away. With some important exceptions, French planning henceforth generally relied on less authoritarian methods. Thus, judging by the amount of government intervention in the economy, the Monnet Plan appeared much more of a 'real' Plan than later ones. According, however, to the theory of French planning, as formulated prior to 1963-64 at least, these later Plans went further than the Monnet Plan. The 2nd, 3rd and 4th Plans were supposed to represent overall central planning of the economy, instead of merely partial planning concentrated on a limited number of 'basic' sectors. It was also the 2nd Plan which introduced the notion of an economy geared to a 'chosen' growth rate, which was one of the features of French planning that attracted imitators abroad.

It was these post-Monnet Plans that set the tone for what came to be considered a special kind of 'French' economic planning which differed fundamentally from planning of the Soviet type. The name most often given to this new type of planning is 'indicative', as opposed to 'imperative' or 'directive' planning. It is also called *planification souple*, which we may usually translate as 'soft' planning, although the term also carries the implication that the plan is 'flexible'. The methods of implementation of

¹ Here and throughout this book the term 'liberal' is used in the classical European sense.

² The role of the nationalisations in giving the government power of direction over the economy was, of course, not the only reason for undertaking them. For an account of the motives that were important in the various cases, see Bernard Chenot, 1956.

this type of planning have been described by M. Massé as 'persuasion and stimulation, but not constraint'.¹

During the early 1960s many people in France and outside came to believe they had found in this French invention the perfect compromise, that is, a system which gave the presumed benefits of overall central planning (better co-ordination of the activities of individual economic operators) without sacrificing either the advantages of the de-centralisation of investment and production decisions, market mechanisms and competition, or any of the fundamental liberties (political democracy, private property, freedom of enterprise, and freedom of consumers' choice).

¹ Pierre Massé, 1962 (5).

II The Planning Machinery and Methods

1. The planning authorities and commissions

Among the novel features of French planning which other countries have sought to imitate are the administrative machinery and method of preparing the Plans. These have been described elsewhere and indeed form the main part of the subject matter of most books and articles on French planning. Accordingly, the following account is confined to some of the most important features, especially those to which we shall have occasion to refer later.

The Planning Office or Commissariat au Plan is responsible to the Prime Minister's Office.¹ Its head or Commissaire général does not have ministerial rank, and his office has a small staff and a correspondingly modest budget,² thereby deliberately avoiding anything that might look like a super-ministry with vast powers of interference in the economy.

Much of the work of preparing the Plan comes from other public or semi-public offices, and from private firms and other groups. Indeed, it is part of the conception of the 'concerted economy', with which French planning has been associated ever since the time of Jean Monnet, that the Plan should be the product of the joint efforts of those most closely concerned in carrying it out.

An important advisory and consultative role is played by the Economic and Social Council (*Conseil économique et social*), which dates from 1946.³ Of its roughly 200 members, appointed for terms of five years, about two-thirds represent and are chosen by various interest-groups (e.g. trade union confederations, employers' associations, the 'national enterprises', farmers' associations, the national union of 'family associations',⁴ artisans, etc.) and the other third are 'qualified personalities' nominated directly by the government. To deal with specific problems, the Council is divided into

¹ Or since 1967 to a Minister Delegate (attached to the Prime Minister) for the Plan and for Regional Development.

² About 17 million F. in 1965. Here as elsewhere 'F.' refers to the new franc (equivalent to 100 old francs) which was introduced at the beginning of 1960.

³ It had, however, a much earlier predecessor in the National Economic Council established in 1925 and reformed in 1936.

⁴ These are organisations representing the interests of families or, broadly speaking, consumers.

sections, to which the government appoints experts as 'section members' additional to the full council members.

Commencing with the 5th Plan, the consultative machinery was given a regional dimension. The authorities here concerned were the Regional Development Commissions appointed for the respective 'programme regions'¹ into which France has for some time been divided for purposes of regional development policy. These Commissions consist of 20 to 50 persons, some appointed by (and representing) the elected local government officers of the region, some by the local economic and social groups, and some ('personalities') by the Prime Minister. They are thus fairly similar in their composition to the (national) Economic Council.

The part of the planning machinery generally regarded as most characteristic are the 'Modernisation Commissions',² or 'organs of concertation' as they are now sometimes called. Their members are nominated on the occasion of the preparation of each Plan by the Prime Minister on the recommendation of the Commissaire au Plan. They set up their own working groups, containing outsiders as well as Commission members, to study specific problems. The 'interests' and other categories represented in the Commissions and in their working groups include the following: heads of firms (including heads of the 'national enterprises'), farmers, civil servants and other officials, employers' associations, trade unions, representatives of family associations and the professions, academics and other 'experts'.

The number of Commissions has increased until for the 5th Plan it was over 30. Most are so-called 'vertical' Commissions, each dealing with an individual sector or branch of activity,³ and the remainder are 'horizontal' Commissions dealing with general matters of concern to the whole economy.⁴ For the 5th Plan the number of people participating in the Commission work was over 3,000.

¹ There are 21 such regions.

² These are generally regarded as an invention of M. Monnet, although his immediate successor at the Commissariat au Plan, M. Etienne Hirsch, has pointed out that they were modelled on the working parties of industrialists and trade unionists set up in Britain by Sir Stafford Cripps. (See *Le Monde*, 4 January 1966.)

³ For the 5th Plan there were: 17 Commissions dealing with branches of production and trade (agriculture, fishing, agricultural and food-processing industries, mines and non-ferrous metals, steel, oil fuels, power, chemicals, manufacturing industries, artisan activities, building and public works, housing, transport, trade, the press, technical research bureaux, tourism); and seven dealing with matters of 'collective equipment' (post and telecommunications, radio and television, cultural equipment, health and social equipment, educational equipment, urban equipment, water).

⁴ For the 5th Plan eight 'horizontal' Commissions dealt respectively with: general economic and financial aspects, manpower, productivity, scientific research, regional planning, social security, Overseas Departments, Overseas Territories.

2. The preparation of the plan

The work of preparing a Plan takes about three years. The preparation of the 5th Plan, to which the following description applies, took place in two separate stages, each terminating with discussion and approval by Parliament.

The first stage was choosing the main 'options' on which the Plan should be based. This began with an exploratory phase, consisting of the elaboration of preliminary 'sketches' (at various levels of aggregation) of the process of economic development up to the terminal year of the Plan, but within a longer perspective extending up to 1985. In a second phase these 'growth sketches', and variants of them, served as the basis for investigating alternative hypotheses for the larger aggregates of income and expenditure, and especially the overall growth rate, and hence to make clear the possible 'options' of the Plan.¹ This task was carried out by the Commissariat, the Forecasting Department of the Ministry of Finance and the National Institute of Statistics (INSEE), helped by other government departments, and during the second phase by consultation of the Modernisation Commissions (constituted early in 1964). Using these sketches and their variants, the Commissariat prepared the *Report on the Principal Options Governing the Preparation of the 5th Plan*.² After approval by the government (in July 1964) this report was passed first to the Economic and Social Council for its opinion and then to parliament, which passed a law approving it in December 1964.

The second stage, begun early in 1965, was to work out the Plan proper within the framework of the directives given by the government on the basis of the options voted by parliament. It was at this stage that the Commissions did the most important part of their work: that of making the 'prediction study', detailed by branch. To aid them in this task, the Commissariat provided them with 'growth sketches', some of which (for example, that relating to production) were detailed by the 29 branches (corresponding to classifications used in the national income statistics) which will be listed later.³ Using 1962 as the base year, each Commission had to present its forecasts for the terminal year of the Plan (1970) in the form of answers to a questionnaire filled out for 66 separate branches or sub-branches and containing 12 tables relating to the following matters:

¹ A full description of the econometric models and sub-models (most of them not 'formalised') that were used is given by INSEE, 1966.

² For brevity this will subsequently be referred to as the *Report on the Principal Options of the 5th Plan* or as *5th Plan (Options)*.

³ Below, p. 161n.

1. The overall balance of the branch in financial and physical terms (production, imports, domestic sales, exports, variation in stocks, investment in fixed capital, etc.);
2. the evolution of the price of the product of the branch relatively to the officially assumed movement in the general price index for gross domestic production as a whole;
3. 'intermediate' consumption of the branch's products by each of the other branches;
4. consumption by the branch of goods and services supplied by each of the other branches;
5. the 'value-added' of the branch and its distribution between indirect taxes, labour costs, and gross earnings;
6. distribution of the branch's products to direct users and to traders;
7. imports and exports and their distribution by area of origin or destination;
8. gross investments (detailed by broad categories) and the sources of funds for financing them;
9. movement in productivity of labour;
10. numbers employed, classified by grade or skill-group;
11. distribution of employment among the 21 'programme regions';
12. scientific and technical research (expenditures, method of finance, numbers employed, foreign receipts and expenditures in respect of patents and licenses).

The tables used in the 'prediction study' for the 5th Plan were considerably more complex than the tables for the 4th and earlier Plans¹ and covered a good many more items. Apart from the introduction of finer subdivisions within certain items, the most notable three additions concerned relative prices,² values-added and their division among various uses, and scientific research. The purpose of the first two additions was to enable the

¹ Part of the increase in the number of tables was, however, due merely to a change in arrangement, some of the big tables used for the 4th Plan being split up into smaller ones for the 5th.

² In the case of the 4th Plan the preliminary forecasts made by the Commissariat and passed to the Commissions were based on the working hypothesis of stable relative prices as well as a stable general price level. The Commissions were, however, asked to indicate such changes as they expected in the prices of the products of their branches relatively to the general price level so that, where deviations were important, errors due to the preliminary assumption of constant relative prices might be corrected.

A New Kind of Planning

planners to draw up a projection (by broad sectors at least) for the financial as well as the physical flows, that is, to complete the 'programming in volume' (with which the earlier Plans had been exclusively concerned) by 'programming in value'. This new departure is, however, admitted to be at present highly tentative.

Despite these new refinements, the 'model' underlying the prediction study, and hence underlying the 'projection' which is the final outcome of that study, remains, as the planners fully acknowledge, a highly simplified one. A footnote in the *Report on the Principal Options of the 5th Plan* describes it in the following terms:

The projection is based on an evaluation of the productive possibilities of the economy during the plan: labour, productive equipment, technical progress. There is worked out correspondingly an image of 'final demand', or of what is expected to be demanded, in the terminal year for purposes of consumption, various types of investment, and export, account being taken of the social objectives of the plan. Given this image of demand, and assuming internal and external equilibrium, a detailed table of supply, i.e. of production and imports, is drawn up. To these tables of demand and supply are added tables which describe the way in which incomes are distributed and used, and in which savings pass from savers to investors.

In other words, we are very far from the model of classical economic theory based on the simultaneous determination of supplies, demands, and relative prices. There has not yet been an approach towards a 'variable prices model' in this sense,¹ and none is foreseen for the near future.

During the process of drawing up the detailed branch forecasts, the vertical Commissions or their working groups exchange information in the effort to obtain inter-branch harmony; and exchanges also take place between the vertical and the horizontal Commissions. Not all divergences between estimates are eliminated at this stage, however. There remains the job of making the final synthesis of all the forecasts with the last 'harmonising adjustments'. The forecasts obtained from all the branches are put together and checked for general consistency, or 'coherence', in the language of the Commissariat, and the Commissariat sees that any serious discrepancies are 'corrected'. The fact that the final figures contained in the 'projection' have passed this 'consistency test' has played a key role in the theory of French planning, as we shall see in later Chapters.²

The detailed branch forecasting done by the Commissions also acts as a check to the original hypotheses on which the main aggregates underlying

¹ Relative price increases were taken into account as a factor holding back increases in demand for certain items (food, tobacco, petrol, public transport).

² Below, pp. 105ff.

the previously chosen 'options' were based, and leads if necessary to a revision of these choices. Certain items (including productive investments) were revised in the 5th Plan. Even the 'definitive choice' of the growth rate depended in theory on this checking process, although it did not prove necessary to alter this figure.¹ On the other hand, the 'sketch' of the development of production in each of the 29 branches initially worked out by the Commissariat did undergo appreciable revisions as a result of the labours of the Commissions.

The second stage of the preparation of the 5th Plan concluded with the drafting by the Commissariat of a *General Report* on the Plan, which was submitted by the government (like the *Report on the Options*) first to the Economic and Social Council and then to parliament. The law approving it was passed in November 1965.

Each Commission proceeded to prepare for publication its 'special report', dealing with the problems and prospects within its respective sphere in more detail than is contained in the *General Report*.

3. The attempt to democratise the plan

The preparation of the 5th Plan was associated with a considerable extension of the levels and frequency of the consultations. The two innovations were first the consultation early in 1965 of the regional authorities concerning the general lines of the Plan (and especially about the option in the public investment sector), and second the consultation of Parliament at two stages, instead of the previous one. These innovations were inspired by the dissatisfaction, voiced in 1962 when the 4th Plan was being launched, with a procedure deemed insufficiently democratic even though an improvement on that used for all the previous Plans.² As was

¹ A revision of this item during the process of preparing the Plan has very awkward consequences, as was demonstrated in connection with the 4th Plan. The 'choice' of the growth rate had on this occasion been a highly contentious matter among the competent authorities. While some had been in favour of setting the rate on the high side, others had been much more cautious. The government had finally instructed the Commissaire to adopt the rate of 5 per cent as the basis for the Plan, but to give consideration also to the rate of 5.5. When a first rough synthesis of the Commissions' forecasts made on the basis of the lower rate appeared to show that this might easily be exceeded, the Commissions were requested to do the work all over again for the higher rate, which was the one eventually adopted. This procedure put an extremely heavy burden on the Commissions and there was general agreement that it could not be made a regular practice.

² The 1st Plan had been ordered by a decree (of January 1946). The 2nd was presented to the National Assembly in plenary session nearly 18 months after it came into force,

officially recognised, parliament had little possibility of modifying the Plan's contents, since amendments affecting its figures would deprive it of internal consistency. The debate obviously had to be confined to general economic policy issues, and only minor amendments were made in the text of the Plan to give expression to parliament's concern with some of these issues. One amendment, however, inserted into the preamble to the Plan a clause imposing the two-stage consulting procedure, by which it was hoped to ensure that in future parliament would participate in the preparation of the Plan instead of merely approving or ratifying the completed draft. The clause specified that the government should submit to Parliament the 'principal options' involved² before giving its directives to the Commissaire, and suggested the following five subjects:

1. the overall expansion of the economy (growth rate);
2. the distribution of gross domestic product between investment and consumption;
3. the structure of final consumption;
4. the direction to be followed by social policy;
5. the direction to be taken by regional policy.

A member of the Planning and Investment Section of the Economic Council subsequently pointed out that if only two hypotheses were presented under each of these five subjects, Parliament might have to choose between 25 permutations or 'variants'.³ In the event the presentation (in November 1964) of the options of the 5th Plan revealed itself to be scarcely more than a matter of form;⁴ and it failed to satisfy the aspirations of most critics who had been campaigning for more 'democratic' planning.

and became 'law' two and a quarter years after (i.e. in March 1956). The 3rd Plan was promulgated by presidential decree 15 months after it had started (i.e. in March 1959). The 4th Plan presented to parliament in December 1961 was not passed into law until late in July 1962, when half of the first year of the Plan was already over, but it was the first to be even submitted to Parliament before it came into force.

² The notion of 'fundamental options' had not explicitly appeared in any of the Plans prior to the 4th, which referred to only two options about which it had to make a choice: first, a high growth rate in preference to a more modest one, which would have demanded less effort from the nation both in work (permitting a reduction in working hours) and in saving or investment, and, secondly, the proportion of the total output to be used for 'social investments'.

³ Conseil économique et social, October 1963.

⁴ See the complaints registered by the Conseil économique et social, October 1964, pp. 874 and 878-9.

III The Manifold Aspects of French Planning

1. Meanings of 'economic planning'

Any discussion of comparative economic systems must keep in mind that the terms 'central economic planning' and 'planned economy' have both in recent times been applied to differing concepts which still need to be kept apart.¹ The first term, sometimes replaced by the second, is used to refer to three distinct things:

- a. a system of *integral* planning from the centre, implying that all economic operations are centrally 'guided', 'coordinated', or 'directed' by a 'National Plan';
- b. a system of *partial* planning from the centre, entailing measures of government intervention for purposes of modifying specific aspects of the pattern of production, consumption, or distribution;
- c. the government's programme for the public sector of the economy, or what M. Massé calls the 'Plan of the State'² as distinct from the 'National Plan' of which it would constitute only a part.

The second term is used in still a further sense:

- d. to denote that every economy is 'planned' in the sense that the various economic agents (government departments, local authorities, public enterprises, private firms, households, etc.) almost all engage individually in some sort of forward planning or 'programming' of their activities.³

If we try to classify French planning in terms of these alternative forms of 'economic planning', we find ourselves on uncertain and shifting ground. Something of each may be found either in the various expositions (official and other) of the theory, or in past practice, or in the numerous proposals for reform in the future. There has, however, been no generally accepted or

¹ See D. H. Robertson, 1947, for a criticism of the then current tendency to use the terms 'planned economy' and 'National Plan' to cover what he thought no more than judicious state intervention in the economy' (pp. 46-7 in 1952 edition).

² Pierre Massé, 1965, p. 49.

³ An extreme view, which comes to us not from France but from the United States (Professor J. K. Galbraith) sees economic planning in this sense as being not substantially different in the 'modern industrial society' (or the part composed of large corporations, whether public or private) from the kind of central planning which takes place in the Soviet-type economy.

constant view about which elements are necessary and sufficient to constitute 'French-style' planning. This confusion is increased when allowance is made for those 'secondary aspects' of French planning which are discussed below. One point on which we need have no doubts, however, is that the official conception, as formulated in the late 1950s and early 1960s, saw an important shift (mentioned in Chapter 1) as having taken place between the 1st and 2nd Plans, away from partial planning (or planning in the second of the four senses listed above) towards integral planning (or planning in the first of those senses). From the 2nd Plan on French planning was supposed to be a method of centrally guiding the whole economy.

2. Dissociation of central planning from interventionism

This conception did not by any means make French planning synonymous with government intervention in all parts of the economy. At times during the last 20 years the French economy has undeniably been marked by a great deal of government intervention, much of it, however, connected less with the implementation of the Plans than with developments which were not anticipated by them or were even contrary to their declared aims. For example, there were the measures taken under the 'stabilisation plans' (introduced to deal with 'unplanned' inflation), of which France had between 1950 and 1965 no less than three¹ on top of the four 'Plans'. Much of the intervention, moreover, was little different from that undertaken elsewhere by governments not pretending to engage in any sort of integral central planning of the economy. Examples here are the measures in favour of agriculture and of regional development. Certain forms of intervention resorted to in France were, it is true, more closely related to aims and procedures that were especially characteristic of French planning. Many of these forms had, however, tended to decline in importance precisely during that period (1960-63) when the belief in French planning as a new kind of integral central planning was at its height. According to the then prevailing theory, there was indeed one form of French planning, sometimes called 'liberal planning', which was non-interventionist.

There existed at this time, that is to say, a tendency to dissociate central planning from interventionism. This tendency was in sharp contrast to the view that had prevailed in France at the time of the original Monnet

¹ Two of these, which did not at the time go by the name of 'stabilisation plan', have been mentioned above (pp. 3-4). The third, which went by that name and was introduced in the autumn of 1963, was still being pursued when the 5th Plan was launched in 1966.

Plan, and also at about the same time (1945–47) in Britain where the participants in the discussion took the traditional view of central planning as involving direct controls and the suppression of market mechanisms. Some 15 years later, however, a remarkable revolution in ideas had taken place. Integral central planning had come to be regarded not as the enemy but as the ally of the market economy.¹ Consequently, when economic planning returned to fashion in Britain in the early 1960s, hardly any reference was to be found to the post-war debate in which such well-known figures as Professor Lionel (now Lord) Robbins, Sir Oliver (now Lord) Franks, Professor John Jewkes, Sir Hubert Henderson, and the late Professor D. H. (Sir Dennis) Robertson had participated. There was indeed a strong resurgence in many countries of a view which Robertson had thought untenable, namely that the ‘philosophy of the planned economy’ and the ‘philosophy of economic liberalism’ (or what he called the ‘conception of Liberal interventionism’²) could be fused together.³

Whether this symbiosis between the two ‘philosophies’ can be accepted as valid is a question which a large part of the present book will be devoted to answering. But even assuming that so-called ‘liberal planning’ can be said to exist, views differ on whether it adequately fulfils the purpose of central planning of the economy. Here we encounter a second point of contrast between two conceptions. In the book which he published in 1944, Professor Hayek expressed the view that the earlier claims for the superior efficiency of the planned economy were being ‘progressively abandoned’ by advocates who now tended to base their case solely on the argument that such planning would ‘enable us to secure a more just and equitable distribution of wealth’.⁴ Yet by the early 1960s belief in the greater efficiency of a centrally planned economy had again come very much to the fore, thanks to the presumed lessons of French experience. In ‘French’ planning, the emphasis had been much more on efficiency than on social justice, although the issue about what ought to be the ‘ends’ of central planning remained a live one. The so-called ‘liberal’ planners regarded the Plan chiefly as a way of helping the economy move more

¹ I shall not in any part of this book use the (Galbraithian) definition of the ‘market economy’ which sees the ‘market’ as existing only when conditions of practically perfect competition prevail, and as having been superseded by economic planning, scarcely distinguishable from Soviet-type planning, in any branch where production is concentrated in the hands of a few firms.

² Robertson (1947) thought this term might be used to distinguish the British philosophy of economic liberalism from the more extreme interpretations which had sometimes, he said, been given to ‘liberalism’ on the continent.

³ Robertson, 1947 (pp. 44–6 in 1952 volume).

⁴ F. A. von Hayek, 1944, pp. 32–4 and 98–9.

efficiently in the direction which it would follow 'spontaneously' in response to the decentralised decisions of producers and consumers along with a 'judicious' dose of 'liberal interventionism', to use Robertson's words. But others took the view that the Plan ought to be more distinctly 'normative' in character, that is, that it should make a larger part of economic activity the object of centralised decisions, aimed at deliberately modifying the structure of that activity. French planning has long dangled somewhere between these two conceptions.

3. The 'projection'

In Parts I to III of this book I shall proceed on the assumption that the core of the Plan is the system of targets and/or forecasts expressed in precise quantitative terms and covering the entire economy; or, rather, I shall take it that this *was* the core so long as French planning pretended to be central planning of the whole economy. For it was this system, or what has recently come to be called the 'projection',¹ which expressed the attempt to 'co-ordinate' or 'guide' all economic operations from the centre.

It was characteristic of the French Plans in the past that the projection was not confined to the broader aggregates regularly used in the national income and expenditure accounts, or even to the larger sub-aggregates, but went into considerable detail by industrial branch or sub-branch, or even product. Indeed, it was customary a few years ago to say that one of the features of the continuous evolution of French planning had been the perfecting of the projection to make it more exhaustive (i.e. cover more sectors), more detailed (by subdividing each sector into more branches), and more 'coherent' (i.e. more concerned with the equilibrium of the whole system and with inter-sectoral relationships).² It was argued at that time that only a detailed projection (as opposed to one drawn up in terms merely of broad aggregates) could be of real use to the individual industries. As we shall see, however, the 5th Plan seemed to abandon this view.

4. Targets or forecasts

In principle, the projection may consist of 'targets' towards which the planners actively seek to direct the economy, or of 'mere forecasts' of what is going to happen without intervention of this kind, or a mixture of both. The question of which items are supposed to be targets rather than fore-

¹ Cf. p. 14.

² Cf. François Le Guay, 1963.

casts is linked, of course, with that mentioned above of how far and in what respects the Plans are supposed to be 'normative'.

The Monnet Plan had used the term 'target' (*objectif*) for all of the sectors to which it referred, but had drawn a distinction between two types of target: 'imperative' and 'indicative'. To the first belonged only the targets for the six 'basic' sectors (coal, electricity, steel, cement, agricultural machinery, internal transport), while to the second belonged those for agriculture and various manufacturing industries. The 2nd Plan distinguished the 'overall objectives' from the sectoral targets, but used the term 'target' for all sectors and sub-sectors indiscriminately. The 3rd Plan was the first to suggest that the concept of the 'target' should be applied to some of the Plan's branch figures but not others. In speaking of the preceding Plan, it drew a distinction, retro-actively so to speak, between the 'basic' sectors (power, steel and cement) for which it said 'precise programmes' or 'targets' had been set, and manufacturing industries for which it was a question 'less of fixing imperative targets than of establishing forecasts fitting into the framework of the overall expansion targets'. In referring to its own figures, however, the 3rd Plan sometimes used the two terms interchangeably, and at other times consistently used one or other, but without making clear whether any real difference was meant. The 4th Plan again stated that:

A distinction has to be made between the basic products and services and the almost infinite assortment of manufactured goods. In the first case, the programmes must be kept on pain of risking failure to realise the growth target. In the second case, a certain flexibility is both possible and desirable, substitutions between products taking place according to the evolution of relative prices and of consumers' preferences.¹

In another passage, still referring to the manufacturing industries, it remarked that:

... the production and foreign trade targets ... for each branch must not be considered as unalterable. ... But even should they have to be revised during the course of the 4th Plan, they will require for their attainment a sustained and co-ordinated effort from all the firms, and *they cannot therefore be likened to mere forecasts.*² (My italics.)

These passages seemed to invite us to draw a distinction between 'firm' targets and targets which are 'less firm' but more than forecasts.

One instance where the 4th Plan, for a very special reason, made a quite precise distinction between targets and forecasts was connected with the problem of the growing surpluses of certain agricultural products. This

¹ Text of 4th Plan, p. 36.

² *Ibid.*, pp. 361-2.

A New Kind of Planning

Plan referred in much the same terms as previous Plans to the necessity of orienting production towards the commodities for which the domestic demand was increasing rapidly and for which the export possibilities were also good, rather than towards those of which domestic consumption was stable or only increasing slightly, and for which the export outlets were also unremunerative. But the Plan took it for granted that output in 1965 of several important products would exceed demand, and for each of these surplus products the Plan contrasted the 'forecast' or probable output with the target or 'desirable' output.

Generally, however, there was no clear line between targets and forecasts, and this fact inevitably gave rise to doubts and misunderstandings about the meaning of the Plan. Not until the 5th Plan was a conscious effort made to resolve these doubts.¹

5. The secondary aspects

Another distinction which we shall need to keep in mind is between the primary role of French planning and certain secondary roles. The literature on the Plan² has featured at least seven subordinate purposes:

1. to provide a meeting place for ministers of the various government departments dealing with economic affairs to co-ordinate policy;
2. to permit consultations between government and business (and perhaps also labour) and assist the parties to reach an understanding of each others' problems and points of view, and perhaps to enter into mutual engagements in accordance with the procedures of the 'concerted economy';
3. to encourage a new business morality based on 'concertation' and on a regard for the 'general interest', as opposed to an obsession with private profit;
4. to provide a 'school' where senior executives may learn the art of rational, forward planning of business;
5. to educate the general public to a better understanding of economic affairs, especially by making clear the 'options' involved and the fact that having some things means going without others;
6. to provide a research and information service, with detailed surveys of the problems and prospects of the economy as a whole (in the *General*

¹ Below, pp.155-6.

² I follow the French habit of sometimes using the expression 'the Plan' in a personalised sense similar to that attached to 'the Treasury', 'the Fund', etc., in Anglo-Saxon countries.

Report) and of the individual sectors (in the 'special reports' drawn up by the Commissions);

7. to develop a *mystique* or 'myth' which serves to rally public opinion, and to encourage the citizens to put forth their best effort as economic operators, workers, savers, etc.

Many advocates of French planning have been as much impressed by these secondary aspects as by the primary one. Nevertheless, though some of them may be necessary to French planning's primary function, they are neither sufficient on their own to perform that function, nor altogether dissociable from it. If we value such purposes for their own sake, we can arrange for many of them under terms of reference that make no pretence to 'central planning of the economy'. They do not deserve this name any more than certain of the four forms of 'economic planning' listed earlier. We must therefore resist the efforts by enthusiasts to represent almost all of these aspects and forms as so many different but equally significant manifestations of French planning, so that if the latter could not be said to be present in one, it could like the Hindu god surely be said to be present in another.

In this book I shall be primarily concerned with French planning *qua* central planning of the economy, and I shall take a strict view of what this means: the view that it implies one or the other of the first two of the four things listed in section 1 of this Chapter.

IV The Exogenous Instruments: 1

1. Two kinds of instrument

Any plan in the true sense presupposes the existence of methods of implementing it. An important part of the novelty of French planning is said to lie in the nature of these methods. They have been described as a subtle blend of various 'instruments', some of which are of a material kind and others of a psychological, moral or mystical character, or else deriving from the 'force of logic'.

Much of the belief in the importance of these non-material 'instruments' goes back to the Monnet Plan and to the role then attributed to the consultations between government and business of which the Plan was the product. Many years later¹ M. Massé remarked that Monnet had been convinced that 'by working on the Plan, those who would have to put it into effect would do so spontaneously, and that in this way the government's intervention during the execution of the Plan would not need to be heavy', and he concluded that 'experience confirmed that (Monnet) was right'. It was Monnet's conception of a kind of central economic planning implemented by persuasion rooted in consultation and discussion that had originated the philosophy, much in vogue in France since the war, of the so-called 'concerted economy'. One writer has held that in such an economy the Plan is made effective by virtue of the various decision-making units assuming 'informal but morally-binding obligations' to do their part (e.g. to carry out their share of the investment envisaged by the Plan).² Other writers have emphasised the Plan's 'power as a myth',³ and believe that an important part of the Plan's influence on economic development stems from this power.

These claims concerning the psychological and mystical influences of the Plan, and the morally-binding obligations which it creates, are understandably viewed with scepticism by many people, both inside and outside France. But even if we dismiss such claims altogether, the theory of French planning contains another element which still obliges us to draw a distinction between what M. Jean Ripert has called the 'external forces of the Plan' (consisting of the various forms of material intervention by the

¹ Pierre Massé, 1962 (2), p. 4. ² S. Wickham, 1963, pp. 340-1.

³ J. Fourastié and J.-P. Courthéoux, 1963, pp. 115-16, 139-40.

authorities) and the 'internal force of the Plan'.¹ This element consists in the 'force of persuasion' which the Plan is supposed to exert in accordance with the 'logic of the Plan' as this was elaborated, after M. Monnet's time, by M. Massé. It has a more substantial analytical basis than the other non-material influences mentioned above, and requires more serious attention. It is the key to the conception of so-called 'liberal' or 'non-interventionist' planning.

In what follows, I shall for the sake of brevity usually refer to the two kinds of instrument distinguished by M. Ripert as 'exogenous' and 'endogenous' instruments, respectively. As we shall see, the relative emphasis placed on them has varied. This Chapter and the next will be concerned exclusively with the first, and Chapter IV will deal with the second.

2. Importance of the public sector

France's economy has a large public sector which extends far beyond the traditional activities of the central and local government authorities into industry and banking. This circumstance obviously facilitates central planning of the economy in a number of ways.

First, it means that the public authorities directly control a large part of the investment activity of the economy. In recent years, as Table 2 shows, 'collective' investments by the central and local government

Table 2. Gross Investments by Broad Category

	1949	1955	1959	1961	1963	1964 ^p
	%	%	%	%	%	%
Collective investments by the 'administrations'	9.3	12.0	12.0	11.9	12.6	12.7
Housing	12.7	25.1	26.2	24.5	25.8	27.9
Productive investments	78.0	62.9	61.8	63.6	61.6	59.3
(a) Nationalised enterprises and other public establishments	n.a.	n.a.	22.6	20.5	19.5	19.3
(b) Private firms	n.a.	n.a.	39.3	43.1	42.1	40.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
Total in milliards of F.	15.0	29.9	50.8	62.9	79.1	88.8

^p = provisional

n.a. = not available

The figures for years prior to 1959 are not strictly comparable with those for later years.
Source: FDES, *Tenth Annual Report*, 1965.

¹ Jean Ripert, 1962.

authorities (in administrative buildings, schools, roads, other public works, etc.) have accounted for about 12 per cent of total gross investments. Of total 'productive investments' (exclusive of housing) public enterprises were responsible for about one-third. And the sum of the two kinds of publicly-controlled investment ('collective' and 'productive') represented about one-third of total gross investments. (The proportion was very much larger during the original Monnet Plan, owing to the emphasis on investment in the 'basic' sectors, most of which were nationalised.) Throughout the post-war period, the government has also played a big role in housing. In 1961 (the terminal year of the 3rd Plan) no less than 90 per cent of the total number of housing units constructed were still state-aided in one way or another (i.e. by 'special construction loans', construction premia, loans and premia combined, or contributions towards interest charges). The proportion fell during the next few years but was still about 75 per cent in 1964.

Secondly, the existence of a large public sector means that the public authorities (administrative and industrial) are large buyers from the private sector, and may exert pressure to conform to the Plan on firms from which they purchase supplies and of which they may (as in certain engineering branches) be the chief customers. (The 5th Plan explicitly assigned a role to this factor as a way of encouraging industrial concentration. It recommended that government procurements should be distributed with an eye to avoiding 'useless new competition'.)

Thirdly, the public authorities directly control a large part of the banking sector (i.e. the nationalised banks, and the public or semi-public credit institutions which specialise in long-term lending¹), and can thereby exercise a qualitative control over the allocation of credit so as to reserve it for investment purposes (in private or public sectors) that conform with the Plan.

The existence of such a large public sector and the availability of other methods of intervention, to be mentioned later, undoubtedly provide the authorities with the means of closely controlling the direction of economic

¹ The principal 'specialised' credit institutions are the following: The Caisse des Dépôts et Consignations (where the Caisse Nationale d'Epargne and the ordinary savings banks redeposit most of their customers' savings deposits) originally specialised in financing local authorities, but now lends to the Moderate Rent Housing (HLM) offices and subscribes to new bond issues of the central government, the national enterprises, and the other specialised credit institutions; the Crédit National finances industrial investments, the Crédit Foncier real estate investments, the Caisse Nationale du Crédit Agricole agricultural investments, and the Caisse Centrale du Crédit Hôtelier, Commercial et Industriel 'small and medium-sized' businesses. The first three, and particularly the first, also act as rediscounters 'of first degree' for medium-term credits.

development so as to make it conform (even outside the 'traditional' public sphere) with the Plan, rather than with the pattern that would result from the spontaneous play of market forces. A mere description of the powerful apparatus of intervention at the authorities' disposal, however, is obviously not sufficient to tell us how important a role the exogenous planning instruments have actually played at various times.

3. The Monnet Plan

The original Monnet Plan (1947-50), especially during its first two years, depended heavily on instruments of a distinctly material kind, as well as on the 'power of persuasion' exerted by the consultational procedures of the concerted economy. First of all, it retained initially the war-time 'disciplines' regarding the allocation of essential raw materials, labour (wages), building permits, foreign exchange, credit rationing and prices. Secondly, it offered for the non-nationalised sectors which were important for realising the general aims of the Plan, and which were sufficiently concentrated,¹ the system of

contractual agreements between the public authorities and the industry concerned, the industry undertaking to realise the Plan, and the public authorities to furnish it with the necessary means (credit, materials, etc.) or to facilitate its obtaining them.²

Thirdly, there was in reserve the threat that, failing satisfactory agreements, a law³ might be applied which had given the government the power, for a transitional period prior to the 'return to economic freedom', to fix 'activity rates' (i.e. production quotas) for individual industries.⁴

The 'disciplines', and the agreements between government and business, which entailed dividing targets between firms (and hence planning at the level of the firm), all largely disappeared from the practice of French planning after 1948-49. But the idea that the Plan might be implemented by 'concertation', and by contractual arrangements between government and business, remained very much alive as we shall see. It set the tone for the so-called 'soft' techniques of intervention which are regarded as one of the distinguishing features of 'French-style' planning.

¹ It was acknowledged in the text of the Plan that there would be no possibility of reaching such agreements in sectors where production was dispersed among a large number of firms.

² Text of 1st Plan, p. 103.

³ April 1946. See also the law of May 1946 on 'production programmes'.

⁴ As Pierre Bauchet (1962, pp. 88-9) tells us, it proved unnecessary to make use of this procedure.

4. Price regulation

The prices of goods and services produced by sectors where the state possesses a monopoly are, of course, automatically controlled by the public authorities. Farm prices are regulated under special laws. And for all other products and services an order of June 1945,¹ which is still in force, authorised the government to regulate prices and trade margins.

The system of generalised price-stops (with permission for increases being granted as a rule only when costs rose as a result of higher raw material prices on foreign markets or of *force majeure*) was gradually relaxed after late 1947. There came into existence at this time a triple system. For some products, prices continued to be fixed by the authorities² which, however, now made adjustments from time to time on the basis of more flexible criteria than previously, and sometimes in a downward direction. Certain other products were completely freed from price control. Still others were put under what came to be called the '*régime* of controlled freedom' which meant that the authorities had to be given advance notice (usually 15 days) of any intended price increase and that they could intervene before this period was up to prevent an 'unjustified' or 'excessive' increase. Both types of price freedom were granted in the form of exemptions from the general price-stop order of 1945, so that it was open to the authorities at any time to annul the exemptions so far conceded, and to reimpose price-stops at the current level, stops from which new exemptions might be granted subsequently. A general price control was re-established in September 1952 and lasted with modifications for the next six years. It was more difficult to enforce in some branches where, for example, new or 'modified' products were put on the market, than in others; it was less strictly enforced by the authorities at some times than at others; and it was again partially abrogated by a series of exemptions which were after an interval annulled by a new general price-stop order, freezing all the prices at the currently prevailing level. General orders of this kind were promulgated in February 1954, July 1956, and August 1957. In December 1958, as part of the 'liberal' direction given to economic policy by the Pinay-Rueff reforms, a new movement towards price freedom was initiated. In granting exemptions (from the general price-stop order) use was increasingly made of the formula of 'complete freedom' as opposed to that of 'controlled freedom'. Indeed, the latter formula was little used after the end of 1960, and by early 1961 the vast

¹ The immediate purpose of the order was to validate most of the existing price regulations.

² The 'Direction des Prix' under the Ministry of Finance.

majority of non-agricultural prices were free from control. Steel was an exception, as it had been throughout. The years immediately after 1958 saw, however, the maximum of price freedom yet attained by France since the war. Early in 1963, price-fixing began to creep back, affecting first textiles, household appliances, and other commodities directly entering into consumer budgets. In the autumn of that year, an almost general price freeze was once again introduced. It covered trade prices of all industrial products, the retail prices or trade margins for many food-stuffs, restaurant prices and the prices of certain 'particularly sensitive' services. For all these categories price increases again required the express authorisation of the Minister of Finance.¹

Until 1963 there had rarely been any direct link between price-control policy and the Plans. The clearest exception was in the forward planning of certain agricultural prices attempted under the 3rd Plan (1958-61), but abandoned before the end of that Plan. Another case of a fairly direct link between price policy and the implementation of the Plan was in basic industries such as steel, where in the late 1950s price increases were sometimes conceded for the purpose of augmenting the funds (retained earnings) available to firms for investment.

Elsewhere, price-control policy was used during this period for the purpose, which it probably served ill on the whole,² of combating inflation. After 1952, it was conducted chiefly with an eye on the official cost-of-living index to which wages were tied.³ The price and rates policy in the public sector was especially dominated by the concern for keeping down

¹ The procedure was, however, made simpler than previously. Permission to raise a particular price or prices no longer had to be given in the form of an official notice published in the *Bulletin du Service des Prix*. (It has been said that this requirement had sometimes deterred industrialists from applying for increases because of 'bad publicity' for the products listed.)

² The system of always holding in reserve the possibility of reintroducing price-stops must have had the effect of sometimes discouraging industrialists from reducing prices (in response to increases in productivity, for example), for fear that they might get caught later with price-stops at lower levels. In other words, it has presumably been one of the causes of downward rigidity of prices, or the lack of 'competitive spirit', for which French industry has often been criticised. In December 1958, Jacques Rueff wrote: 'The . . . return . . . to price freedom'—a definitive return he had hoped—'will re-establish the competitive sense which had been dulled under the shelter of controls that were intended to check price increases, but were often regarded by the producer or trader as a protection against decreases.' (Jacques Rueff and others, 1967, p. 474.)

³ From 1952 on, not only wages, but also government support-prices for many agricultural products, and the interest and principal of many of the new issues of fixed-interest securities, were 'indexed', i.e. made to vary with some measure of the change in the value of money. After the end of 1958, indexing was forbidden for most wages (below, p. 32), for agricultural prices, and for new issues of securities, because of its tendency to turn price rises into a cumulative process.

this index, and there arose a distinct conflict of aims under the 3rd and 4th Plans, which had both included among their objectives (repeated in the 5th) the bringing of prices and rates in the public sector into line with costs, or the establishment of 'price verity', so as to remove the large and growing subsidies, particularly in transport.¹ A similar conflict had affected rent-control policy.

The return in the autumn of 1963 to a system of generalised price-stops, which the government declared to be only temporary (initially for six months), did not at first appear to mark a departure from the previous pattern. It seemed to be clearly a measure for implementing the 'stabilisation plan' rather than the 'Plan'. Subsequently, however, there appeared signs that the apparatus of price controls *might* first be made more permanent, and secondly be integrated more solidly into the instrumentation of the Plan. The general price-freeze was not removed after the initial six months' period; and during the first 15 months or so after its introduction price increases were as a rule sanctioned only for allowing adjustments to increased costs of raw materials, especially of those France was obliged to procure on foreign markets. The result was officially admitted to be excessive rigidity in the price structure, and the government sought to grant producers more flexibility in the determination of the prices of individual products, while stopping short of conceding them complete freedom. This latter course was judged inopportune so long as the reflexes of producers, consumers and savers, after their long conditioning by inflation, had not been re-educated to the exigencies of monetary stability.² Consequently, two forms of what was called 'contractual' price policy were introduced, one in January 1965 (by M. Giscard d'Estaing) and the other in March 1966 (by M. Debré³).

The first was the 'stability contract'. Such a contract is signed by the Ministry of Finance with the representatives of an industrial branch and allows firms belonging to that branch, and notifying their adherence to the contract, to raise the prices for some of their products on condition that they lower the prices of others, so that on the average their prices are stable. It runs initially for one year, but is renewable. The second formula, and the more interesting in our present context, is the 'programme contract' which may be negotiated by industrialists collectively (for the entire branch), or individually, and gives the firms adhering to it

¹ The French National Railways and the Paris Transport System.

² Cf. the preamble to the government order of 10 March, 1966, introducing the 'programme contract'.

³ M. Michel Debré replaced M. Giscard d'Estaing as Minister of Finance in the Cabinet reshuffle of January 1966.

the freedom to fix prices at the level they think fit on condition that they agree to abide by certain clauses and conditions on such matters as investments, wages, exports, etc. The contracts are signed for the duration of the 5th Plan, but may be reviewed annually. Price freedom may thus be withdrawn if the authorities are dissatisfied with the performance of the branch (or firm) concerned. Representatives of the two parties meet periodically to examine the elements of the situation and decide upon the desirability and conditions of continuing the engagement.

At the time this system of 'contractual price freedom', as it is termed, was introduced, it was thought that the authorities might be going to use 'price freedom' as a bargaining counter in connection with certain aims of the 5th Plan such as 'incomes policy' and mergers. It is, however, too early to say exactly what the system implies for the firms adhering to it, especially since the detailed terms of the 'programme contracts' are not made public. Probably such contracts may mean much or little according to circumstances and to the current direction of government policy. They are one of the 'flexible' planning instruments which have been developed in post-war France, and which allow the authorities to bring pressure to bear on firms to do or refrain from doing certain things if it is deemed necessary.¹

Early in 1967 some small beginnings towards the restoration of 'non-contractual' price freedom were made, some industrial products being placed either under the *régime* of 'controlled freedom' described above, or in a few cases under that of complete freedom. But the 'programme contract' was the formula the authorities preferred, especially for the more highly concentrated branches.

5. Government influence on wage determination

During the early years of the Monnet Plan, the government maintained a strict control over wages and made adjustments in them at irregular intervals. Early in 1950 most wages were in principle freed from government control and the system of collective bargaining restored. The government thereafter determined only the newly-created SMIG (*salaire minimum interprofessionnel garanti*), or minimum hourly wage-rate, which

¹ It should be noted that during the period of over three years that the price freeze had remained in force (except as modified in the ways indicated by the text), the authorities had succeeded in reducing the rate of increase in the supply of money far below the levels reached in 1962-3. The percentage increase in the amount of money and quasi-money in the respective years (calculated from the end-year figures) was as follows: 1962, 18.2; 1963, 13.7; 1964, 9.0; 1965, 10.0; 1966, 9.5.

after the middle of 1952 was put on a sliding scale moving with the cost of living. During the next few years, the SMIG, with its periodic—and up to 1955 big—upward adjustments tended to act as a pilot wage of which the movements were followed more or less closely in the collective wage contracts. It was not until 1955 that collective bargaining resumed its role as an independent force in wage determination. After the end of 1958, the automatic indexing of wages on the basis of the SMIG (or of a cost-of-living index) was prohibited as part of the Pinay-Rueff stabilisation programme, though the regulations concerning the indexing (on the basis of the cost-of-living) of the SMIG itself remained in force. Not very long after this, however, the government was deliberately seeking to influence the wage level in the private sector of the economy by trying to persuade employers to slow down wage increases at a time when they were giving in easily to trade union demands or even offering increases spontaneously. One instance of this attempted interference was the letter addressed by the Prime Minister, M. Debré, in March 1961 to the principal Employers' Association (the CNPF) inviting employers to keep to an increase of 4 per cent per year (or about half the ruling rate¹) and threatening non-obedient sectors with 'punitive' measures (an anticipated reduction of barriers to competitive imports) if this rate were exceeded. This invitation had small effect. Soon after the launching of the new stabilisation plan in the autumn of 1963, however, it was once more rumoured that the authorities intended to deal severely with firms which resorted to such practices as 'bidding up wages in order to draw labour away from other firms'. One possibility was that the authorities might make the sanctioning of price increases, or the restoration of 'price freedom', or the allocation of certain forms of financial aid, conditional upon the employers' exercising wage restraint in line with the 'incomes policy' envisaged by the 5th Plan. The introduction of the procedure of the 'programme contract' seemed to strengthen this possibility. But the qualification mentioned above about the contingent character of the exercise by the authorities of their power over the activities of private firms applies here also. For the time being, the 'reprehensible' practice of bidding up wages in order to draw labour away from other firms had declined with the slackening of the growth in aggregate demand under a stricter monetary policy.²

6. Licensing

Of the quantitative or physical controls which the Monnet Plan used in

¹ Jacques Rueff, 1965.

² Cf. p. 31n.

its early years, few remained subsequently. Some of these concern the oil sector where the government reserves special rights of supervision and intervention. Permits are required for opening new refineries, and (since 1963) for expanding old ones. Of more general application is the building permit required for almost all construction of both business premises and residential housing. Its main purpose in the past was that of enforcing certain building regulations and urban-planning rules; but under a regulation of 1964 the authorities may also use it to help 'guide' the regional distribution of new industrial development in the direction aimed at by the Plan. More closely associated with the latter so far has been the special installation permit required since 1956 for new plants and plant extensions above a prescribed size in the Paris area, with the object of promoting industrial decentralisation.

It is supposed to be characteristic of 'soft' planning, however, that it relies for its implementation not so much on licensing, or other physical restraints and prohibitions, or authoritarian directives, as on priority allocations of investment funds and on fiscal and financial incentives or disincentives.

7. Treasury aid for investment finance, and the role of the FDES

Under the Monnet Plan a large part of the country's gross fixed capital investment was financed from funds provided by the Treasury under various headings of the budget. In the first four years of the Plan the proportion thus financed was between 40 and 50 per cent, but by 1952-53 it had fallen to about 30 per cent. Thereafter the importance of Treasury funds gradually declined to about 25 per cent during the 2nd Plan, less than 23 per cent during the 3rd and little over 20 per cent¹ during the first three years of the 4th Plan.

The major part of Treasury financing of investments both of the 'national enterprises'² and of private industry takes place through a special Treasury account called the 'Fund for Economic and Social

¹ The provisional figure for 1964 was 19 per cent.

² The 'national enterprises' which draw finance from the FDES are the following:
a. Fuel and power sector: French Coal Authority, French Electricity Authority, French Gas Authority, the National Company of the Rhone (electricity), Atomic Energy Commission.

b. Transport sector: French National Railways (SNCF), Paris Transport Authority (RATP), Paris Airport, Air France.

Not all their investments are financed from Treasury funds. Part are financed by direct borrowing on the market or, in the case of the enterprises making a profit, from retained earnings.

Development' (FDES) which was established in its present form in 1955 following an arrangement created under the Monnet Plan. The loans are long term (i.e. for periods of over 5 years) and are made at interest rates which vary according to the borrower and the operation but which have generally been perceptibly below the market rates for similar accommodation.

The FDES, through its board of directors and its committees (on which the Commissariat au Plan is represented), can ensure that all investments, public and private, financed from public funds, and the order of priority in which they are accommodated, conform to the aims of the Plan. This body also deals in an advisory or executive capacity with many of the other aids and incentives offered to private industry for conforming with the Plan. For such purposes, which we shall discuss later, it has a dozen or so specialised committees.

Under the Monnet Plan, the Treasury had played a substantial role in financing not only the nationalised enterprises but also certain branches of private industry, especially steel. Its role in financing private industry declined subsequently. In 1958 and 1959 (under the 3rd Plan) the FDES made no loans to the basic industries in the private sector; and in the years 1960-61 and also 1962-64 (i.e. under the 4th Plan) it granted only small amounts. In 1961, the final year of the 3rd Plan, out of the total figure for gross fixed investments financed from Treasury funds (through the FDES or other headings of the budget) 'private industry, trade and tourism' took only about 5 per cent, and farming a similar amount. Thus the Treasury's financing of investments was by this time largely confined to the public sector of the economy (including the 'national enterprises') and housing;¹ its financing of private industry was very small. A rough estimate² indicates that in the years 1960 and 1961 the proportion of gross investments in the sector of 'private industry, commerce and tourism' financed out of public funds (loans and grants) was not much more than 4 per cent; and that by 1963 it had fallen to 2 per cent. Most of this finance went to three categories: 'small and medium enterprises' and artisans, the hotel industry, and larger industrial firms responding to the government's policy (begun in 1955) of encouraging decentralisation (away from Paris) and regional development, and 'structural reforms' in industry (i.e. regroupings leading to greater concentration and specialisation, and conversions from one kind of activity to another). For this third category, the

¹ The main item was the financing of the semi-public HLM (or 'moderate-rent housing' offices).

² Cf. FDES, *Tenth Annual Report*.

finance consisted partly of cheap loan capital and partly of outright grants or 'equipment premia'.¹ The FDES also provided a few loans for other purposes such as research into methods of improving 'productivity'.

The state had also sometimes aided private industry by undertaking to cover part of a firm's interest charges on funds borrowed by it directly on the capital market, so as to put these funds on a par as regards costs with the 'cheap' Treasury loans. Alternatively, a state guarantee would enable a firm or group of firms to place debentures on the market more easily or more cheaply. The 3rd Plan had seen a need for the state to continue the second and perhaps also the first of these methods of encouraging the 'most useful' investments, but after 1959 recourse to them gradually declined. By 1961, the terminal year of the 3rd Plan, they were probably of small importance apart from the state guarantee for bonds issued by the Regional Development Companies² (which also benefit from a government guarantee of a minimum dividend for their shareholders).

The tendency after 1958 was to reduce state participation in the financing of private industry, and to encourage firms to obtain their finance as far as possible through regular market channels, or in the case of the smaller firms from the Regional Development Companies.³ Operations for promoting regional development and 'structural reforms' of industry continued to occupy a special position, but with cheap loan finance declining in importance relatively to grants ('special equipment premia').⁴

Here again, however, on the eve of the 5th Plan there were signs of a possible change of direction from preceding years. The instrument of 'special loans' by the FDES appeared to be returning to favour. The *General Report* on the Plan stated that this method would be used to facilitate the structural regroupings of industry (mergers, etc.) to which a much higher 'national priority' was now being given. In the autumn of

¹ Under the new regulations for aid to regional development (May 1964), the 'equipment premia' were replaced by 'industrial development premia' relating to 'new' areas, and 'industrial adaptation premia' relating to 'old' industrial areas where the traditional activities (e.g. coal mining, the textile industry) are declining.

² The purpose of these companies, which were established under a law of 1955 and of which 15 (covering nearly all areas of France except the Paris region) existed by the end of 1965, is to provide medium- and long-term capital for the smaller firms which cannot make direct capital issues on the market. The chief means of providing such finance has been the (state-guaranteed) group loan issue.

³ It should be noted, however, that in the early 1960s the Caisse des Dépôts took over, to some extent at least, the role which the FDES had played previously as lender (on privileged terms) to certain private firms undertaking investment programmes judged to be 'in the national interest'.

⁴ In 1963 the amount of aid given by the FDES in the form of loans rose temporarily because of the exceptional aid given to the shipyards in that year.

1965, the government issued a National Equipment Loan partly for financing certain of the nationalised enterprises, but mostly for granting privileged finance to private firms in selected branches¹ on the basis of agreements specifying its use for such purposes as modernisation and reorganisation, concentration, decentralisation, research, increased production for exports, or in some instances simply the expansion of capacity. The steel industry was specially privileged. Besides receiving the largest allocation of any branch, it obtained exceptionally favourable terms regarding both the interest rate and the conditions of repayment. This operation prepared the way for a very much larger deal in 1966 when what was described as a 'new type of contract' between government and business was signed, under which the government undertook to provide the steel industry with a very substantial amount of privileged finance and other aids during the period of the 5th Plan in return for the industry's engagement to carry out regroupings and other structural reforms.² In bargaining with the government on the terms of this contract, the steel industry claimed a 'moral credit' on account of the long years of price control which had, as it said, kept its profits low and hence deprived it of funds for self-finance.

8. Qualitative controls over capital issues and credit

The earlier Treasury participation in the financing of industry was partly conditioned by the weakness of the capital market, particularly in fixed-interest securities. This weakness was also the dominant reason for another form of intervention by which the authorities influenced the volume and direction of investments in the private sector, namely selective controls over capital issues, over long-term borrowing from the three big public or semi-public credit institutes (Crédit National, Crédit Foncier and Crédit Agricole), and over medium-term borrowing from the banks.

a. Capital issues

Ever since the end of 1946 the Minister of Finance has had the authority to exercise control over all medium and large issues (those over 25 million old francs³) of both shares and fixed-interest securities. The strictness of the control exercised has, however, varied according to the conditions

¹ The branches selected were: steel, chemicals, motor vehicles, mechanical and electrical engineering, electronics, food products, 'small and medium' industrial firms, and the wholesale trade.

² The 'general convention' signed by the state with the steel industry was followed by conventions signed by it with individual steel companies.

³ Equivalent to 250,000 F. (new francs).

on the capital market. Originally the control meant that the dossier on the proposed issue had to be examined by a special committee at the Ministry of Finance for its 'economic interest'; and that if the Ministry gave its authorisation, it would also specify the date at which the issue might be made. As conditions on the capital market improved the authorities proceeded under the 2nd Plan progressively to simplify the formalities, until by September 1955 the control did not extend to examination of the investment projects' merits but required only that large issues of fixed-interest securities (100 million old francs and above) should obtain the agreement of the authorities on the conditions and date of the issue. The chief purpose was to establish an 'issues calendar' which would relate issues to the absorption capacity of the market.

Following the resurgence of inflationary pressures stricter controls were reintroduced in 1957-58. The Minister of Finance drew attention to the need to give priority to financing investment that would contribute towards making the country 'independent with respect to fuel and power' and towards improving its foreign trade balance by increasing exports and decreasing imports. These were the same investment categories as had been given top priorities in the 3rd Plan. It was now required that all large issues (100 million old francs and above¹) of both shares and fixed-interest securities should be given specific authorisation by the Ministry and a place in the official issues calendar. For fixed-interest securities the control was more severe than for shares: even medium-sized issues (between 25 and 100 million old francs) had to be brought to the notice of the Minister, who might require the terms to be modified or the date postponed.

In the second half of 1958 and the beginning of 1959, the regulations were again relaxed for issues of shares: by March 1959 the rule was that large issues merely had to be brought to the notice of the Minister of Finance, who might ask for their postponement. For fixed-interest securities the stricter rules mentioned above were retained. Now as before the distinction was dictated by the tendency for the fixed-interest securities market to be generally poorly supplied with funds in relation to the demand, and for the situation on the share market to be the other way round. From 1959 on, the fixed-interest securities market underwent a considerable improvement and a sharp reduction in interest rates was achieved. Nevertheless this market remained relatively thin and inelastic.²

¹ For companies engaged in prospecting for, exploiting and transforming oil and natural gas, the regulation applied to medium as well as large issues (i.e. to all issues above 25 million old francs).

² Lorain Committee, 1963, pp. 1,443 and 1,448.

A New Kind of Planning

It did not gain strength from the post-1958 prospect of price stability as rapidly as had been hoped, and the rationing of funds on it continued to be severe during the 4th Plan. An easing of the controls was announced at the beginning of 1966, but a year later the effect of the issues calendar was still to impose waiting-periods of a year or more on some private firms.¹

b. Lending by the credit institutes and the banks

The three big specialised public or semi-public credit institutes, and some smaller ones, make long-term loans for up to 15 or exceptionally 20 years not only out of the advances from the FDES already mentioned, but also and mainly out of non-Treasury funds (their own resources together with funds raised on the capital market). It is with these loans from non-Treasury funds that we are now concerned.² The rule has been that the *Crédit National* should grant large loans (for amounts exceeding 2.5 million F.) for financing only investment programmes approved by the *Commissariat au Plan*. Relatively few of these long-term industrial loans have, however, been of this size.³

Medium-term lending (for 1 to 5 years, or since mid-1965 up to 7 years) is mainly the province of the commercial banks. It has been the rule that loans above a specified size should be scrutinised by a member of the *Commissariat* for conformity with the Plan. For many years this rule applied to loans of 1 million F. and above; but again the number of loans reaching this size was probably not a very large proportion of the whole.⁴

At least until 1963 short-term lending by the banks had not been subject to control for conformity with the Plan. Not even the nationalised banks had applied qualitative controls to short-term loans, a fact which many planners regarded as a lost opportunity. Short-term loans must usually

¹ *Le Monde*, 2-3 July, 1967.

² Until 1958-59 most of these loans were granted at rates of interest perceptibly below the market level, the state assuming part of the burden of the interest charges so as to make the cost of funds borrowed from this source similar to those charged on Treasury funds. In 1960, however, the element of subsidisation was reduced, and in 1961 almost all of the loans were made at 'close to the market rates'. (*Conseil National du Crédit*, 1960 and 1961.)

³ Exact figures are not available. But the Lorain Committee reported that in 1962 out of a total of 475 loan operations, 325 were for amounts less than 1 million F., 79 for amounts of from 1 million to less than 2.5 million, and only 71 for amounts of 2.5 million and above. In early years the proportion of large loans had been somewhat higher, however. (*Op. cit.*, p. 1,472.)

⁴ Cf. Lorain Report, p. 1,475, where it is implicitly indicated that in 1962 the size of the individual operations for industrial and commercial firms in the private sector was on the average substantially below one million F.

have represented well over half¹ of the total amount of all loans to private industrial and commercial firms financed from resources other than public funds.

A step towards stricter qualitative control of bank credit, including for the first time short-term credit, was taken in connection with the stabilisation plan of September 1963. The banks were invited (not ordered) by the authorities to follow a selective policy in all their lending, for two purposes. The first was aiding the fight against inflation: banks were advised to reject applications for loans to be used for speculative purchases of raw materials, etc., and to give especially favourable consideration to industrial and commercial borrowers wanting to finance investments likely to reduce costs and prices, or desiring to set up or expand businesses in areas where labour was abundant. The second purpose was favouring (especially for medium-term loans) borrowers who 'respected the essence of the Plan' by, for example, modernising businesses under strong pressure from foreign competition owing to the lowering of trade barriers,² endeavouring to expand exports, investing in scientific and technical research, or undertaking structural improvements (leading to greater concentration and specialisation) in the apparatus of production.

c. Other sources of finance

One source of investment finance that remained outside the control of the planning authorities was the firm's internal resources of retained earnings plus depreciation allowances. This uncontrolled item was substantial: it has been estimated³ that the proportion of *gross* self-finance to *gross* investment for all private firms in the non-agricultural sector reached 76 per cent in 1960, though it fell to about 62 per cent in 1963. Many planners have urged that such self-finance ought to be regulated by the authorities.

All foreign investments in France are in principle subject to authorisation by the Minister of Finance under a decree-law of July 1947. Here too the rules had gradually been relaxed especially after the beginning of 1959, and were made stricter after 1963. The main object of this tightening up was, however, to prevent important branches of industry from falling wholly

¹ We cannot calculate the exact proportion. The statistics given by the National Credit Council include loans to the 'national enterprises' and loans made out of Treasury funds. On this basis, the proportion of short-term loans to the total of loans of all terms was 58 per cent at the end of 1963 and 1964.

² The following industries were mentioned in this connection: basic chemicals, steel, aluminium, pulp (paper), machinery, and heavy electrical equipment.

³ *5th Plan (Options)*, 1964.

A New Kind of Planning

or largely under foreign domination, or to guard against inflows of foreign funds that might create or aggravate inflationary pressures.

9. Fiscal instruments: general reforms

The main contribution of taxation policy to the realisation of the aims of the 2nd, 3rd and 4th Plans was seen as that of eliminating features in the tax system which hindered economic growth. Special emphasis was laid on the desirability of making taxation *neutral* as between different branches of activity and different forms (whether technical or legal) of business organisation. As the Plans remarked, non-neutrality meant that intrinsically less profitable lines of production, or less efficient forms of organisation, might frequently be chosen in preference to the more profitable or efficient ones, merely because the tax system discriminated in their favour. Thus it was a factor holding back desirable structural reforms in French industry.

For more than 20 years successive French Finance Ministers had had on their programme of tax reform this aim of tax 'neutrality'. A first big step in this direction was taken during the 2nd Plan, with the institution in 1954 of the tax on value-added (TVA).¹ This tax now replaced in most but not all cases the old indirect taxes and more especially the general turnover tax.² The latter, because it was cumulative from one sales stage to another, had discriminated in favour of the more highly integrated branches of production or forms of organisation; and by raising the cost of machinery relatively to that of labour it had discriminated against the more capital-intensive industries and techniques. Some of the initial exceptions to the general application of the TVA were removed under the 3rd Plan, and towards the end of the 4th (late 1965) a law was passed providing for the removal of the most important of the others (such as retail trade) in 1968.

Another task which, as the 4th Plan said, remained in France's quest for tax neutrality was a more complete elimination of the double taxation of the earnings of parent companies and their subsidiaries, which constituted an obstacle to those continual structural adjustments (creation of new industrial groups, concentration and specialisation of production and

¹ The object of the TVA is to hit only the value which the firm concerned has 'added' to the products it sells and not the value of materials, investment goods, services, etc., which it has used in production (or selling) and which have already been charged with the tax when sold by their producers, wholesalers, etc.

² In the early 1960s indirect taxes (the TVA and other indirect taxes levied for the benefit either of the central or of the local government authorities) constituted about 60 per cent of total tax revenues in France.

associations for scientific and technical research, etc.) which modern conditions required but in which France still lagged. This task was finally accomplished by the Law of July 1965 reforming company taxation and *inter alia* broadening the conditions under which the so-called 'privileged tax régime of parent companies' applied.

Increased neutrality of the tax system was regarded as an instrument of the Plan in as much as it removed obstacles to economic growth. But it is also an instrument which any country suffering from similar tax distortions might have used to promote economic expansion without engaging in 'French planning'. The same may be said of another tax reform introduced in 1960 to give general encouragement to investment activity by allowing firms to opt for an accelerated depreciation formula (based on the 'diminishing balance' principle) for industrial and other equipment.¹

10. Selective tax treatment

The adoption of fiscal measures of the kind just mentioned cannot be said to be particularly characteristic of French planning. Much more characteristic are the measures that discriminate between one activity (which 'conforms' to the aims of the Plan) and another (which does not 'conform').

One kind of tax relief which was 'selective' in this sense and was introduced in August 1957 related to new share issues by industrial and commercial companies that could show they were 'contributing to the realisation of the objects of the Plan' or towards the 'programmes for regional action'. In such cases, exemption for seven years from the company tax (then normally chargeable at 50 per cent on both distributed and undistributed profits) was granted on dividends of up to 5 per cent on the new capital. Although the customary phrase regarding 'conformity with the Plan' was used, the main purpose of this measure seems to have been to encourage firms to raise capital on the equities market.² That is to say, it belonged essentially to the many measures aimed at relieving the abnormal situation on the capital market. It also responded, albeit to a limited degree (especially since it related only to *new* issues),³ to the desire of many people to make it the general rule that the rate of company taxation should be lower on distributed than on undistributed profits, thereby encouraging companies to pay out more of their profits to shareholders and thus

¹ The provision was extended in 1962 to light industrial buildings.

² Conseil National du Crédit, 1960 (p. 160), and 1961 (p. 162).

³ Figures have not been published for all the years. But in the two years 1963-64, about 75 per cent of the volume of new issues was accorded the relevant benefit.

strengthen the capital market.¹ After several renewals, the law finally expired at the end of 1965 and was replaced by the new general rule introduced by the Law of July 1965, and reducing the tax paid by companies on distributed profits by one-half.²

In contrast to the 3rd Plan which had placed all the emphasis on the necessity of achieving 'neutrality', the 4th stressed that the tax system might 'go beyond neutrality' and 'play a selective role favouring certain operations . . . judged by the Plan to be particularly interesting', and that within the existing juridical and administrative set-up in France 'the fiscal lever figure(d) among the most important means of inducement at the disposal of the public authorities'. It observed, however, that the use of this instrument for the purpose described was rather a new thing, and that it needed cautious handling to avoid eating into the tax base or contravening the principle that the tax system should be simple.

Discussing the types of tax intervention that were relevant here, the Plan spoke first of the relatively familiar measures which applied to specific operations all over the economy, or else were selective by branch. Apart from those already in force, new tax inducements would, it said, be used in a strictly limited number of cases 'in favour of the realisation of the objectives of the 4th Plan which [were] the most difficult to reach'. One possibility, it suggested, would be the application of differential rates of indirect taxation (exemplified by the lower than standard rates of the TVA applying to some products used by farmers and to some foodstuffs of wide consumption, and the higher than standard rates applying to certain luxury goods). (This instrument was not, however, used as a means of implementing the 4th Plan.) Another possibility mentioned was special depreciation formulae. Prior to the Law of December 1959, which authorised the general adoption of the 'diminishing balance' method, numerous special systems of accelerated depreciation (representing exceptions from the old rule of the straight-line method) had applied to particular industries such as steel and mines, to firms doing a large export business,³ or to certain types of equipment; and after the 4th Plan came

¹ This point was mentioned in the 4th Plan.

² This provision also had the purpose of reducing the burden of company taxation from a level which, it was said, had been so high as to discourage good management and the avoidance of wasteful expenditure. The provision was said not to be in conflict with the 5th Plan's aim of increasing company funds available for self-finance because, though it might favour distribution of profits relatively to their retention, it need not reduce the latter absolutely. In other words, it was expected that the benefit of the tax relief would be shared in varying proportions between the two.

³ Export firms possessing the 'exporter's card' might deduct a complementary depreciation allowance varying with the proportion of the firm's sales exported. This scheme

into force,¹ a few additional privileged cases were added. Some of these special formulae were regarded as more favourable than the new general rule and firms were allowed to keep them, in preference to following that rule, during a transitional period which expired, however, at the beginning of 1965. The special depreciation formulae were thus another of the selective planning instruments that had now disappeared, at least temporarily. As the government stated when the relevant Bill was under discussion, the introduction of the new general rule was not intended to mark the complete end of its willingness to grant special depreciation *régimes* favouring particular sectors or activities which it desired to encourage. It has several times been reminded of this promise, especially by the steel industry.

The 4th Plan also said that tax discrimination might operate in favour of individual firms by way of 'case by case' exemptions granted by the Minister of Finance. The Plan noted that 15 special exemption procedures were already in force, and that eight of them were of 'great interest' in connection with the implementation of the Plan. One of the eight was the partial exemption from the company tax of dividends on new share issues. A second was the reduction to a nominal figure of the tax² (normally over 13 per cent) on transfers of land and buildings for business use, when these transfers took place in connection with industrial regroupings or with the programme of industrial decentralisation and regional development. A third was the application of the 'privileged tax *régime* for parent companies' to companies which did not automatically qualify for it under the general rule (as then formulated) but which might (under laws of 1957 and 1959) be granted it by special authorisation in approved cases. A fourth kind of relief was the partial or total exemption for a certain period from the local business tax³ for commercial and industrial firms which helped to promote regional development. Other reliefs related to taxes affecting operations for reform of the structure of firms (e.g. mergers), or the establishment of companies by groups of firms for carrying out certain activities in common.⁴

allowed some firms to write off their investments particularly rapidly. The exporter's card was introduced in the summer of 1957, when exports were difficult, and was granted to heads of businesses whose activity was sufficiently export-oriented.

¹ A law of 1962 provided that a special accelerated depreciation formula might be authorised, case by case, by the Minister of Finance for buildings (constructed before 1965), and this provision was used to promote the two aims of regional development and 'structural' improvements in industry. The same law also instituted a special formula for new buildings used for technical and scientific research.

² The *droit de mutation*.

³ The *contribution de patente* levied for the benefit of the local authorities at rates varying with the place and with the type of business.

⁴ An example was the *sociétés conventionnées* (footnote 1, p. 45).

In addition to the eight, the 4th Plan listed three tax privileges of interest to companies and institutions engaged in scientific and technical research.

In defence of these forms of 'selective' tax relief, the Plan remarked that their total incidence on the budget was 'relatively small'. Many people, however, saw more serious grounds for objection in another aspect of the 'case by case' treatment, an aspect to which I shall return presently.

Although all these forms of tax relief could be regarded, at the time when the 4th Plan was launched, as special facilities granted only in approved cases, some were to be extended to all cases in the wake of a tax reform aimed at removing obstacles to *general economic expansion* and would therefore cease to be instruments for imposing the *more specific* aims of the Plan. In July 1962, M. Giscard d'Estaing emphasised the point already made in the Text of the Plan, that it was the government's desire to arrive at 'generalised tax harmony and neutrality', and added that the incentives for carrying out the Plan should therefore preferably take the form of direct subsidies rather than of tax exemption. Before the 4th Plan came to an end, he had succeeded in carrying out a major tax reform, covering company taxation and part of the indirect tax system; and the reform had, *for the time being at least*, been entirely concerned with establishing 'neutrality' and not with 'going beyond' it.

11. Negotiations and procedures

The 'soft' methods of French planning, or the methods by which it has avoided authoritarianism, have depended in large measure on bargaining between government and business, or what has been euphemistically called 'the dialogue' between industry and the public authorities. The process of negotiating the benefits and privileges offered in connection with the Plan starts, in some cases, at the stage of the Commission work. Indeed, some of the exponents of French planning have deplored the fact that in some instances the Commissions' written reports have given more attention to the facilities they claim to need for implementing the Plan than to its more 'objective' aspects.¹ The 'dialogue with the public authorities', inside and outside the Commissions, is naturally conducted most easily in the basic industries and other sectors where the units are large and the number of firms small. This is one reason why French planners favour a higher degree of concentration in the many branches of French industry where the degree is still low. It also explains why some critics complain that the planning procedures work mostly to the benefit of 'monopoly groups'.

¹ For example, Pierre Bauchet, 1962, pp. 64-5 and 171.

On the other hand, it is the big firms that are most likely to be hit by controls over the sources of finance or by price controls which, even when generalised, can usually be more strictly enforced in the more highly concentrated sectors than in the less. To some extent, therefore, it could be argued that 'stick' and 'carrots' went together. For example, representatives of the steel industry have repeatedly claimed that the special facilities granted to it were a just and necessary *quid pro quo* for the price-stops to which it had long been subject. And in 1966, as we have seen, this argument seems to have carried considerable weight.

On the special tax concessions mentioned in the previous section, the 4th Plan remarked that while some would be granted semi-automatically, only those applications being turned down which were 'devoid of any real economic interest', others would be granted under the procedure of the 'fiscal contract' which confers privileged tax treatment on a firm or perhaps all the firms in a branch (represented by their trade association) in return for an engagement to undertake certain operations.¹ For facilities other than tax concessions, a similar though less formal and explicit procedure, that of the 'quasi contract', had been advertised in the spring of 1960 by the Interim Plan.² This procedure has been described as an exchange of letters between a firm and the administration, setting out the financial facilities (e.g. prompt access to funds, cheap loans, equipment premia, etc.) which the state agrees to grant, or declares itself willing to consider granting in the future, to aid a specific investment programme.³ The term 'quasi contract' had evidently been used to indicate the somewhat vague character of the agreement. The Interim Plan explained that the purpose of the new procedure was to make it easier for firms to take advantage of the 'big potential' of incentives allowed by the existing regulations, a potential which, it said, had not so far been fully exploited. However, although the 'invention' of the quasi contract received much attention in most of the numerous descriptions of French planning published during the first year or two of the 4th Plan, results fell short of expectations: very few quasi contracts were concluded under the Interim and 4th Plans.⁴

¹ An example of such contracts were the 'conventions' which a Decree of February 1959 had authorised the state (Ministry of Finance) to sign with companies formed by groups of small or medium-sized firms, granting specified tax facilities, on condition that the companies carried out an agreed programme to meet the new situation created by the formation of the European Common Market.

² It had, however, already been used in 1957-58: cf. Francine Batailler, 1964.

³ *Ibid.*, p. 369.

⁴ Francine Batailler (*loc. cit.*) found that up to the end of 1963 fewer than 10 had been signed.

Contractual arrangements between government and business are nevertheless widely regarded as having an increasingly important role to play in the future. Two recent examples of this tendency are the steel convention of 1966 and the 'programme contracts' introduced in the same year (and granting 'price freedom' rather than financial favours). In neither case, however, was the term 'quasi contract' used, presumably because these new agreements were supposed to be more substantial from a legal point of view than that term implies. A large number of 'programme contracts' were signed in the first 18 months.¹

12. Criticism of 'soft' and 'flexible' techniques of intervention

A prominent feature of the French system of selective incentives, or of planning 'by negotiation' between the public authorities and private business, is its resort to the 'case by case' method.

This feature has been severely criticised by planners as well as by economic liberals. Objections have been raised to its discriminatory character, the wide discretionary power it gives to the administration, the consequent danger of arbitrariness in the distribution of financial and other favours, the secrecy surrounding some of these favours and the resultant impossibility for parliament or the public to evaluate the merits and costs of the policy followed.² As Mlle. Francine Batailler observes, the attempt to avoid one evil, that of authoritarian intervention in the economy, has implied the acceptance of another, that of the breach of the rule that firms should be treated equally by the administration and the law.³ And Professor Charles Debbasch points out that the substitution of the new 'soft' methods for the old authoritarian methods of intervention has meant passing from a situation where the public authorities had only a limited power to intervene in specified sectors and in accordance with objective rules, to one where they have a general power to intervene in any part of the economy as and when they choose, favouring some firms to the detriment of others and giving new scope for the activities of pressure groups.⁴

The authorities themselves have pointed to one objection to the discretionary method. They observed that in the case of the regional development programme, this method had made it difficult for entrepreneurs to

¹ Some 75 such contracts, some covering large and others smaller sectors, had been signed by the autumn of 1967. (*Le Monde*, 4 October, 1967.)

² For example, P. Risssoyre, 1961, pp. 113-14 in 1964 reprint; Pierre de Calan, 1963, p. 238; Francine Batailler, *loc. cit.*, pp. 372 and 379; and Charles Debbasch, 1967.

³ Francine Batailler, *loc. cit.*

⁴ Charles Debbasch, *loc. cit.*; and Henri Denamur, 1967.

size up in advance their chances of qualifying for the benefits offered, so that many had been deterred from applying. It was thought that this might have been a factor reducing the effectiveness of the programme. Accordingly, the new regulations of May 1964 on aid for regional development abandoned the 'great flexibility', as it was termed, of the previous system in favour of a more precise set of published rules.

The system of selective incentives has also been criticised on the ground that, where firms have received favours from the authorities for 'conforming to the Plan', there has often been insufficient check (followed by sanctions if necessary) to ensure that the firms have kept to their part of the bargain. Some partisans of French planning have complained of the cynical attitude of industrialists who give their approval to the Plan at the Commission stage and accept favours for carrying it out, but who then go ahead with their private plans.

Here, however, we come up against one of the inherent ambiguities of 'soft' planning, namely the extreme vagueness of the notion of 'conformity'. I shall return to this aspect in the next Chapter.

V The Exogenous Instruments: 2

1. The extent of the use of these instruments, and the notion of conformity

We have seen that under the post-Monnet Plans, up to and including the 4th Plan, the planning authorities sought to influence the actions of the individual operators in the private sector partly by using 'sticks' (refusing access to the capital market or to medium- or long-term credit, enforcing a 'queue' for funds, price controls, etc.), and partly by distributing 'carrots' (privileged finance, other explicit or implicit subsidies, accelerated depreciation formulae, etc.). The authorities have never published any systematic account of the extent to which they used the various planning instruments, or of the frequency with which particular sectors or activities were hit or favoured. The information on this aspect of French planning is fragmentary.

The instruments on which the reporting has been most ample and regular (annual) are some of those that come under the purview of the FDES, such as aids (cheap loans, grants, interest-rate subsidies, and reductions of the property transfer tax) given for the two purposes of 'decentralisation and regional development', and 'structural reforms' of industry (regroupings and conversions). Until the end of the 4th Plan, the first head was by far the most important of the two.¹ For the years 1963-64,² the authorities have provided somewhat fuller information extending to statistics of the number of cases in which various forms of tax relief (other than that mentioned above) were granted. From the various fragments of information for these two years, the following incomplete picture emerges. Just over 100 firms on the average benefited in each of these years from the partial tax relief for dividends on new share issues; about 250 from the 'privileged *régime* for parent companies'; about 100 from relief of taxes on changes in the legal form of firms; and between 500 and 1,000³ from one or more of the aids (loans or grants, relief from the property transfer tax, relief from the

¹ In 1961-2, for example, it accounted for about 90 per cent of the operations under both heads combined.

² And for 1961-62, figures were collected by Pierre Pottier: see his article, 1964.

³ The figure cannot be calculated more exactly. Since the different aids are in some cases granted cumulatively, we cannot tell how many firms were involved after allowing for duplication.

local business tax, and the special depreciation *régime* for buildings) granted to promote regional development or structural reforms. Finally, close to 300 firms in each year benefited from the group loan issues made by the state-aided Regional Development Companies.¹

We still do not know, for any of the Plans or any of the years, how many firms in what branches² obtained special facilities under all the provisions in return for acting in 'conformity with the Plan'. We do not know how often it happened that a firm was refused access to funds or prevented from making a desired investment on the ground that this was 'not in conformity with the Plan'; nor (except in some cases) what kinds of activity were held to be 'in conformity' and what were not.

We shall not perhaps be far wrong, however, if we sum up the broad characteristics of the mode of applying the exogenous planning instruments to the private sector of the economy, under the post-Monnet Plans up to the 4th Plan, in the following way.

1. Explicitly favoured (after 1955) were two classes of activity described as 'industrial regroupings and conversions' and 'decentralisation and regional development'. These had specially-labelled carrots assigned to them. Promotion of exports was another frequent *quid pro quo* for favours, such as the right to apply accelerated depreciation formulae.³ (Since 1959 the direct subsidisation of exports has been forbidden to France and her partners in the European Common Market by the Rome Treaty.) Another activity explicitly declared eligible for favoured treatment was scientific and technical research. We may observe that most of these activities were among those which other countries without 'French planning' also aided. Moreover, in many of the cases where carrots were distributed, 'general economic development' may be as near as we can get to defining what 'conformity with the Plan' meant.

2. In times of 'good weather', the stick was generally used only lightly, and 'conformity with the Plan' interpreted very broadly to include almost any activity serving general economic development. In 'bad weather' (financial stringency, inflation, balance-of-payments difficulties), of which France has had a good deal, 'conformity' was interpreted more narrowly and the stick used more (sometimes very) heavily. Almost always sure of

¹ This is another item about which the FDES has given regular annual information.

² For 1964, but not for previous years, the FDES provided a sectoral analysis of the total amounts of new share issues benefiting from the partial tax relief on dividends (under the decree of August 1957).

³ See also the examples of the use (up to 1961) of financial and fiscal aids to encourage exports cited by Maurice Niveau, 1962.

escaping from its rap (apart from price controls) were branches or firms doing a large export business. And, on the whole, the criteria for establishing the order of priority for access to rationed funds were probably not very dissimilar from those adopted in other countries which, in difficult times, limited that access in the name not of 'planning' but of 'general economic policy'. What perhaps chiefly distinguished France's case from some of these others was that she had recourse to rationing, especially on the market for fixed-interest securities, over more of the time and even when the weather was comparatively 'fair', the object being to prevent interest rates from going as high as a free market would have required (in the absence of 'indexing'¹) in a country which had experienced a continual depreciation in the value of money for nearly half a century.

3. A special stick was used against firms desiring to set up or expand in the Paris area. But this too was similar to policies found during the same period in countries like Britain which did not pretend to 'plan' the economy.

4. The instrumentation of the Plan was not (as under the Monnet Plan) closely geared to the attainment of *sectoral* targets. In other words, it was not very selective between different branches of the economy, but served rather to favour activities common to a great many branches.

5. Probably most large firms (e.g. all those possessing the 'exporter's card'²) got some carrots. Many preferred to go without others, as for example when they chose an unsubsidised location for their industrial expansion instead of a subsidised one, presumably because it was more convenient or profitable to do so. Some large firms were also little or seldom hit by the stick in so far as they could largely rely on self-finance from retained earnings, and were little affected by price controls.

6. A great many of the smaller firms were not affected by either stick or carrots, in either good or bad weather.³

We cannot, however, put all of these characteristics of the method of implementing the Plan in terms of figures, and we cannot judge how influential the exogenous planning instruments were in steering the economy in the desired direction, or away from that which it would have followed 'spontaneously'. It is noteworthy that one of the aims most strongly supported by instrumentation, at least after 1958, was regional

¹ Above, footnote 3, p. 29.

² Above, footnote 3, p. 42.

³ France has about 750,000 industrial firms.

development, but that prior to the 5th Plan this aim was not 'quantified', so that there is no criterion by which to judge how far the results achieved reflect on the adequacy or effectiveness of the planning instruments employed.¹

2. The 'liberal' interlude

We have seen that the exogenous instrumentation of the Plan changed perceptibly in both nature and extent from one period to another. The 2nd Plan did not use the 'hard' planning instruments on which the Monnet Plan had partly relied; and it also brought a loosening of the grip of the state on investment, a smaller proportion of total investments being financed by Treasury funds. The 3rd Plan expressly recommended that everything possible should be done to proceed further in this direction, and towards the restoration of normally functioning capital and money markets. It saw a need for the public authorities to continue for some years to direct savings into investment projects that were 'most useful from the point of view of the general interest', sometimes at the expense of those that were more immediately profitable from the financial point of view, and for them to continue to exercise capital-issues and credit controls, and to grant subsidies, special loans, and loan-guarantees. But it saw this direction of investment by the authorities as a temporary expedient, which would be unnecessary when the supply of savings became sufficient to finance what it called all 'profitable projects'. During the last two years of this Plan, substantial progress was made towards strengthening the capital market, and this was accompanied by a tendency for the Treasury to withdraw from the role of lender, guarantor and subsidiser of loans for selected branches or firms, except in special cases.

At the same time, the 4th Plan was being prepared with its new emphasis on the use of selective fiscal instruments as a means of implementation. But even these were not intended to outlive the 4th Plan, and mostly disappeared before it came to an end.

Though marked by periodic interruptions and relapses, the post-1948 trend towards the rehabilitation of market mechanisms meant that the Plan gradually lost a good part of its (exogenous) instruments. And the pursuit of the aim of tax 'neutrality' had a similar effect. It is, therefore, not surprising to find critics objecting with increasing insistence as time passed that the remaining instruments, though they served certain *partial* planning purposes (e.g. control over steel prices, regional development,

¹ The results were, however, widely regarded as disappointing.

'restructuring' of industry), could not be said to amount to anything approaching that *integral* central planning of the economy which 'French planning' was supposed to be. By early 1962 at least, complaints were being simultaneously voiced of the shackles of the Plan over certain industries (e.g. steel), and of the ineffectiveness of the instrumentation of the Plan. The return to stronger interventionism after the autumn of 1963 increased the impression of an economy in the grip of the state, but still without a real 'Plan' as many people understood the term. In March 1964, six months after the adoption of the 'stabilisation plan', the Prime Minister, M. Pompidou, promised that the time would come when 'from the present dirigism we shall revert to liberalism'. Yet when the 5th Plan started (in 1966), this did not appear to be the direction economic policy was taking. The new ('contractual') price control *régime*, and the resumption of the practice of granting selected branches or firms privileged loan finance or other favours on condition that they followed certain government directives, seemed to point the other way.

It has often been remarked that during the post-war period France's economic policy-makers have repeatedly seemed to hesitate between two views of the direction they should take; on the one hand adopting measures of a selective character aimed at stimulating investment and expansion in particular sectors or even firms, and on the other developing general policies aimed at stimulating overall investment and expansion without discriminating in favour of particular sectors and firms. For a time, however, and especially during the years 1959 to 1963, this 'liberal' view did in large measure triumph. It was this tendency which caused increased emphasis to be placed in these years on the 'endogenous' method of implementation of the Plan. This method will form the main subject of the next Chapter.

VI The 'Logic' of the Plan: Original Version

1. 'Indicative' or 'soft' planning

We must now examine more closely the significance of the Plan defined, as it once was, as a system, detailed by branch and sub-branch, of precisely quantified 'objectives' which might be either targets or simply forecasts. During the period we shall be speaking of here no clear distinction was made, as was pointed out in Chapter III, between those of the Plan's figures that merely represented forecasts of what was likely to happen spontaneously in response to consumers' choices and the free decisions of entrepreneurs, and those figures that represented targets which the authorities intended taking active steps to reach in order to 'correct' some of the spontaneous tendencies in economic development. A similar vagueness attaches to the terms 'indicative planning' and 'soft planning', both of which have gained wide currency abroad as well as in France, as descriptions of 'French-style' planning. Most writers use the term 'indicative' in the wide sense to refer to any planning which depends on instruments that are of a 'non-coercive' or 'soft' character, even if they are sometimes what we have called 'exogenous'. Others take the term to mean that the planning authorities are concerned only with 'predicting the future and not transforming . . . it',¹ and prefer the term 'soft planning' to describe the broader conception. Still others use the two terms interchangeably.

In what follows I shall treat 'indicative planning' *not* as synonymous with 'soft planning', but as a sub-species of it. I shall assume that indicative planning in its 'pure' form does consist of prediction only, in contrast to other forms of soft planning which aim at deliberately leading economic development into directions different from those it would take 'spontaneously'.

M. Massé himself discarded the term 'indicative planning', which he had once used,² because he thought it was apt to give the false impression that the Plan was optional, or something without 'forces tending to ensure its realisation'.³ If the word 'indicative' is used in this sense, then of course

¹ Pierre Bauchet, 1962, pp. 33-5.

² For example, Pierre Massé, 1960.

³ Pierre Massé, 1963 (3). See also B. Cazes (a member of the staff of the Commissariat), 1962, p. 7.

no 'planning' can be purely indicative. M. Massé suggested that since French planning is 'less than imperative but more than indicative', a better description would be 'active planning'.¹ This looks like verbal redundancy, but may perhaps be excused as a reaction to the widespread tendency for the word 'planning' to be emptied of its meaning by the increasingly loose usage mentioned in Chapter III. We find a parallel reaction in Britain where Sir Robert Shone felt obliged to use the term 'purposive planning' to describe what was being attempted under the National Economic Development Council.²

2. The development of the theory of pure indicative planning

Nevertheless it was M. Massé who was chiefly responsible for working out a 'logic' or 'philosophy' of the Plan which made what I shall call 'indicative planning' in its pure form (of prediction only) appear 'active' by virtue solely of what we referred to earlier as endogenous methods of implementation (or the 'internal force' of the Plan) as opposed to exogenous methods (or 'external forces').³ According to this logic the Plan is self-implementing.

There is no implication here that French planning has ever in practice been *exclusively* of this kind. Members of the Commissariat have repeatedly pointed out that it has always relied partly on exogenous instruments. The importance of these instruments, however, declined between the Monnet Plan and 4th Plan. This tendency was already in evidence between the 1st and 2nd Plans, and when the 3rd was in preparation doubts were being expressed about the appropriateness of the word 'Plan' for describing what was then being called by this name.⁴ It was questioned whether the term 'centrally planned' could properly be applied to an economy which had a central forecasting service but was decentralised at the decision-making level, and in which only light use was made of (exogenous) planning instruments. After the end of 1958, the trend of official policy away from interventionism and towards the restoration of market mechanisms was, as we saw, still more marked. And this doubtless helps explain the increasing importance attached, under the administration of M. Massé, which started at the beginning of 1959, to the development and popularisation of a theory of the Plan that would fit the new practice. M. Massé has acknowledged that it was his predecessor at the Commissariat,

¹ See his preface to F. Perroux, 1962, p. 7.

² Speech delivered at Birmingham Chamber of Commerce, 10 October 1963.

³ Above, pp. 24-5.

⁴ For example, Pierre Maillet, 1956.

M. Etienne Hirsch, who first put the new kind of Plan, the 'harmonising Plan', into practice (beginning with the 2nd Plan). That it was M. Massé who provided the theory does not necessarily imply that he personally favoured the total dismantling of what remained of the apparatus of intervention which facilitated the reaching or approaching of certain targets. The theory (which he had begun to expound as early as 1952) was meant only to show that *if* nothing more was involved than what he has called 'national market research' or 'collective forecasting', or what others have alternatively called 'framework planning' or 'informational planning', this might plausibly be regarded as central planning of the economy. It is largely owing to his efforts that many people were converted to this view who would previously have been sceptical.

M. Massé's theory relates to French planning whittled down to a basic minimum. It must be emphasised that French planners never generally accepted the view that this minimum was sufficient. Whether, and to what extent, exogenous instrumentation was necessary to the concept of a genuine national economic plan has long divided the different schools, and a wide gap separates the minimalists from the maximalists. However, at one time at least all groups did accept M. Massé's theory of collective forecasting. Such forecasting was regarded as something upon which normative elements, backed by the appropriate measures of intervention, might be superimposed as desired. It was also supposed to represent that 'minimum of planning' which early in the 1960s most countries with 'liberal' economic policies, West Germany being the outstanding exception, had 'discovered to be necessary'.

The theory of pure indicative planning was not regarded, even by its inventors, as possessing very firm contours. It was admitted to be in process of evolution and subject to continual retouchings, in order to resolve ambiguities and contradictions whenever these appeared, and to allow for the lessons of experience. We shall examine later a number of these retouchings, some of which appear to be so substantial as seriously to weaken the theory. For the present we shall concentrate on the theory in its earlier and stronger form.

3. A plan for the market economy

The keynote of M. Massé's theory is the relationship which it predicates between the Plan and the market economy, namely that the Plan is not inimical but complementary to market mechanisms.¹ M. Massé has several

¹ For example, Pierre Massé, 1963 (1).

times described the Plan as a 'substitute for the market',¹ by which he means not displacing the market but *acting in its place* where it does not or cannot function effectively.

He has cited various cases. The price system may be temporarily disrupted, as in periods of acute shortage such as the war and immediate post-war years. Or the market may not be working satisfactorily for some more permanent reason, the most conspicuous example for France in recent years being the capital market where spontaneous saving by households has fallen behind growing investment needs, in consequence of income redistribution (or taxation) and of the deterrent effects of half a century of inflation. We are given to understand that the Plan may in these circumstances have to arrange for some kind of 'collective' saving to fill the gap left by the shortfall of individual savings.² Or, again, there may be distortions in the formation of market prices due to monopoly. Or certain goods and services (or social costs and benefits) may not be priced on the market at all. All such cases are fairly familiar from the traditional theory, and are widely regarded as justifying *ad hoc* forms of government intervention or what we have called 'partial planning' from the centre.

The inadequacy of the market with which M. Massé's theory is especially concerned is, however, of another and quite general character, and the proposed remedy is also different.

4. The missing link in the classical theory

According to M. Massé and his followers the classical theory of the functioning of the decentralised market economy failed altogether to deal with the problem of differing expectations about the future. They point out that the usual description of the way in which market mechanisms guide economic operators in the making of their investment and output decisions runs in terms of 'explicit price signals', consisting either of current prices or of the prices quoted on forward markets which, however, exist only for a few commodities and cover only a relatively short period ahead. Any number of examples can, indeed, be found in the literature of this conventional description; and it may be fairly commented that many exponents of the virtues of the market economy have been remarkably careless in their formulation of the way it works. Obviously the explicit price signals

¹ Pierre Massé, 1952; 1960; and 1965, pp. 43 ff.

² The way which is now generally envisaged, as for example in the 5th Plan, is an 'incomes policy' which will assure firms of profits sufficient to allow them to undertake an adequate volume of self-finance. (Below, p. 163.)

which exist are not a sufficient basis for making investment decisions of which the results depend on future prices, sometimes at dates many years ahead. In reality firms are generally obliged to rely, not on explicit price signals, but on forecasts of future demand and cost conditions compiled with the aid *inter alia* of market research studies. Over the past 30 years or more, economic theorists analysing the determinants of the investment decisions of the firm have given ample recognition to the fact that the 'data' which have to be used are not known, but expected or estimated, prices (and costs). Without questioning the existence of this theoretical analysis and the fact that current business practice follows the same principles, M. Massé and other French planners contend that there remains a problem which the neo-classical theory has ignored. 'The individual expectations of firms are', says M. Massé, 'in serious danger of being inconsistent with one another.' And since consistency of the forecasts is a necessary (though not, of course, a sufficient) condition for their accuracy, they must be harmonised. He mentions three ways of doing this.

One admittedly impractical way would be through a system of futures markets on which everybody had to register today his demands and offers for future time-periods. Another way is authoritarian direction from the centre. The third way is the French method of instituting a central service of national market research which coordinates all the forecasts, or draws up a National Plan that renders all the individual plans compatible with one another, thereby playing much the same role as futures markets if they existed¹—the role of what M. Massé calls a 'generalised market'.² According to M. Massé, we do not have to choose as many have supposed between the market economy and 'the Plan', but first between 'the plans' (made by all the individual operators independently of one another) and 'the Plan'; and secondly between the market economy and dirigism.³

French planners claim that the circumstances of modern industrial society have caused the spread all over the 'West' of the conviction that the coordination of the investment (and output) plans of the individual economic operators through centralised or collective forecasting is desirable. Technological developments have, they remark, imposed in many sectors larger indivisible units of investment than formerly, with longer amortisation periods, and sometimes longer periods of research, preparation and construction, so that investment decisions need to be based on longer-term and more exact forecasts of future market prospects and other

¹ Pierre Massé, 1959 (2nd ed., 1964, pp. 474-5 and 489); 1962 (1), pp. 6-7; 1963 (3); and 1965, p. 46.

² Pierre Massé, 1962 (2).

³ Pierre Massé, 1964 (4).

conditions. But the longer the period over which it is necessary to look ahead, the greater is the danger, they say, that forecasts made by different sectors independently of each other will prove mutually inconsistent, and the greater is the need for their deliberate harmonisation or coordination. In other words, there is a problem of reconciling expectations which, though not new, has become much more serious in recent decades; and the consequences of failing to solve it have become more costly.

5. Transparency and coherence

Collective forecasting, or 'market research on a national scale', is supposed to make a twofold contribution to the solution of this problem. The first is that of rendering the economy 'transparent', by gathering together and making generally available the knowledge, beliefs and intentions (often referred to for short as 'information') of the individual economic agents regarding future developments in their respective sectors. The second is that of making economic activity 'coherent', by welding the individual forecasts and plans into a consistent whole, corresponding to a 'common view of future economic development'.¹ This last phrase conveniently sums up an aspect of collective forecasting to which I shall have frequent occasion to return.

It is generally assumed that the 'coherence', or coordination, of individual plans requires the overall growth rate for the economy to be 'chosen' *ex ante* by the Plan, instead of being left simply to reveal itself *ex post* as in the unplanned market economy.² In other words, the growth rate is usually regarded as the one indispensable 'normative' element in the Plan, even if there are no others. This view is not, however, absolutely necessary to the theory of collective forecasting. The growth rate could be treated as no more than a prediction (obtained from the various branch forecasts by a process of aggregation) without detracting from the essentials of this theory. Nevertheless the presumption is that co-ordination will be better, and the branch forecasts more certain, if the growth rate is taken as a target to which the government is 'committed' and which it therefore 'defends'.

The procedure by which 'coherence' of all the branch forecasts is obtained under French planning was mentioned briefly in Chapter II. After the Vertical Commissions have prepared the forecasts for their individual branches and sub-branches, all the forecasts are put together and tested for consistency with each other and with the overall targets of the Plan.

¹ *5th Plan (Options)*, 1964, pp. 40 and 41.

² Bernard Cazes, *op. cit.*, p. 13.

Where serious inconsistencies are revealed, 'adjustments' are made on the basis of consultations between the Commissions and between these and the Commissariat, and of what are called 'arbitrages' between the various parties. Great importance has been attached by French planners to the coherence of the forecasts thus obtained and to the resultant 'coordination', as it is assumed, of entrepreneurs' investment decisions. This coherence, though not as M. Massé has said the 'sole virtue of the Plan',¹ was supposed to be the feature which caused the Plan to act as a 'reducer of uncertainty' for operators all over the economic system.²

A corollary of this conception of the Plan's function was that the forecasts ought to be made by branch and sub-branch as finely divided as possible, and not merely at the level of the big aggregates or sub-aggregates. In the last analysis the forecasting had to reach down to the individual product if it was satisfactorily to perform that harmonising function which the classical theory of the market economy had allegedly neglected. It might seem also that the planning would need to be done at the level of the firm rather than the branch, but we shall defer consideration of this view to Chapter XI.

6. Planning as collective forecasting

According to M. Massé's theory, coherence of the forecasts is practically sufficient by itself to explain how the Plan 'works'. The theory holds that the 'logical element' which resides in the proven internal consistency of the Plan makes it seem reasonable to economic operators to conform to the Plan's forecasts,³ and that this element gives the Plan a 'power of persuasion' which causes it to be implemented or realised, and makes it 'a Plan in the real sense of the term', even if it has little if any instrumentation from outside. As M. Massé has said:

The plan . . . is an ensemble of coherent prospects which all the participants have an obvious interest in endeavouring to make materialise, since the production of each is the market for all.

He adds, however, that

. . . it is a guide and not a master. Each firm keeps its own responsibilities, and when there is a divorce between the objective of the Plan and the demand of the consumers, it is the latter, not the former, which has the last word.⁴

¹ Quoted by G. Turin, 1961.

² Pierre Massé, 1962 (1), pp. 6-7.

³ For example, *La Documentation française illustrée*, 1962, p. 139.

⁴ Pierre Massé, 1959 (2nd ed., 1964, p. 380).

A New Kind of Planning

Or, as he expressed the same idea on another occasion:

Every branch of activity is promised the possibility of acquiring its productive factors and selling its goods on a balanced market, [but] the promise is . . . only kept if everybody plays the game. [It] merely acts as an incentive. It is not binding on anybody.¹

Or again:

Firms are not dispensed [by the existence of the Plan] from working out their valuations and choosing their own attitude concerning risk. But they do so in a better-informed manner . . . Partial adjustments remain necessary while the plan is being carried out, under the influence of the market, operating in a frame which allows it to work more smoothly. Thus the economy retains its flexibility and every participant a feeling of liberty.²

And similarly, the section in the Text of the 4th Plan devoted to the 'means of execution of the Plan' states that:

The first reason for success of the plan is its coherence. The very methods by which the forecasts are drawn up means that they pre-figure a general equilibrium of exchanges of goods and services at the end of the plan. This prospective equilibrium does not become a reality unless all the economic agents conform to the recommendations of the plan, but it is obviously a powerful factor inducing them to move in this direction.

There follows the passage (quoted above, page 21) to the effect that a distinction must, nevertheless, be made between the programmes for the 'basic' products and services which must be fulfilled if the growth target is to be reached, and those for the wide variety of manufactured goods which must be regarded as, to some extent, flexible.

This outline of M. Massé's original 'logic' of the Plan represents the stage his ideas had reached in the period 1959-63, that of the preparation and the first phase of the 4th Plan, although they were clearly the fruit of much longer reflection going back at least to 1952. This 'logic' was regarded at the Commissariat not as pure theorising but as representing the way the Plan worked in practice.

A first question which may be put is: Supposing that collective forecasting performs in practice the function of 'coordinating' economic activities which the theory assumes, can it justifiably be called central planning of the economy? There seems a *prima facie* case for saying that it can. The role it is supposed to play appears similar to the role of central economic planning as conceived by the fathers of the idea, the Saint-Simonians,³

¹ Pierre Massé, 1962 (2).

² *Ibid.*

³ We may recall a celebrated passage from Saint-Amand Bazard's exposition of the Saint-Simonian doctrine:

even if the method by which the 'direction' from the centre takes place is distinctly different. This much granted, however, it appears necessary to add a qualification. The theory allows that individual operators may deviate from the forecasts contained in the Plan; that they will proceed in the light of current market and other developments and their own changing estimates of what is going to happen in the future; and that they may 'adjust' their own private plans continually during the period over which the official Plan extends. Clearly then, what M. Massé calls 'playing the game' will be compatible with this process of 'making the necessary partial adjustments' only if these are small. If they are large, the Plan's 'flexibility' will deprive it of its 'co-ordinating action'. It follows that the Plan will play the role assumed by M. Massé's 'logic' only if the collective forecasting, detailed by branch or product, is of a high degree of accuracy and is actually followed by the operators in all the branches as a basis for their plans.

It is true that there is a narrower interpretation of the 'logic' of the Plan, according to which the latter coordinates only 'the most important' investment decisions,¹ but this was not the dominant interpretation prior at least to the 'new look' given by M. Massé to his theory in 1963-64 and discussed in Chapter XV below.

7. 'Liberal planning'

Provided central planning of the economy means for the private sector no more than collective forecasting or market research at the national level it is acceptable to many—though by no means all—economic liberals in France. This is what is meant by so-called 'liberal planning', which M. Massé has frequently been judged, approvingly by some and disapprovingly by others, to advocate. The objection of some liberals is that French planning has not stopped at mere forecasting so far as the private sector is concerned, but has sought to direct investment and production by means

Each individual has to rely on his personal knowledge; there is no overall view governing production; this takes place without discernment, without foresight; it is short at one point and too great at another. It is to this lack of an overall view of consumption needs and productive resources that we must attribute those industrial crises, concerning the origin of which so many wrong views have been and continue daily to be expressed. If in this important branch of social activity so many disturbances and so much confusion are seen to manifest themselves, it is because the allocation of the means of production is made by isolated individuals, ignorant of the needs of industry and of men, and of the means of satisfying those needs.' (Italics in the original.) (Saint-Amand Bazard, 1829 (pp. 258-9 in 1924 edition).)

¹ Pierre Massé, 1959 (2nd ed., 1964, p. 475).

of the (exogenous) planning instruments described in Chapter IV. At the same time planning groups further to the Left have complained that after 1958 the government, yielding as they said to neo-liberal pressures, sought to reduce French planning to 'mere forecasting'.

8. Influence of M. Massé's theory abroad

During this period the conception of central planning as the coordination of economic activities through medium-term forecasting gained a wide following extending beyond France; and many people abroad tended to identify French planning with this conception. Indeed it is M. Massé's 'philosophy of the Plan' recounted in his many lectures and writings that has so far dominated much of the thinking about French planning in other countries and created the impression that what is primarily involved is centralised forecasting or what many people still prefer to call 'indicative planning'. The notion that this kind of planning will help promote the more rational and efficient use of the nation's resources has won acceptance in a number of countries.

Some of the signs of the progress made by this idea in Britain may be cited as an example. In the summer of 1961, shortly after the Chancellor of the Exchequer (Mr Selwyn Lloyd) had proposed setting up a National Development Council, the (London) *Observer*¹ published an article entitled 'A Plan for a Free Economy' which included the following passage:

The first contribution that a Central Planning Board might make can best be described as a coordination of forecasts made in different parts of the economy. If the motor and machine-tools industries are working on different ideas about the likely demand for cars in future years, the result will be either surplus capacity in one sector, or a great bottleneck in the other—depending on whose forecast turns out right. Similarly there is trouble in store if the Government's plans for its own expenditure and for investment in the nationalised industries are based on a different estimate of the probable growth of total industrial production than that of the privately-owned basic industries such as steel, chemicals and oil.

About two years later Mr Christopher Saunders wrote:²

Sensible forward planning [in steel and other highly capital-intensive industries³] can hardly be conducted without a reliable view of the prospects for demand in the economy as a whole. In fact there has never been more than a 'working

¹ 28 August, 1961. An article extolling French planning methods had been contributed to the same newspaper by Mr Andrew Shonfield earlier in the year (30 April).

² Christopher T. Saunders, 1964, pp. 64-5.

³ In addition to steel he mentions coal, electricity, gas, atomic energy, and oil refining.

assumption' about total demand to which no government has been committed. Indeed, the managements of the various public industries have used different 'working assumptions'. The result, particularly conspicuous in the steel industry, has been an alternation between serious shortage, leading to expensive imports, and . . . pronounced over-capacity.

In 1965, Britain's 'National Plan' described the 'nature and purpose of planning' in terms which also bore an unmistakable resemblance to M. Massé's conception. It said that 'co-operative planning and the market economy . . . complement each other'; that 'both government and industry have to plan several years ahead and it is desirable to coordinate the forward estimates of both'; that 'the assembly of the forecasts and plans of private industry is a great help in planning the public sector'; that 'industrialists should benefit both from the collection of the plans of other industries which are their customers and from a knowledge of the intentions of the Government'; and, finally, that:

'The projections in the Plan are essentially attempts by Government and industry, working in co-operation, to break down the global objective of a 25 per cent growth rate into the implications for particular industries'; and that 'these projections should help firms and industries to take more informed decisions than if they were left in the dark about other people's intentions and beliefs.'¹

9. Purposes of comparing forecasts with performance

In the early 1960s high hopes were raised in a number of countries about the benefits to be gained from adopting French planning. The 'better coordination of investment decisions' credited to the Plan was held to be partly or largely responsible for the greater efficiency of investment in France compared with other countries since the war;² and attempts were even made to measure the amount of the economising of investments due to this factor.³

Can French planning justifiably be said to have had the effect claimed for it? How well did the theory work out in practice?

In the endeavour to answer these questions, I shall devote the next two chapters to comparing the forecasts and/or targets for each Plan with the

¹ *The National Plan*, 1965, p. 3.

² For example, OECD (formerly OEEC), 1962. In the United States, Professor James Tobin lent his support to the view that French planning had worked in this way: cf. his article, 1963.

³ One estimate is that the avoidance, through the Plan, of duplications and surpluses of capacity had meant an economising of investments (necessary to achieve the same growth rate) equivalent to 2 per cent of gross domestic production. (Pierre Massé, 1963 (1), p. 50, referring to a calculation made by the OECD early in 1962.)

realised results. I shall take the view that such comparisons help us assess the effectiveness of the successive Plans, irrespective of which of the several possible conceptions of French planning may be said to have been operative. The Plan may have been a set of targets towards which the authorities tried to push the economy by using the exogenous instruments described earlier; or it may have been simply collective forecasting, or indicative planning, made 'active' by the endogenous instrumentation consisting in the 'force of persuasion' exerted by the 'coherence' of the Plan; or it may have been a combination of the two. A comparison of the projection with the performance measures in the first case the efficacy of the policy measures taken to drive the economy towards the chosen targets, in the second case the accuracy of the Plan's forecasting purely and simply, and in the third the efficacy of the two kinds of 'instrument' together. In all these cases, however, the comparison is in a sense a test of forecasting accuracy, since targets are in effect forecasts which the authorities intervene to 'make come true', and act as 'coordinating points' for the whole system just as forecasts do or are presumed to do. Consequently, I shall for the time being generally use the terms 'target' and 'forecast' as though they were interchangeable.

The significance of the comparisons I shall undertake is another of the many aspects of French planning about which there are sharp differences of opinion. Many exponents of French planning are inclined to frown upon using such comparisons as a measure of its efficacy. It seems to me, however, that we are bound to use them if we take seriously M. Massé's 'logic of the Plan' as originally formulated. Given that the Plan—or the projection—was supposed to act as a guide to economic operators, we are justified in asking whether it was a reliable guide. The 'new look' given to the logic of the Plan at a second stage may, it is true, impose different criteria; but this did not officially come into vogue until 1963–64. And it was partly the record of generally poor predictive accuracy which, by shaking people's confidence in the original theory, made the 'new look' seem necessary.

Testing the degree of realisation of the Plan is, moreover, not the sole purpose of the comparisons. By reason especially of the detail by branch and sub-branch into which the French Plans have gone, the comparisons provide us with illustrations not otherwise available of various facets of the forecasting process, some of which may turn our thoughts in a direction quite different from M. Massé's 'logic of the Plan'.

PART TWO

The Record of the Plans

VII Comparison of Forecasts or Targets With Performance: 1

1. Problems and methods

Considerable difficulties confront the investigator who wants to compare the forecasts or targets of the various Plans with their outcome.

First, there are general methodological and statistical problems such as are met to some extent in all comparisons of the kind. The long time taken to prepare the Plan both diminishes the up-to-dateness of the statistics on which the planners must rely concerning past performance, and lengthens the period for which they are effectively making their forecasts of future developments. The planners have made efforts to narrow this gap, at least in the final document; but one consequence of these efforts has been to create other sources of statistical discrepancy which complicate the task of making a valid comparison between the forecasts and the observed performance. In the case of the 4th Plan, for example, the 'reference date' used by the Commissariat in making its preliminary forecasts for 1965 for the 29 large branches and for the broad categories of the national income accounts was 1959. The Commissions' detailed forecasts by branch and sub-branch were made on this same reference base, as was the final synthesis of these forecasts to form the national aggregates (gross domestic production and its uses). In the final document (*Text of the 4th Plan*), however, the big aggregates (of the national income tables) were shown on the base 1961.¹ After the Commissions had completed their work the Plan's statistical services had, that is to say, interpolated between the accounts for 1959 and those for 1965 provisional accounts for 1961,² the final accounts not of course being available in the autumn when the Plan was submitted to the various superior authorities. There was thus a provisional element in the reference-year figures which had to be corrected later, as did the forecasts based upon them. In analysing the figures of the 4th Plan, we shall generally adopt the 1961 (instead of the 1959) base for all the items,

¹ For the 3rd Plan the first 'synthesis' was made looking forward from the figures for 1954, but in the Text of the Plan the reference year adopted was usually 1956, though in many instances still 1954. The 2nd Plan had been more 'coherent' in this respect, the same reference year (1952) being used throughout.

² Commissariat au Plan, *Rapport sur l'exécution du Plan en 1962 et 1963*, pp. 277-8.

The Record of the Plans

even though this procedure means using reference data that were not known when the Plan was drawn up.

From the various Plans numerous cases could be cited of items for which the value assumed for the reference year diverged markedly from the 'true' value in that year. Particularly important examples are found in the population data. Both the 3rd and the 4th Plans' figures for population and for the size and sectoral distribution of the labour force had to be based on the 1954 Census data and on estimates of subsequent changes. There were big errors in these estimates. Similarly the branch-output figures assumed for the reference-year have in some instances been markedly different from the true levels.¹

The statistical difficulties are not confined to such uncertainties about the reference data. The length of the time between the reference year and the terminal year creates other measurement problems which make it inevitable that a comparison between the forecasts (or targets) of the Plans and the results achieved cannot always be very rigorous. Obvious factors here are the revisions, sometimes made within the planning period, in the composition and weighting of index numbers and in the commodity and other classifications used in the statistics.

Another problem is that short-term fluctuations may overlay and conceal the trend-line. Precise forecasts are normally made (or targets set) only for the terminal year of the Plan, since it has so far been accepted that the 'projection' cannot anticipate the development 'path' year by year, but must make do with the average rates for the entire period covered. One consequence is that, if the rate of growth in a branch drops to a negative sign in the terminal year of the Plan, we may be uncertain as to whether or not we should say that the Plan was fulfilled in that branch.² Such cases are apt to occur most frequently in agriculture; but a noteworthy instance in industry was that of motor-vehicle production in the terminal year of the 3rd Plan. A second consequence of the absence of any valid assumption about the 'path' towards the end-year forecast or target is that it may be impossible to tell at intermediate dates whether or not developments are proceeding 'according to plan'. We shall refer later to a number

¹ Discrepancies were most marked for some items in the 1st Plan. Certain of the figures assumed for the year 1938 (and even 1929) in the original Plan, or in subsequent revisions, turned out to be seriously wrong according to the revised statistical series published later by the National Institute of Statistics and Economic Studies (INSEE).

² An analogous problem arises if productive investment is lower in the terminal year than forecast, but lower also than it was in the pre-terminal years, as happened under the 4th Plan.

of instances where the movement during the early years of the Plan led to a false appraisal of what was going to happen over the entire period covered by it.

A second major difficulty is caused by the incompleteness of the documentation. The task of assembling the figures necessary to compare forecasts (or targets) with the results achieved is more arduous than appears from most of the accounts given in books and articles on French planning. Many accounts have relied on the summary comparisons for each Plan given in the text of the following one, but in these comparisons the figures for the results are only preliminary, and subject to substantial revision. For final figures we need to consult the *Annual Reports on the Execution of the Plan*¹ or the regular INSEE publications, but in neither source (and particularly the latter) are the groupings always the same as those used in the Plan. So far as possible, however, my comparisons will be based on the final figures or, rather, the latest figures available at the time of writing, not all of these necessarily being 'final'.

Most of the comparisons given in the literature on French planning have concentrated on the big aggregates of the national income statistics, the big sub-aggregates and output in a few 'basic' industries, without entering into much detail on branch, sub-branch or product. Yet it is essential to enter into some detail if we want to answer the questions posed at the end of the previous Chapter regarding the effectiveness of the so-called 'harmonising' or 'coordinating' Plans. The items with which I shall deal are, nevertheless, only a very limited selection of those that would enter into an exhaustive treatment. So far as the analysis by sectors or branches is concerned, I shall for the most part concentrate on the figures for output (or in a few cases consumption) along with those, where given, for productive capacity. I shall mention the branch figures for foreign trade and other items only incidentally. Even for the limited area I propose to cover the extent of the detail into which it is possible to go on the basis of the published information varies from one Plan to the next, so that comparisons between Plans cannot be very exact. The explanation is not only the differing degree of detail in the forecasting, but also the differing extent to which the Commissariat, or the INSEE, has supplied figures of performance for the same categories as those for which the forecasts were made. The documentation available is much fuller for the 3rd Plan than for the 2nd, and fuller for the 4th than for the 3rd. But in no instance is the published record, even when we have

¹ The *Annual Reports* that are important in this connection are those for 1952, 1958, 1961-62, and 1965-66.

The Record of the Plans

assembled all the available fragments, as complete as we would like.¹

A third problem concerns the choice of a standard to measure the difference between the predicted quantity and the observed quantity for each of the various items. Two methods of calculating such a 'realisation index' are possible. First, we may express R_a , the realised quantity in the terminal year, as a percentage of P_a , the predicted quantity for that year. This gives us the formula for what I shall here call the 'A' realisation-index:

$$A = \frac{R_a}{P_a} \times 100.$$

Perfect realisation is represented by 100.

Alternatively, we may use what I shall call the 'B' realisation-index, which relates the realised percentage change in the quantity between the reference year and the terminal year of the Plan to the predicted percentage change over that period. Taking R and P as index numbers on the base 100 in the reference year, the formula for this index is:

$$B = \frac{R - 100}{P - 100}.$$

Perfect realisation is represented by unity.

Each formula has advantages and disadvantages. We can calculate comparable 'B' indices for all the items only if we have a set of figures all relating to one and the same reference year, and when a Plan has used different reference years for different items we have to assemble a 'coherent' set ourselves.² We may thus be using reference-data different from those which appeared in the Text of the Plan or, as mentioned above, data which were not known when the Plan was drawn up. Moreover, the 'B' formula has the inconvenience of occasionally giving values equal to $\pm \infty$. The 'A' formula is in any case more appropriate for some purposes, such as that of judging how far the Plan's forecasts were an effective guide to the operators in any branch taken singly, whilst the 'B' formula must be used if we are looking at the entire Plan as a coherent system of items all geared to a single overall growth rate. I shall therefore make use of either formula as the occasion warrants.

A fourth problem stems from the inevitably partial character of our

¹ This is one reason obliging us to use as reference year for the 4th Plan 1961 (instead of 1959).

² A question is whether, in calculating our indices, we should use the 'true' values in the reference year or the sometimes 'untrue' values assumed by the planners. I have used the former.

investigation. The significance of sectoral or branch realisation-indices that relate solely to output (or consumption) and occasionally capacity is limited. For example, the index does not tell us whether the relevant sector was faced with a shortage of capacity (leading to 'expensive' imports¹) in the terminal year of the Plan, or whether it had a surplus (leading to sub-normal profits or losses). Even when we have (as for steel) the capacity as well as the output figure, and even if the 'A' realisation-index for both equals 100, we cannot be sure without supplementary evidence that the level of capacity was just right. Nor would the foreign trade figures be sufficient to complete the evidence. It is true that if domestic output is as forecast, a higher import (or lower export) surplus than forecast would imply (in the absence of an increase in stocks) that domestic consumption had increased more than predicted. But it would not tell us whether the failure of the growth in production to match that in consumption was evidence of a genuine shortage of capacity or of a relationship between domestic and foreign costs making imports relatively cheap and exports relatively unprofitable. This is only one of many possible illustrations of the need in some contexts to go beyond simply measuring the difference between the predicted and realised output to investigating the reasons for this difference.

A fifth and final point to be borne in mind is the very high degree of rounding applied to most of the figures for both forecasts and performance. This circumstance may happen to result in a realisation-index of 100 (or unity) and thereby suggest a false impression of the degree of accuracy of the prediction.

I turn now to the record for the individual Plans. Much of what is contained in my brief account will already be familiar to students of the extensive literature, but must be brought together here to provide the necessary points of reference for the discussion that follows.

2. The 1st Plan (1947 to 1952-53)²

Conceived at a time when national income accounting was still in its infancy, the 1st Plan did not include a specified overall growth rate among its objectives. As already remarked, it set 'imperative targets' for output or capacity in a limited number of basic sectors, and 'indicative targets' for some agricultural and other products. It also indicated figures for aggregate industrial and agricultural outputs. The targets or forecasts are shown

¹ See the quotation from Christopher Saunders above, pp. 62-3.

² This corresponds to the US financial year, adopted for purposes of the Marshall Plan.

against the realised results for some of the principal items in Table 1 of the Appendix to this Chapter. This Plan, it should be recalled, was altered *en route*. Thus, though the basic sectors to which imperative targets were assigned originally numbered six (coal, electricity, steel, cement, internal transport, and agricultural equipment), two others (oil and nitrogenous fertilizers) were added later. Moreover, the figures for the targets and forecasts were adjusted as the years passed and as the period of the Plan was extended, and the figures for the realised output in the reference years were also revised. Both sets of figures vary considerably, therefore, from one document to another. The target figures shown in the Table relate to the final version of the Plan, and the figures for past years (1929, 1938 and 1946) are the latest available. (The latter diverge markedly in some instances from the estimates made by the planners in both the early and the later versions of the Plan.¹)

The Table shows that by 1952 output was fairly close to target for coal and electricity, but well above for oil processed. These figures suggest that the performance of the power sector as a whole had been very good although M. Massé,² then on the staff of the *Electricité de France*, has pointed out that electricity would not have come so close to the target figure in 1952 without the retention in service of some very old equipment (thermal plants) with exceptionally high running and maintenance costs, and necessitating much larger coal imports than the Plan had foreseen. Accordingly, the achievement of the power sector under the 1st Plan was less impressive than is suggested by the output figures alone. In steel, the capacity target (also an 'imperative' one) was reached, but output came far below the target figure: in 1952 the 'A' realisation-index was 87 and in 1953 only 80. The steel industry was then faced with a substantial surplus of capacity which was not fully absorbed until 1955.³

The index of aggregate industrial production in both 1952 and 1953 was barely 10 per cent above the 1929 level compared with the Plan's forecast of 25 per cent.⁴ These were, however, years when the rate of growth in the economy as a whole slowed down in response to disinflationary measures. (Agriculture was also far behind schedule in 1952

¹ Divergences were most marked in the figures for tractors and fertilisers which were estimated at much lower levels than those later established by the INSEE.

² Pierre Massé, 1952.

³ Output in 1954 was still only 10.6 million tons but rose to 12.6 million tons in 1955.

⁴ 1929 was here taken as the reference year in preference to 1938, because of the abnormally low level of activity which had prevailed in the French economy throughout the 1930s.

but hit the mark in 1953.) Not until 1954-55, when the 2nd Plan was already under way, did the index of industrial production as a whole reach the 'target' of the 1st Plan. In the preceding years very low levels of output were registered in some of the 'non-basic' manufacturing industries producing consumers' goods, in the construction materials industry and in building.

Until about 1950, the planners emphasised rapid re-equipment (even to the extent of creating temporary excess capacity in some sectors) and the reconstitution of stocks at the cost of temporarily holding back the rise in the level of consumption and prolonging the housing shortage.¹ The resulting composition of economic activity was very definitely different from what would have been brought about by the spontaneous forces of the market. The Monnet Plan, in its early years at least, was quite distinct from purely 'indicative' planning in the sense in which we used this term in the previous Chapter.

3. The 2nd Plan (1954-57)

The next Plan ushered in a conception of French planning which differed from that underlying the Monnet Plan in several important respects. It was the first of the Plans to set a growth rate for gross domestic output and to attempt to establish a 'coherent' system of forecasts and targets capable of exercising the general co-ordinating role which was the key to the 'logic of the Plan' being evolved by M. Massé. This Plan marked the beginning, in M. Massé's words,² of the passage from a 'plan of priorities' to a 'plan of harmonised growth'. It gave French planning its 'second look', the 'new look' announced by M. Massé in 1964 (to which we shall refer later) being in fact its 'third look'.

The figures for the main aggregates, the principal sub-aggregates, and some important individual products and product-groups are shown in the Appendix, Tables 2A to 2D. The target for gross domestic output was this time over-reached. Industrial output grew much faster than predicted, and agricultural output less, mostly because of bad weather. One consequence was the failure to achieve the export surplus of agricultural produce which the Plan had expected to replace by 1957 the import surplus existing before 1952.

In the power sector, coal output and gas came below target, and

¹ In the three years 1950-52 the number of new housing units completed was only between 70,000 and 80,000 a year, and in 1953 still only 116,000.

² Pierre Massé, 1962 (3), p. 234.

electricity above. Oil-refining capacity also increased by more than predicted, but the volume of crude oil processed rose very much less; and there was a temporary surplus of capacity in the terminal year (1957) of the Plan due to the aftermath of the Suez crisis. Steel output approximately reached the target level this time, but the export surplus of steel grew by much less than forecast.¹ The output of chemicals came far above the predicted figure, and house-building also substantially exceeded the target. The 'non-basic' manufacturing industries also made rapid progress and their performance in the aggregate was more than equal to expectations. For textiles the 'A' realisation-index was between 115 and 120, while for the mechanical and electrical engineering sector taken as a whole it was 119. The expansion within this last sector was, however, much smaller in some branches and larger in others than the Plan had estimated: the 'A' realisation-index was as high as 147 for motor-vehicles but only about 75 for machine-tools (Table 2C).

The 'success' or 'over-success' of the 2nd Plan as judged by the overall growth rate was associated in the last two of the Plan's four years with the appearance of inflation and growing balance-of-payments difficulties (entailing large drawings on foreign exchange reserves and foreign credits) which provoked the financial crisis of 1958 and led to the Pinay-Rueff reforms of the end of that year.

4. The 3rd Plan (1958-61)

As a result of its heritage from the previous Plan, the 3rd Plan started in very unfavourable conditions. The annual growth rate in each of its first two years (1958 and 1959) fell far short of the average rate assumed by the Plan, which at the end of its second year was judged to be one year behind schedule. In 1960 it was officially laid aside and a new 'Interim Plan' put in its place for the last two years, with a target for gross domestic output in the terminal year perceptibly lower than the original one. There was an upward revision in the 3rd Plan's objectives for some of the sub-aggregates (notably exports and to a lesser extent imports, and consumption by the public administrations), and a downward revision of others (including fixed investments and private consumption).

The growth rate realised for gross domestic output came slightly higher than predicted by the Interim Plan and only a little lower than originally forecast by the 3rd Plan. On the other hand, aggregate fixed investment roughly equalled the initial target and not the revised (lower) one. (See

¹ *Text of 3rd Plan*, p. 144.

Table 3A.) The bad start which had led to the 3rd Plan's 'abandonment' was made up for by the remarkable recovery in investment and production which followed, after an interval of a year or so, the Pinay-Rueff stabilisation measures, and which the Interim Plan had somewhat under-estimated. Indeed, the 3rd Plan made hardly less accurate forecasts for the broad aggregates at least (with the important exception of foreign trade) than the Interim Plan with its shorter and presumably clearer perspective. Only the rhythm of the approach to the investment and output targets (very slow in the first two years and fast in the last two) had been 'misjudged'.

There are, however, two ways of looking at the Interim Plan. It makes a big difference whether we assume that this Plan was essentially no more than collective forecasting, or whether we take it as having been 'more actively' influential through exogenous instruments in stimulating the expansion of investment and output in 1960-61. If we take the first view, hindsight makes it appear that the planners acted precipitately in 'revising' the 3rd Plan early in 1960. On the other hand, the fact that so many of the events of 1958-61 (e.g. the Pinay-Rueff reforms and the impact of the establishment of the Common Market) either could not be or had not been foreseen by the 3rd Plan makes it difficult to maintain that the near attainment of the predicted rates of growth in investment and output was a triumph of the rational calculations of the planners. Chance must have played a bigger role than the planners' design. Those who take the second view attribute the recovery in 1960-61 of the ground lost in 1958-59 not so much to the effects of events essentially external to the Plans as to the measures for stimulating investment proposed in the Interim Plan. Some of the most important of these measures¹ were similar, however, to those which other countries might have taken in like circumstances in the name of 'anti-cyclical policy' rather than of 'central planning'.

Let us turn now to the record for individual sectors. The 'revised' targets of the Interim Plan for power had been kept equal to the 'initial' targets of the 3rd Plan, except for coal where a downward revision had been made. As the Power Commission had remarked, it had done its work for the Plan when there was a fear, shared by the experts in some of the

¹ The measures usually referred to in this connection are: the raising of controlled prices in certain sectors (facilitating self-finance), the introduction of the new 'accelerated' depreciation formula (with the same effect), the reduction in long-term interest rates, the more liberal granting of 'special equipment premia', and the introduction of the procedure of the quasi-contract (which was, however, of small importance). (Cf. Ministère des Finances (SEEF), 1961, p. 736.)

official international organisations, of a scarcity of power which it would be difficult to overcome before 1970 or 1975 (when the 'real nuclear revolution' might be expected to take place).¹ This view had already prevailed prior to the Suez crisis, and was strengthened by it. For France an extra cause for anxiety was her balance-of-payments difficulties to which no immediate or certain solution was in sight. The large foreign exchange costs of fuel imports underlined the case for developing domestic sources of power. Thus it was decided to plan for an increase in domestic coal production, as well as for a relatively fast exploitation of the recently discovered natural gas resources at Lacq during the critical period up to about 1970. The outlook soon began to change very rapidly, however: as early as the first year of the 3rd Plan (1958) the French coal industry was faced with excess capacity,² and by its final year there was an over-production of oil due to world capacity having developed faster than demand.

Commentators have spoken of the 'uncanny' accuracy of the forecasts made by the 3rd Plan for all the sources of power *other than coal*.³ The summary which the 4th Plan gave of the results of the 3rd showed all the other targets in the power sector as having been exactly reached, with the qualification that hydro-electric power had provided a larger proportion of the total electricity output, in a year of above-average water supply, than had been assumed for average weather conditions. The 4th Plan had, however, used very rough preliminary figures for the results of the 3rd, and the revised figures (Table 3B) show a rather less perfect coincidence between forecasts and performance: 'A' realisation-indices of 100.7 for total electricity output and 98.9 for oil processed. (The corresponding figure for gas is lacking owing to a change in the method of statistical presentation.) None the less the power forecasts made for the 3rd Plan still appear exceptionally good.

For steel the 3rd Plan had proposed that capacity be brought up to 18.5 million tons, allowing for an output in an 'average' year of from 17 to 17.5 million tons, and these figures were not revised by the Interim Plan. The capacity 'target' was reached, output came slightly above the upper end of the predicted range, and the export surplus of steel somewhat short of the estimated figure.⁴ Domestic steel consumption had thus grown faster

¹ *III^e Plan, Rapport général de la Commission de l'énergie*, 1957, especially pp. 432-3.

² The target for coal shown in Table 3B embodies a downward revision made in October 1958 when the Plan was already under way. (CEPREL, July 1964, p. 99.)

³ For example, C. Pratten, 1964.

⁴ *Rapport sur l'exécution du Plan en 1961 et 1962*, p. 146.

than predicted. Aluminium and chemicals came well above the substantially increased figures of the Interim Plan. The cement forecast, which the Interim Plan had raised only very slightly, was also surpassed along with the housing forecast. In the 'non-basic' manufacturing sector, on the other hand, aggregate output grew considerably less fast than predicted by the original 3rd Plan. In the sub-group textiles the 'A' realisation-index was only 88; in the sub-group 'mechanical and electrical engineering' it was 96.

Table 3C shows the figures for approximately the same branches of the engineering sector as were distinguished in the 2nd Plan. Within the group, the spread between the deviations of actual from predicted performance was again very wide, although less marked than under the 2nd Plan. The 'A' realisation-indices for the various branches ranged this time from 80 to 126. Among the branches where output was well below the 3rd Plan's forecast were machine-tools and motor-vehicles. This was the second time the machine-tools industry had lagged behind the Plan's forecasts and it provoked comments about the 'poor performance' of the industry. The motor-vehicle industry fell short of the original goal, even though this had been sharply raised by the Interim Plan. Under the 2nd Plan this industry had, as we have seen, made progress far exceeding expectations. The 3rd Plan forecast a perceptible slowing down in the industry's rate of expansion, but the Interim Plan raised the 'target' for 1961 because of the 'spectacular success' which the industry had obtained in 1959 in the export market. Indeed, despite the big increase in exports envisaged by the 3rd Plan, the figure forecast for 1961 had already been surpassed in 1959 and the Interim Plan assumed that the progression would continue during the next two years though at a slightly reduced pace. In the event, the export figure reached in 1961 was far below that for 1959, owing especially to a sharp drop in sales to North America. The period of the 3rd Plan saw a big cyclical swing in car production in France as in the United States and Britain. The terminal year of the 3rd Plan (1961) was thus a year of recession for the French motor industry. In the previous year (1960) the production index had been not far short of the original estimate, though still very much below the revised one.

Much more information is available for the 3rd Plan than for the 2nd concerning sub-divisions of the chemicals industry. For this industry as a whole the 'A' realisation-index reached 117, which masks wide variations between individual products or product-groups¹ as the following ranges of the 'A' indices indicate:

¹ Not shown in the Tables.

The Record of the Plans

Mineral-based (13 products or product-groups)	58 to 144
Organic (8 products or product-groups)	74 to 230
Plastics (3 products)	42 to 119
Synthetic rubber (2 products)	50 to 90
Miscellaneous (4 products*)	93 to 112
All (30 products or product-groups)	42 to 230

* Paints and varnishes, tyres, industrial rubber, and glass.

These figures are based on the forecasts made by the original 3rd plan. For most of the items the Interim Plan revised the forecasts, and succeeded in bringing the majority of them closer to the eventual levels of output.

In agriculture a major objective of the 3rd Plan had been to change the structure of output, and particularly to increase the production of beef. The 'A' realisation-index for this was only 89. (Table 3D.)

5. The 4th Plan (1962-65)

In the middle of its second year (1963), the 4th Plan appeared to be threatened, like its predecessor, with the need for a downward revision. Inflation had once again become a major problem, and in the autumn the government took further measures to those already taken in the spring to curb its advance. By late 1963 it appeared that the 'stabilisation plan' had for practical purposes replaced 'the Plan', and in the spring of 1964 it was officially announced that the target growth rate of the 4th Plan would probably not be reached as a result of the stabilisation measures. Once again, however, the planning authorities had been unduly influenced by short-term events. The overall growth rate calculated on the 1961 base in fact reached the target figure (of 5.5 per cent per annum), and calculated on the 1959 base it exceeded that rate.¹ This time total gross investment came higher than forecast, owing to investment in housing being much higher than predicted. Both imports and exports were higher than forecast, the former more so than the latter. (Table 4A.)

The planners did not succeed in repeating the remarkable forecasting feat of the 3rd Plan for the power sector. (Table 4B.) Indeed, the Commissariat's reports in recent years have repeatedly emphasised the difficulties of making accurate forecasts for this sector and especially for the individual forms of power. Shortly after the start of the 4th Plan, the forecasts had been revised, but it turned out that for total consumption of

¹ On the 1959 base the growth rate achieved was 5.8 per cent per year compared with a predicted rate of, again, 5.5 per cent. Reflected in this divergence is the underestimation (made also by the Interim Plan) of the rate of growth in output during the last two years (1960-61) of the 3rd Plan.

primary power, though not for individual forms of power, first thoughts had been best. Consequently, in reporting on the results of the Plan the Commissariat preferred to return to the initial estimates, although they had markedly over-estimated the consumption of both coal and gas, and under-estimated that of oil (as had the second thoughts, though to a slightly smaller extent). In 1963 the representatives of the oil industry (Comité professionnel du pétrole) had published revised targets for this branch that were very much higher than the original ones.¹

Steel was another branch forecast which appeared in the second year of the Plan to need revision. The Plan had expressed very optimistic hopes about the expanding market prospects for the French steel industry. It put the 1965 'target' capacity at 24.5 million tons per year (representing an increase of 33 per cent over the 1961 level) and estimated that output in 1965 would be between 22 and 24 million tons. The Steel Commission had arrived at these figures by using two methods of estimating the domestic needs for steel.² The 'global method' took the growth in gross domestic production (5.5 per cent a year for the six years from 1959 to 1965) assumed by the Plan, and applied to it what the Commission deemed a reasonable elasticity coefficient³ for the related growth in crude steel consumption. This method gave a figure of 19.2 million tons. The Commission emphasised, however, the *conditional* character of this forecast, given that it presupposed a development of gross domestic production between 1959 and 1965 at an average annual rate never so far observed over a period of six consecutive years. The second method was that of adding together the forecasts made by individual sectors of steel-users, which gave a figure of only 18.3 million tons. The Commission was not surprised that this figure was lower than that obtained by the 'global method' based on an exceptionally high growth rate, since each sector had 'a natural tendency to extrapolate the past'.⁴ Nevertheless it judged the estimate made by the steel-users to be on the low side, and finally adopted the range of 22 to 24 million tons, with the explanation that the lower figure (representing the lower estimate for domestic consumption raised

¹ They raised the figure for refining capacity from 54 to 63 million tons (i.e. by 16 per cent), and the figure for the amount of crude oil processed from 45.5 to 53.4 million tons. Refining capacity actually reached 70 million tons at the end of 1965.

² *IV^e Plan, Rapport général de la Commission de la sidérurgie.*

³ The Commission took the coefficient as 1.30 or somewhat lower than the 1.35 obtained from the observed correlation between steel consumption and gross domestic production for the ten years up to 1959. It justified the lower coefficient by the expectation of an especially rapid expansion of the sectors that are small steel-users and the continued tendency towards the substitution of aluminium and plastics for steel.

⁴ *Op. cit.*, p. 11.

The Record of the Plans

by 3.6 million tons to allow for the excess of exports over imports) might be supposed valid for 'medium-good business conditions', while the upper one (representing the higher figure for domestic consumption *plus* 4.8 million tons for the export surplus) could be considered possible in the case that 'the estimate [made by the steel-users] of sales on the domestic market turned out to be over-cautious, given the development hypotheses envisaged by the Plan', or that business conditions in 1965 were especially good.

In the event French crude steel output, which had risen uninterruptedly from 1956 to 1961, fell back a little in 1962 instead of rising further; and in 1963 the industry only just restored the 1961 position. France's experience in this sector was running parallel to that of the two other big Western European producers, West Germany (the largest) and Britain; all were feeling the effects of increased competition on world markets from expanding production in the new steel countries. Thus in 1963 the French industry already had substantial excess capacity, and its capacity target for 1965 was revised downwards by 2 million tons and its output forecast at 1.5 million tons less than the *lower* of the two figures originally adopted by the Plan. By the end of 1963 the government was examining ways of coming to the industry's aid and, as we have seen, later granted it a substantial amount of privileged finance. France also put strong pressure on the Coal and Steel Community to raise the duties on imports of foreign steel into the countries of the Common Market, threatening to act alone if the members did not act in concert. In January 1964, the duties were raised.¹

In the terminal year of the Plan, French steel output came short even of the revised forecast, chiefly owing to the low level of net exports. The figures for deliveries in the two years 1964 and 1965 make it appear that domestic consumption about equalled the revised forecast when allowance is made for the probable movement in stocks. It is worth noting, however, that domestic consumption fell short of the *lower* of the two figures originally forecast (in 1959), despite the fact that the annual growth rate (5.8 per cent between 1959 and 1965) exceeded the 5.5 per cent which the Steel Commission had used for making its forecast by the 'global method', and which it had been inclined to regard as too high. We may say that, in adopting a rather cautious attitude in 1959 regarding the expansion in demand for French steel up to 1965, the Commission, and the steel-users, had been right but for the wrong reasons.

Roughly the reverse of the situation in the steel industry developed

¹ The duties were raised from an average of 6-7 per cent to one of 9 per cent, except for Italy where the higher tariff was already in force.

during 1962-63 in the motor-vehicle industry. The 4th Plan had estimated output in 1965 at 1.7 million cars¹ compared with an output of less than 1.2 million in 1961 (and 1.3 million in 1960). Here the caution was on the side of the Commissariat. The producers had suggested a somewhat higher 1965 'target', namely 1.85 million, but the Commissariat thought that this figure should be reduced on the ground that it corresponded to export estimates which 'a concern for prudence' advised cutting.² This was one of the rare instances where a divergence persisted until the bitter end between the 'views of the working group' in the relevant Commission (that for Manufacturing Industries) 'and those of the officials responsible for making the synthesis'.³ It was decided to adopt two variants for the production forecast: a 'strong variant' supported by the Commission, and a 'weak variant' used by the Commissariat for the final synthesis of the Plan. For the principal category 'private cars' the variants were as follows:

Number of cars (thousands)

	<i>Domestic consumption</i>	<i>Exports</i>	<i>Imports</i>	<i>Output</i>
Strong variant	1,120	850	120	1,850
Weak variant (adopted by Plan)	1,120	750	170	1,700

By the end of 1963, only half-way through the Plan, the production index for the branch showed that the forecast for 1965 (the terminal year) had already been reached to the extent of 93 per cent ('A' index). So far domestic demand had grown much faster than foreseen. By 1964, however, the rhythm of development in this industry had once again abruptly changed. Output rose only slightly above the 1963 level, and in 1965 it was back at that level. Exports were smaller and imports larger than had been assumed even by the Commissariat; and the level of production forecast by the Plan (weak variant) was not in the end quite reached.

The mechanical and electrical engineering branches taken as a group came very near to reaching the predicted output, but the 'A' realisation-indices again varied widely between branches. As shown in Table 4C, the range was from 78 to 112, and the machine-tools branch failed for the third time in succession to grow as fast as predicted.

For chemicals in the aggregate the forecast was much more accurate ('A' index 99) than in previous Plans. As the following figures show the

¹ Included are private cars plus commercial vehicles of less than 4 metric tons in weight.

² *Text of 4th Plan*, p. 374.

³ *IV^e Plan, Rapport général de la Commission des industries de transformation*, p. 12.

The Record of the Plans

range of the 'A' indices for separate products or product groups was also less wide than previously:¹

Mineral-based (19 products or product-groups)	57 to 130
Organic (16 products)	25 to 116
Plastics (3 products)	71 to 96
Synthetic rubber (3 products)	46 to 114
Miscellaneous (5 products or product-groups)*	83 to 118
All (46 products or product-groups)	25 to 130

* Paints and varnishes, dyes, tyres, industrial rubber, and glass.

The 'A' indices for the most important agricultural products, with a distinction where relevant between the forecast and the target,² are shown in Table 4D. The chief features here are the failure, once again, of meat production and especially of beef to reach the predicted and desired level, and the growth of wheat production substantially beyond the predicted (but undesired) level.

6. The forecasts of price levels, foreign trade and the labour supply

So far I have been concerned mostly with the system of branch forecasts. I now turn to a brief consideration of some forecasts of a general character which are of interest to all the branches.

All the post-Monnet Plans have been explicitly anti-inflationary in tone. The 2nd Plan said that its preparation had been 'dominated by the major preoccupation of realising economic expansion within monetary stability'. The 3rd Plan spoke of the re-establishment of monetary stability (after the inflation of 1956-57) as a condition for the achievement of its aims. The 4th Plan referred to the damage done to the French economy in the past by inflation, and to the necessity of 'maintaining monetary stability', of avoiding 'excessive' rises in prices and wages, and of seeing that French prices did not rise relatively to those of other countries. All these Plans ran, sooner or later, into rising cost and price levels. During the last two years of the 2nd Plan, or from 1955 to 1957, consumer prices increased by 5 per cent and wholesale prices by 10. By 1961, the terminal year of the 3rd Plan, consumer prices had risen by a further 30 per cent, and by 1963 when the stabilisation plan was introduced (in September) by still another 10 per cent.³

Except for the Interim Plan, the most inaccurate forecasts among the

¹ The coverage and grouping is not, however, exactly the same as in the 3rd Plan.

² Above, pp. 21-22.

³ The calculations are based on the annual averages.

main aggregates in the national income accounts have been those relating to foreign trade. The 2nd, 3rd and 4th Plans all under-estimated the growth in both exports and imports, that is, in the importance of foreign trade to the French economy. The degree of under-estimation was each time larger for imports than for exports,¹ and this difference may be partly attributed to the Plans' failure to foresee the successive waves of domestic inflation. But even without this factor, the 'uncontrolled foreign element' is regarded by many French planners as one of the biggest obstacles to accurate forecasting at the level of the big aggregates.

A final factor calling for brief discussion is the difficulty of predicting the future size of the population and the size and composition of the labour force, or even of knowing what the figures are at the time when the Plans are drawn up unless a Census is repeated at very frequent intervals.² The 3rd Plan, for example, had to make do as we have seen with the May 1954 Census of Population figures and with estimates of what had happened subsequently. The figure predicted by this Plan for the total employed labour force in 1961 was shown to be perceptibly above the true figure by the Census taken in March 1962, shortly after the close of that Plan. The Census also revealed wide errors in the Plan's forecasts for broad sectors of employment. The Plan had greatly under-estimated the release of labour from agriculture and its absorption by the tertiary sector,³ as may be judged from the following comparison.⁴

Employed Labour Force (thousands)

	<i>Forecast 1961</i>	<i>Realised March 1962</i>
Agriculture	4,600	3,890
Industry	7,300	7,399
Tertiary	7,350	8,214
Total	19,250	19,503

The 4th Plan, which still lacked the 1962 Census figures, recognised that the employment level in 1961 would according to the latest available estimates be somewhat lower than had been forecast by the 3rd Plan, and

¹ In the 4th Plan, the Commissariat made its influence felt on the side of caution by writing into the global figures of the Plan a smaller increase in exports and a larger increase in imports than resulted from the estimates made by the Commissions.

² France intends to shorten the intervals. A new Census is being taken in 1968.

³ The increase between 1954 and 1962 in employment in the 'tertiary' sector was mostly under the heading 'administrations'.

⁴ Made by CEPREL, 1964, on the basis of the preliminary Census results.

that the latter had also under-estimated the number of persons released from agriculture to other occupations. It proceeded to base its own predictions (for 1965) on an assumed total employment level for 1961 that later proved to be still slightly too high, and on a figure for employment in agriculture that turned out to be very much too high. The figure of 4.1 million to which it thought employment in this sector would have declined in 1965 had already been passed in 1961. In effect, the release of labour from agriculture assumed to take place during the 4th Plan had already taken place before the Plan started. The size of the further exodus assumed for the 4th Plan seems, moreover, again to have been an under-estimate.¹

The 4th Plan also seriously under-estimated the growth in the total labour force, chiefly because it failed to predict the large influx of 'repatriates' from Algeria. It had reckoned with an increase of 660,000 in the labour force (including repatriates and foreign workers together estimated at 290,000 but presumed to consist almost entirely of foreign workers). In fact the influx of 'repatriates' and other immigrants in the four years 1962-65 added some 670,000 persons, and the release of men from military service was also larger than anticipated. A rough estimate puts the total increase in the labour force between 1961 and 1965 at 825,000. The larger than predicted addition from the sources just mentioned had been partly offset by an unforeseen decrease in the 'activity rate' of the population as a whole.²

It might have been expected that, if the forecasting in other directions was 'good', the higher than predicted increase in the labour force between 1961 and 1965 would have caused the growth rate achieved during this period to exceed that adopted in the Plan.³

7. Political elements in centralised forecasting

Two instances have been brought to public notice, both concerned with the labour force estimates, where the planners' forecasts have been deliberately distorted for political reasons. The first relates to the forecasts for employment in agriculture: CEPREL⁴ reports that in the case of the 2nd

¹ *Rapport sur l'exécution du Plan en 1965 et 1966*, Vol. II, pp. 29-30.

² *Ibid.*

³ Another feature of the labour picture, however, was the 'unplanned' reduction in the average length of the working year due to the extension of the practice of granting a fourth week of paid annual leave in French industry and trade. The fact that this movement towards shorter working hours, which was contrary to the recommendations of the Plan, was led by a nationalised undertaking (the Renault Motor Works) drew a good deal of unfavourable comment.

⁴ Centre d'étude de la prospection économique à moyen et long terme.

Plan resistance by farmers' organisations to a projection showing a big exodus of labour from agriculture affected the figure that was inserted in the Plan for agricultural employment; it adds that the same factor *might* have exerted a similar effect on the 3rd Plan had not an excessively low figure for the exodus been adopted owing to wrong estimates by the demographers.¹

The second instance concerns the repatriates from Algeria. As we have seen, the 4th Plan made hardly any allowance for these. M. Massé has said that the reason for this omission was not that he, for example, did not see the possibility of large-scale repatriations, but that 'it was impossible to build a Plan on such a disagreeable eventuality. The government might have been reproached for having precipitated the event by announcing it.'²

This attitude no doubt merits our understanding, as M. Massé has suggested, but we may still point out that the necessity of compromising in this and possibly other eventualities (such as an expected currency devaluation which would affect *inter alia* the foreign trade forecasts) conflicts with the notion of the Plan as a guide to, or creator of better information for, business. It prompts the thought that no information may be preferable to false information.

¹ CEPREL, December 1964, pp. 37-8.

² Pierre Massé, 1964 (5), p. 102.

Appendix to Chapter VII

Table 1. First Plan

	R ^a					P ^a	Realisation index A	
	1929	1938	1946	1952	1953	1952-53	1952	1953
Coal (million tons)	55.0	47.6	49.3	57.4	55.1	60	95.7	91.8
Electricity (milliard Kwh)	15.5	20.7	22.8	40.6	41.5	43	94.4	96.5
of which:								
Hydro	6.5	9.6	11.2	22.2	21.0	22.5	98.7	93.3
Thermal	9.0	11.1	11.6	18.4	20.5	20.5	89.8	100
Oil (million tons of crude treated)	0.2	6.9	2.8	21.5	22.6	18.7	115.0	120.9
Steel (million tons)	9.7	6.1	4.4	10.9	10.0	12.5 ^b	87.2	80.0
Cement (million tons)	4.3	3.8	3.4	8.6	8.7	8.5	101.2	102.4
Tractors (park) (thousands)	27	n.a.	60	178	212	200	89.0	106.0
Fertilisers (thousand tons nitrate)	160	225	186 ^c	275 ^d	—	300	91.7	
Index of industrial production (including building)	100	75	63	109	110 ^e	125	87.2	88.0
Index of agricultural production	100	102	78	105	113	113	92.9	100

^a In this and the following Tables, R represents the realised quantity and P the predicted quantity (whether target or forecast).

^b Steel capacity (as opposed to output) reached this predicted level.

^c Relates to 1946-47

^d Relates to 1952-53.

^e Reached 120 in 1954 and 129 in 1955.

Sources: *Deuxième Plan*, p. 14; *Rapport d'exécution du Plan*, 1952, p. 133; *Troisième Plan*, *Rapport de la Commission de l'énergie*; INSEE, *Annuaire statistiques* and *Annuaire statistique rétrospectif*, 1961.

Table 2. Second Plan

A. Main Aggregates and Sub-Aggregates

	Index 1952 = 100		Realisation indices	
	R 1957 (a)	P 1957 (a)	A	B
⊕ Gross domestic production	129	125	103.2	1.16
• Gross investment (incl. stocks)	141	128	110.2	1.46
• Private consumption	129	122	105.7	1.32
• Imports (non-franc area)	156 ^a	100	156.0	∞
• Exports (non-franc area)	172 ^a	141	122.0	1.76
Industrial production (excl. building)	146 ^b	125-130	116.8-112.3	1.84-1.53
Agricultural output	112 ^c	120	93.3	0.60

(a) First five items at 1954 prices, except for realised imports and exports.

^a Calculated from INSEE volume indices (excluding gold) on original base 1949.

^b INSEE index of 19 branches. The forecast made by the Plan covered some additional branches. The two figures are not therefore strictly comparable.

^c Original base: average for 1934-38.

B. Basic Industrial Sectors and Housing

	Quantities			Indices 1952 = 100		Realisation indices	
	1952	1957 R	1957 P	1957 R	1957 P	A	B
○ Coal (million tons)	57.4	59.1	61.0 ^a	104	106	96.9	0.67
○ Electricity (milliard Kwh)	40.6	57.4	55.0	141	135	104.4	1.17
of which:							
Hydro	22.2	24.8 ^b	29.2	110	130	84.9	0.33
Thermal	18.4	32.6	25.8	180	140	126.4	2.00
○ Gas (milliard cubic metres consumed)	2.6	3.6	3.8	138	146	94.7	0.83
Oil (million tons):							
Refining capacity	24.5	33.5	30.0	137	122	111.7	1.68
○ Volume of crude treated	21.5	25.0 ^c	27.0	116	126	92.6	0.62
○ Steel (million tons)	10.9	14.1	14.3	130	131	98.6	0.97
Chemicals	—	—	—	184 ^d	130 ^d	—	—
△ Housing (thousand units completed)	84	274	240	326	286	114.2	1.22

^a Capacity.

^b At the end of 1957, the amount producible in a year of average water supply was 31.6.

^c In 1956: 26.8

^d Not strictly comparable.

C. Manufacturing Industries

	Indices 1952 = 100		Realisation indices	
	1957 R	1957 P	A	B
Total all manufacturing industries	147	124	118.5	1.96
Sub-group 1: Mechanical and electrical engineering	157	130	120.8	1.90
of which:				
× Processing of non-ferrous metals	144	130	110.8	1.47
× First processing of steel	156	130	120.0	1.87
× Smelting	124	130	95.4	0.80
× Heavy and medium engineering	140	130	107.7	1.33
× Machine tools	109	140-150 ^a	77.9-72.7	0.22-0.18
× Agricultural machinery	225	165	136.4	1.92
× Railway rolling stock	126	120	105.0	1.30
× Motor-vehicles	176	120	146.7	3.80
× Motor-cycles	140	120	116.7	2.00
× Electrical construction	193	140	137.9	2.32
Sub-group 2: Textiles and others ^b				
× Textiles	132	110-115 ^a	120.0-114.8	3.20-2.13
× Clothing ^c	126	125-130 ^a	100.8-96.9	1.04-0.87
× Leather	116	115	100.9	1.07
× Wood ^c	132	113	117.9	2.46
× Paper	173	135	128.1	2.09

^a In the diagram on p. 102 the mean of the two figures has been taken.

^b Not all shown here.

^c Not included in the INSEE index for 19 branches.

D. Agricultural Products

	Quantities				Indices 1952 = 100			Realisation index
	1952	1956	1957 R	1957 P	1956	1957 R	1957 P	A
Wheat (million quintals)	84.2	56.8	110.8	95.0	67	132	113	116.6
Meat (million tons)	2,065	2,585	2,605	2,500	125	126	121	104.2
Milk (million hectolitres)	150	180	200	200	120	133	133	100
Sugar (thousand tons) ^a	898	1,262	1,415	1,500 ^b	141	158	167	94.3
Alcohol (thousand hectolitres)	4,047	2,564	2,330	2,000 ^b	63	58	49	116.5

^a Commercial years 1952-53, etc.

^b Regarded as maximum.

Sources: *Rapport annuel sur l'exécution du Plan*, 1958, pp. 6-7, 16, 190, 193; *Troisième Plan*; INSEE, *Annuaire statistique*, and *Annuaire rétrospectif*, 1961.

Comparison of Forecasts or Targets with Performance: 1

Table 3. Third Plan and Interim Plan

A. Main Aggregates and Sub-Aggregates

	<i>Indices 1956 = 100</i>			<i>Realisation indices</i>			
	<i>1961</i>	<i>1961 P</i>		<i>A</i>		<i>B</i>	
	<i>R</i>	<i>3rd Plan</i>	<i>Int. Plan</i>	<i>3rd Plan</i>	<i>Int. Plan</i>	<i>3rd Plan</i>	<i>Int. Plan</i>
⊙ Gross domestic production	124.9	127	123.3	98.3	101.3	0.92	1.07
• Gross fixed investment	128	128	126.5	100	101.2	1.00	1.06
• Formation of stocks	87	102	—	85.3	—	-6.5	—
• Private consumption	120	124	117.6	96.8	102.0	0.83	1.14
• Consumption by public administrations	111 ^a	112	117.2	99.1	93.9	0.92	0.64
• Imports	126	110	118.2	114.5	106.6	2.60	1.43
• Exports	160	135	160	118.5	100	1.71	1.00
Gross domestic production plus imports minus exports	120	124	n.a.	96.8	n.a.	0.83	n.a.
Industrial production (excl. building)	139 ^b	130-135	—	106.9-103	—	1.30-1.11	—
Agricultural output	116 ^c	120	—	96.7	—	0.80	—

^a Unrevised figure. INSEE gives 112 for public administrations plus financial institutions.

^b Index of 19 branches, original base 1952.

^c Original base: average for 1934-38.

B. Basic Industrial Sectors and Housing

	1956		1961		Indices 1956 = 100			Realisation indices		
					1961	1961 P		A		B
	R		3rd Plan	Int. Plan	R	3rd Plan	Int. Plan	3rd Plan	Int. Plan	3rd Plan
○ Coal (million tons)	57.4	55.3	62	56	96.3	108.0	97.6	89.2	98.8	-0.46
○ Electricity (million Kwh)	53.8	76.5	76	—	142.2	141.3	—	100.7	—	1.02
of which:										
Hydro	25.8	38.2 ^a	34 ^b	—	148.1	131.8	—	112.4	—	1.51
Thermal	28.0	38.3	42	—	136.8	150.0	—	91.2	—	0.74
Gas (million cubic metres consumed)										
Oil (million tons):										
Refining capacity ^c	31.1	43.6	43	—	140.2	138.3	—	101.4	—	1.05
Volume of crude treated	26.8	37.1	37.5 ^d	—	138.4	139.9	—	98.9	—	0.96
○ Steel (million tons):										
Production	13.4	17.6	17.0-17.5	—	131.3	127-131 ^e	—	103.5-100.6	—	1.16-1.01
Capacity	13.5	18.5	18.5	—	137.0	137.0	—	100.0	—	1.00
○ Aluminium (thousand tons)	150	279	230	260	186.0	153.3	173.3	121.3	107.3	1.61
○ Cement (million tons)	11.2	15.5	14.7	14.9	138.4	131.3	133.0	105.4	104.0	1.23
□ Chemicals	—	—	—	—	170	145	164	117.2	103.7	1.56
Housing (thousand units completed)	236	316	—	—	133.9	—	—	—	—	—
Δ	—	309 ^f	300 ^g	—	130.9 ^h	127.1 ⁱ	—	103.0 ^j	—	1.14 ^k

^a Water-supply was above average. ^b For year of average water-supply. ^c End-of-year figures.

^d From the *Rapport général de la Commission de l'énergie*. The Text of the Third Plan did not put a figure on this item.

^e In the diagram on p. 103 the mean of the two figures has been taken. ^f Annual average 1958-61.

Note: The consumption of primary power (after correction for weather but not for water-supply) in 1961 was 138 million tons coal-equivalent, compared with a forecast by the 3rd Plan of 140.4, giving an 'A' realisation-index of 98.3.

Comparison of Forecasts or Targets with Performance: 1

C. Manufacturing Industries

	<i>Indices 1956 = 100</i>			<i>Realisation indices</i>			
	<i>1961</i>	<i>1961 P</i>		<i>A</i>		<i>B</i>	
		<i>3rd Plan</i>	<i>Int. Plan</i>	<i>3rd Plan</i>	<i>Int. Plan</i>	<i>3rd Plan</i>	<i>Int. Plan</i>
Total all manufacturing industries	130	136	132	95.6	98.5	0.83	0.94
Sub-group 1: Mechanical and electrical engineering	136	142	—	95.8	—	0.86	—
of which:							
× Processing of non-ferrous metals	133	141	—	94.3	—	0.80	—
× First processing of steel	145	139	—	104.3	—	1.15	—
× Smelting	113	142	—	79.6	—	0.31	—
× Heavy and medium engineering	133	139	—	95.7	—	0.85	—
× Metallic construction	156	124	—	125.8	—	2.33	—
× Railway rolling stock							
× (non-electric)	99	90	—	110.0	—	0.10	—
× Machine-tools	136	150	—	90.7	—	0.72	—
× Agricultural machinery	121 ^a	141	—	85.8	—	0.51	—
× Metal-working	119	125	—	95.2	—	0.76	—
× Motor-vehicles, motor-cycles, and cycles	133 ^b	146	165	91.1	80.6	0.72	0.51
× Electrical construction	162	150	165	108.0	98.2	1.24	0.95
× Precision instruments, and optics	153	141	—	108.5	—	1.29	—
Sub-group 2: Textiles and others	129 ^c	128	120	—	—	—	—
of which:							
× Textiles	115	131	113	87.8	101.8	0.48	1.15
× Clothing ^d	114	129	113	88.4	100.9	0.48	1.08
× Leather	122	120	118	101.7	103.4	1.10	1.22
× Wood ^d	133	119	131	111.8	101.5	1.74	1.06
× Paper	146	133	137	109.8	106.6	1.39	1.24
× Printing	126	119	—	105.9	—	1.37	—
× Cleaning and dyeing ^d	122	141	130	86.5	93.8	0.54	0.73
× Miscellaneous	128	134	128	95.5	100.0	0.82	1.00

^a Too high because of out-of-date weighting system.

^b In 1960 was 144.

^c Unrevised figure.

^d Not included in INSEE index of 19 branches.

The Record of the Plans

D. Agricultural Products

	Quantities				Indices 1956 = 100			Realisation index
	1956	1960	1961 R	1961 P	1960	1961 R	1961 P	A
Wheat (million q.)	56.8	110.1	95.7	110	193.8	168.5	193.7	87.0
Barley (million q.)	64.1	57.2	54.1	50	89.2	84.4	78.0	108.2
Maize (million q.)	17.4	28.1	24.7	25	161.5	142.0	143.7	98.8
Beets (million q.)	108.8	190.2	132.4	130	174.8	121.7	119.5	101.8
Wine (million h.)	51.7	61.3	44.7	60	102.2	86.5	116.1	74.5
Meat ^a (thousand t.)	2,500	2,780	2,928	3,100	111.2	117.1	124	94.5
of which:								
Beef	955	1,100	1,224	1,300	115.2	128.2	136.1	94.2
Veal	360	385	402	450	106.9	111.7	125	89.3
Pork	1,075	1,160	1,167	1,200	107.9	108.6	111.6	97.3
Lamb	110	135	135	150	122.7	122.7	136.4	90.0
Milk (million h.)	190	214	231	222	112.6	121.6	116.8	104.1

^a Excludes horse meat.

Sources: *Troisième Plan*; *Quatrième Plan*; *Rapport annuel sur l'exécution du Plan en 1961 et 1962*, pp. 27, 275, 299, 300, 311; INSEE, *Annuaire statistiques* and *Annuaire rétrospectif*, 1961.

Table 4. Fourth Plan

A. Main Aggregates and Sub-Aggregates

	Index 1961 = 100		Realisation indices	
	1965 R	1965 P	A	B
⊙ Gross domestic production	124.1	124	100.1	1.00
• Gross fixed investment	136.6	130	105.1	1.22
of which:				
Productive	125	128	97.6	0.89
Housing	159.2	125.4	127.0	2.33
Administrations	151.5	150	101.0	1.03
• Consumption	124.6	122.5	101.7	1.09
of which:				
Households	123.7	122.5	101.0	1.05
Administrations	136.6	122	112.0	1.66
• Imports	151.1	123	122.8	2.22
• Exports (plus balance on services account) ^a	130.3	120	108.6	1.51

^a The realised excess of exports over imports (5.0 milliard F. at 1965 prices) was smaller than that forecast (8.0 milliard F. at 1961 prices), and the total resources at the disposal of the economy therefore larger.

Comparison of Forecasts or Targets with Performance: 1

B. Basic Industrial Sectors and Housing

	<i>Quantities</i>			<i>Indices 1961 = 100</i>		<i>Realisation indices</i>	
	<i>1961</i>	<i>1965 R</i>	<i>1965 P</i>	<i>1965 R</i>	<i>1965 P</i>	<i>A</i>	<i>B</i>
Primary power: consumption ^a (million t. coal-equivalent)	134.1	170.3	168 (160)	127.0	125.3 (119.3)	101.4 (106.5)	1.07 (1.40)
of which:							
○ Coal	70.7	69.0	82.3 (72.0)	97.6	116.4 (101.8)	83.8 (95.9)	-1.46 (-1.33)
○ Oil products	42.0	73.6	58.0 (61.0)	175.2	138.1 (145.2)	126.9 (120.7)	1.97 (1.66)
○ Gas	6.0	8.5	9.2 (8.5)	141.7	153.3 (141.7)	92.4 (100.0)	0.78 (1.00)
○ Hydraulic and nuclear ^b	15.4	19.2	18.4 (—)	124.7	119.5 (—)	104.4	1.27
Electricity consumption (million Kwh)	76.5	102.2	109.5	133.5	143.1	93.3	0.78
of which:							
Hydro	38.2	46.2	43.3	120.9	113.3	106.7	1.57
Thermal	38.3	54.1	63.4	141.3	165.5	85.4	0.63
Steel (million t.):							
○ Production	17.6	19.6 ^c	21.9– 24.0 (20.5) ^e	111.4	124.4– 136.4 ^d	89.5– 81.7	0.47– 0.31
Capacity	18.5	22.5	24.5 (22.5) ^e	121.6	132.4	91.8	0.67
○ Aluminium (thousand t.)	279	341	345	122.2	123.7	98.8	0.94
○ Cement (million t.)	15.5	22.2	18.5	143.2	119.4	119.9	2.23
Chemicals:							
Mineral-based	—	—	—	144.9	127.4	113.7	1.64
Organic ^f	—	—	—	150.4	162.3	92.7	0.84
Para-chemistry	—	—	—	129.0	135.6	95.1	0.81
□ All	—	—	—	144.4	145.9	99.0	0.97
△ Housing (thousand units completed)	315	412	350	130.8	111.1	117.7	2.77

^a The power forecasts were revised (to the figures shown in brackets) shortly after the start of the 4th Plan. The 'realised' power figures are provisional.

^b And a small amount of imported power.

^c 19.8 in 1964.

^d In the diagram on p. 104 the mean of the two figures has been taken.

^e Revision made in 1963.

^f Includes pharmaceuticals and explosives.

C. Manufacturing Industries

	<i>Indices 1961 = 100</i>		<i>Realisation indices</i>	
	<i>1965 R</i>	<i>1965 P</i>	<i>A</i>	<i>B</i>
Total all manufacturing industries	124.9	126.8	98.5	0.93
Sub-group 1: Mechanical and electrical engineering	127.6	129.9	98.2	0.92
of which:				
× First processing of non-ferrous metals	121.7	125.7	96.8	0.84
× First processing of steel	108.0	128.6	84.0	0.28
× Smelting	114.0	125.0	91.2	0.56
× Metal-working	126.0	125.0	100.8	1.04
× Metallic construction	119.8	120.2	99.7	0.98
× Industrial equipment	120.2	119.6	100.5	1.03
× Agricultural machinery	112.8	142.7	79.0	0.30
× Machine-tools	114.8	131.1	87.6	0.48
× Precision-instruments, optics	125.9	119.0	105.8	1.36
× Railway equipment	146.9	135.7	108.3	1.31
× Industrial electrical equipment	128.4	139.7	91.9	0.72
× Electrical materials	150.9	138.5	109.0	1.32
× Electronics	156.8	139.9	112.1	1.42
× Domestic equipment	121.7	156.2	77.9	0.39
× Motor vehicles	130.4	140.3	93.0	0.75
× Motor-cycles and cycles	101.6	108.2	93.9	0.20
Sub-group 2: Textiles and others	121.7	122.9	99.0	0.95
of which:				
× Textiles	109.0	114.6	95.1	0.62
× Clothing	153.6	117.9	130.3	2.99
× Leather	104.0	121.5	85.6	0.19
× Wood and furniture	126.8	128.8	98.4	0.93
× Paper	115.7	124.8	92.7	0.63
× Printing	108.5	117.0	92.7	0.50
× Cleaning and dyeing	120.8	134.9	89.5	0.60
× Miscellaneous	159.3	168.1	94.8	0.87

Comparison of Forecasts or Targets with Performance: I

D. Agricultural Products

	1965 <i>R</i>	1965 <i>P^a</i>	Realisation index <i>A^a</i>
Wheat (million q.)	143	126 (n.)	113.5 ^b
Barley (million q.)	73	75 (30)	97.3 (243.3)
Maize (million q.)	34	41 (18)	83.0 (188.8)
Industrial beets (million q.)	22 (sugar)	15.7	140.3 ^b
Wine (million h.)	66.7	57	117 ^b
Beef (thousand t.)	1,225	1,350	90.7
Veal (thousand t.)	411	430	95.5
Pork (thousand t.)	1,324	1,350	97.8
Lamb (thousand t.)	134	160	83.8
Milk (million h.)	259	275 (245)	94.2 (105.9)

^a The figures in brackets refer to targets where different from forecasts.

^b Output in 1964 was already above that forecast for 1965.

n = not determined.

Sources: *IV^e Plan; Rapport annuel sur l'exécution du Plan en 1962 et 1963; Projet de loi de finances pour 1967, annexe, Exécution du Plan en 1965 et 1966.*

VIII Comparison of Forecasts or Targets with Performance: 2

1. The coordination aspect

The 'logic of the Plan' in its 'old look' obliges us, in our examination of the record for the branch forecasts, to look not merely at the individual items taken singly as we did in the previous Chapter, but also at the structure of the items taken together. Even if the forecasts prove accurate for certain individual branches this is not sufficient to demonstrate that the Plan or 'global projection' may be credited with having 'coordinated' the investment and output decisions in the different branches into a consistent whole, of which the unifying element is the 'chosen' or predicted overall growth rate. The logic of the Plan implies also that if the growth rate and other items in the 'coherent' system of forecasts are set too low, so that performance surpasses them, the projection will fail to provide effective coordination just as much as if they are set too high, so that performance falls short of them. The planners' tendency to regard it as a 'bad' thing if the targets or forecasts are not reached and as a 'good' thing if they are exceeded, conflicts with their emphasis on the coordinating role of the Plan. A discrepancy in either direction between actual and predicted performance must be regarded as a failure of coordination.

Looking at the broad lines of the record of the three 'coordinating' Plans, we see that nearly correct output-forecasts for some branches might go together with a perceptibly wrong forecast of the overall growth rate (as under the 2nd Plan), and that contrariwise an approximately correct forecast of the growth rate (as under the 3rd and 4th Plans) might be associated with wrong output-forecasts for most individual branches. A closer study of the degree of correspondence between the structural relationships assumed by the Plan and those realised in practice may be made in terms of sub-sets of forecasts and realisations. For example, taking a sub-set centring on steel, we find that under the 2nd Plan a 'B' realisation-index of 0.97 for the growth in steel output went together with 'B' indices of 1.16 for the overall growth rate and 1.83 for the growth of output in the mechanical and electrical engineering sector, chief customer of the steel industry. Even allowing for the contribution of unplanned imports to the domestic consumption of steel in 1957, it seems probable

that if the forecasts for the overall growth rate and for the expansion of the engineering branch had not both been substantially exceeded, steel output would have fallen well below the predicted figure. The Plan had presumably under-estimated the extent to which steel was going to be replaced by non-ferrous metals and by plastics. Certainly in the 2nd Plan, the near accuracy of the steel forecast could not be attributed to the 'coherence' or internal consistency of the whole system of forecasts. Under the 3rd Plan, the correspondence between the relationships assumed by the projection and those emerging in practice was very much better than under the 2nd. Under the 4th, however, it was again very poor: with 'B' realisation-indices of 1.00 for gross domestic production, 0.92 for the engineering branch, 0.94 for aluminium, and well below 1.00 for plastics, that for steel output was only between 0.31 and 0.47.

The degree of correspondence between the predicted and the actual relationships for a very much larger set of items is depicted, for each of the three Plans, in the scatter diagrams (below, pp. 102-4). The set, which is as nearly as possible the same from Plan to Plan, comprises the items marked (with the same symbols) in the Tables (above, pp. 86-93). The vertical axis in the diagrams refers to the predicted and the horizontal axis to the realised percentage changes. Perfect 'coordination' by the Plan or perfectly accurate forecasting would of course require that all the points should fall on a 45° line drawn through the origin.

From the diagrams it appears that the 3rd and 4th Plans were better from this point of view than the 2nd which, it should be recalled, was only a first, rough attempt at a 'coordinating' Plan. The 3rd represented a big improvement on the 2nd from the technical point of view. It was, for example, the first to make use of a detailed input-output matrix, and the first to undergo a 'consistency test' of the strict kind which came to be regarded as such an important feature of French planning. Even in the case of the 3rd, however, the 'scatter' is still wide. Moreover, there does not appear to be any general improvement from the 3rd to the 4th Plans. For neither of these Plans can we conclude that the approximate attainment of the predicted growth rate was due to the 'choice' of this rate and to entrepreneurs conforming to the 'coherent' system of detailed branch forecasts of which it was the 'synthesis'. All we can say is that the constellation of quantities emerging from the forecasts and decisions made at the level of the firms, despite its being almost totally different from the constellation contained in the Plan, happened to add up to the same overall growth rate as assumed by the Plan. The effect of the Plan's wrong assumptions concerning some of the structural relationships underlying the

economic development of the period was largely cancelled out by the effect of its wrong assumptions in the opposite direction about other relationships.

Indeed one point which the experience of centralised forecasting in France demonstrates is the large amount of cancelling-out between errors in opposite directions that occurs as we move from the sub-branches to the branches, from these to the larger sub-aggregates, and from these again to the main aggregates. It was always supposed that there was a good deal of such cancelling, but the French experiment gives us a more precise indication of its magnitude and pervasiveness.¹

2. The effectiveness of the Plans

The record of the three 'coordinating' Plans suggests the following conclusions about their implementation by either exogenous or endogenous planning instruments, or both.

First, it is clear that under these Plans the authorities did not generally direct the economy towards a set of sectoral *targets*. This is not to deny that use was made of exogenous planning instruments, or that their use served to push certain activities forward faster than they would have gone in response to market forces, and correspondingly to hold others back. Nor is it to deny that in particular instances these instruments may have been used to the point of practically imposing the capacity or output² targets of the Plan. It is possible, though we have no proof, that the national monopolies in the power sector and also the steel industry (largely financed by the Treasury until 1958-59 and under fairly close government control thereafter) may have felt less free than the major part of private industry to deviate from the Plan's 'targets' in response to the forces of the market and have been less prompt in adjusting to conditions different from those predicted by the Plan. Such a possibility seems to be all that can be meant by those who claimed that the Plan was 'imperative',³ or had a

¹ The examples given in the previous Chapter, mostly relating to outputs, are only a small sample of those in the full record covering many other items, e.g. branch investments, employment levels, productivity levels, etc.

² Imposing the *capacity* target in conditions where actual market demand for the product runs ahead of that forecast means that realised output will tend automatically to equal the predicted output. This will not, of course, be true in the opposite conditions.

³ The idea of the Plan's being 'imperative' for the public sector (or for parts of it) derives from the Monnet Plan, which said that 'the adoption of the Plan by the government would be equivalent to an order to carry it out for the administrations, the public services and the nationalised enterprises' (*loc. cit.*, p. 102). This idea continued in much of the literature on the later phase of French planning (as in Jean Bédard, 1964, p. 758). See, however, below, pp. 156-7.

'certain imperative character', for the public sector of the economy and perhaps also for the basic industries.¹ Obviously, however, the planning authorities did not impose targets very strictly or very often. Even while they retained fairly powerful instruments for bringing private as well as public industry to heel (as during the 2nd Plan and the first half at least of the 3rd), they did not impose the targets, even in the basic sectors, when they were far out of line with the 'spontaneous' developments. They never sought to hold back a fast-developing industry, such as chemicals, in order to keep to the (low) targets of the Plan, nor attempt to enforce compliance with targets that were much too high, as with coal under the 3rd Plan or steel under the 4th. Moreover, even the supposedly 'imperative' character of the investment programmes in the traditional public sector (schools, motorways, telephones, etc.) was sharply contradicted by the facts.²

Secondly, M. Massé's theory, according to which the Plan coordinated economic activities by establishing a set of forecasts which held together 'if everybody played the game', does not appear to have worked in practice. Individual branches (including the nationalised power and transport sectors) had *large* recourse to those 'adjustments' or deviations from the Plan which the 'flexibility' of indicative planning left them free to make. These adjustments were too many and too big for us to be able to conclude that the coherent system of forecasts, or 'image of a coherent future',³ furnished by the Plan to economic operators was an effective guide to their actions. There is no evidence for the assumption that business men would at least approximately follow the Plan because they were confident that others would do likewise, so that it would be self-implementing. Admittedly, the word 'approximately' allows varying interpretations, and there is no clear consensus about how close the 'projection' has to come to reality for us to conclude that it is effective in the manner assumed by M. Massé's theory, or is in some sense 'useful' to industry. Generally speaking, the advocates are apt to apply more lenient standards than are the sceptics. What M. Massé had had in mind, however, may perhaps be deduced from the following quotation. 'Our Plan', he once said, 'is analogous in its estimates to the British Railways time-table, where it is specified that the times indicated represent the probable times at which the trains will arrive'.⁴ I assume that this analogy was not intended as an insinuation that British trains are particularly unpunctual.

¹ For example, Pierre Bauchet, *op. cit.*, p. 35.

² Cf. below, pp. 156-7, for an official statement on this point.

³ *V^e Plan (Options)*, 1964, p. 9.

⁴ Quoted by Raymond Boisdé, 1964, p. 164n.

'Indicative' planners, at least, have never claimed that business men would have done better to follow the Plans' 'predictions' than by deviating from them, or that in this way the economy would have come closer than it did to an optimal distribution of productive capacity between the various branches, with fewer and smaller surpluses and shortages.¹ On the contrary, they have freely conceded that the fault lay with the forecasting and was traceable to undeniable errors in the underlying hypotheses. They have acknowledged that there were wrong estimates concerning the domestic demands for 'final' goods (due to errors in the population estimates, in the assumed elasticity coefficients, in the assumptions about relative prices, etc.), concerning the technological coefficients governing inter-industry exchanges of 'intermediate' goods as expressed in the input-output table, concerning the competitiveness of domestic goods in relation to foreign goods, and so on.²

Those who regard French planning as more than 'indicative' may, of course, claim that the reason why some 'objectives' were not reached was not wrong forecasting by the planners, but either inadequate exogenous implementation of the Plan or 'poor performance' on the part of business men in the relevant sectors. Some of them have held that particular branches should have expanded capacity and output and hence 'saved' imports or expanded exports much more than they did, while other branches should have refrained from expanding too fast; and that the planning authorities ought to have taken action to keep them on the right course. The machine-tools industry is often cited as an example of an industry that was over-slow in its expansion, and the motor-vehicle industry as one which was periodically over-fast.

In its study of the 3rd Plan, CEPREL attempted to distinguish divergences between predicted and actual performance due to bad forecasting

¹ As mentioned in the previous Chapter, it is impossible in this regard to rely solely on the evidence provided by the realisation indices for output. An 'A' realisation-index below 100 for output in a branch may imply that if the branch had kept to the Plan it would have had a surplus of capacity larger than that (if any) which emerged. But in the absence of other evidence, the same figure may also mean that the branch actually had a shortage of capacity larger than that (if any) which it would have had by keeping to the Plan. In the first situation the branch had obviously done better by deviating from the Plan's forecasts than it would have done by following them; and in the second situation it had done worse. (The same holds, *mutatis mutandis*, for an 'A' realisation-index above 100.) In some instances, such as steel under the 4th Plan, we know from direct evidence concerning capacity conditions that the second situation certainly did not apply. But we can also be fairly sure that it did not generally apply in other instances either, since if it had the planners would doubtless have pointed it out.

² Cf. CEPREL, July 1964, especially pp. 53 ff. and 107 ff., for a detailed analysis of such errors with reference to the 3rd Plan.

from those due to inadequate instrumentation. The distinction is, however, a difficult one to apply. It would require a much clearer definition of the difference between forecasts and targets than the reference to 'priority' developments or 'urgent' tasks given in the 3rd Plan, or even than the more explicit but still vague distinction between forecasts and targets in the 'new look' on which the 5th Plan is based, and which will be treated in Chapter XV.

3. Conclusion

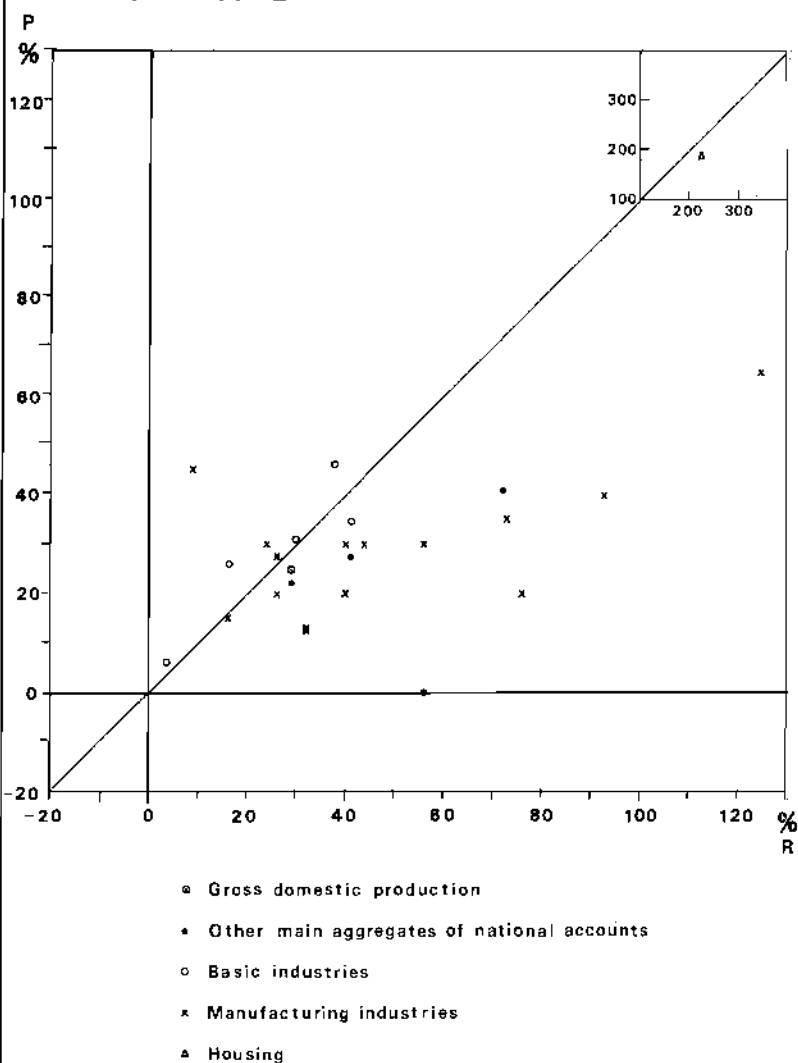
Whichever way we look at the Plans, whether we assume exogenous or endogenous instrumentation, or a mixture of both, there is nothing in the record of the 2nd, 3rd and 4th Plans to justify describing what was being done as central planning of the entire economy.

As regards the aspiration to 'indicative' planning, the forecasting had not so far achieved the necessary accuracy for there to be effective planning of this kind. Nor have 20 years of French planning shown signs of any continuous improvement in the degree of accuracy, as the planning authorities acknowledge. Indeed their experience with the 4th Plan inclined them to take the opposite view and to assume that the forecasting was becoming less accurate.¹ The 4th Plan did not perhaps look much worse than the 3rd, if we were considering the complete set of items taken as an undivided whole. But it did look distinctly worse for some of the more important sub-sets: for both power and steel the forecasting was definitely poorer under the 4th Plan than under the 3rd, and for steel it was also poorer than under the 2nd. The experience in these sectors was particularly significant, since they were the ones which advocates of French planning (outside as well as inside France) had most often cited when pointing to the cardinal importance of correct prediction of the overall growth rate as a factor enabling approximately accurate forecasts to be made of the demand for individual products. The disappointment of the 4th Plan, which was already clear in the Plan's second year, was one of the factors causing M. Massé to undertake, before the Plan came to an end, a revision of his 'logic of the Plan'.

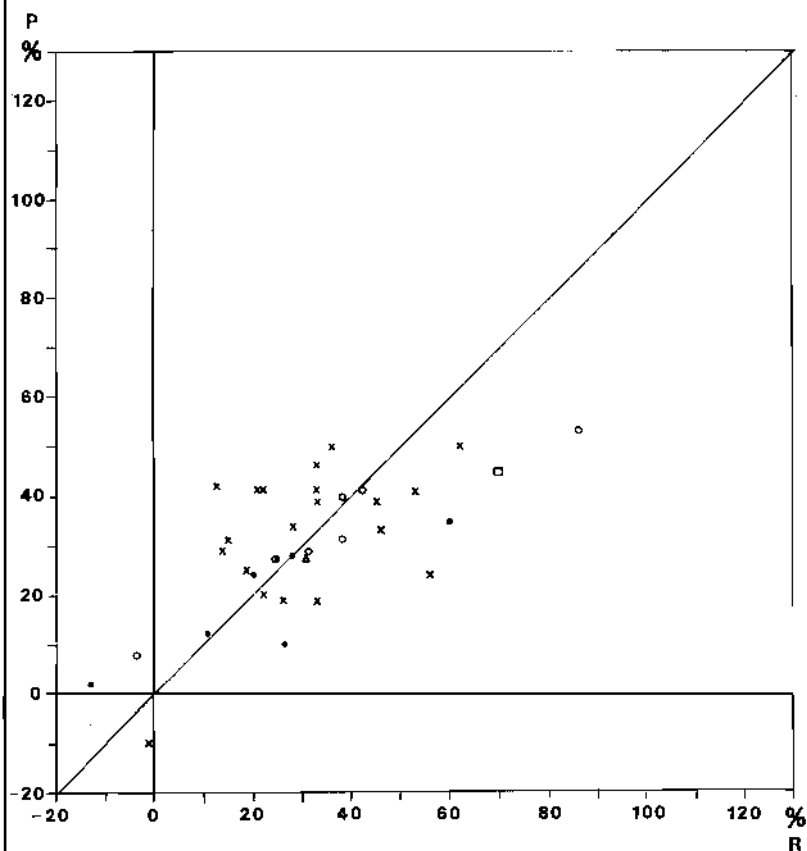
Before considering this revision, I shall examine more closely than I have done so far the theory of centralised or collective forecasting, or 'market research on a national scale'.

¹ Cf. M. Massé's view, quoted below, p. 153.

2nd PLAN: PREDICTED & REALIZED CHANGES

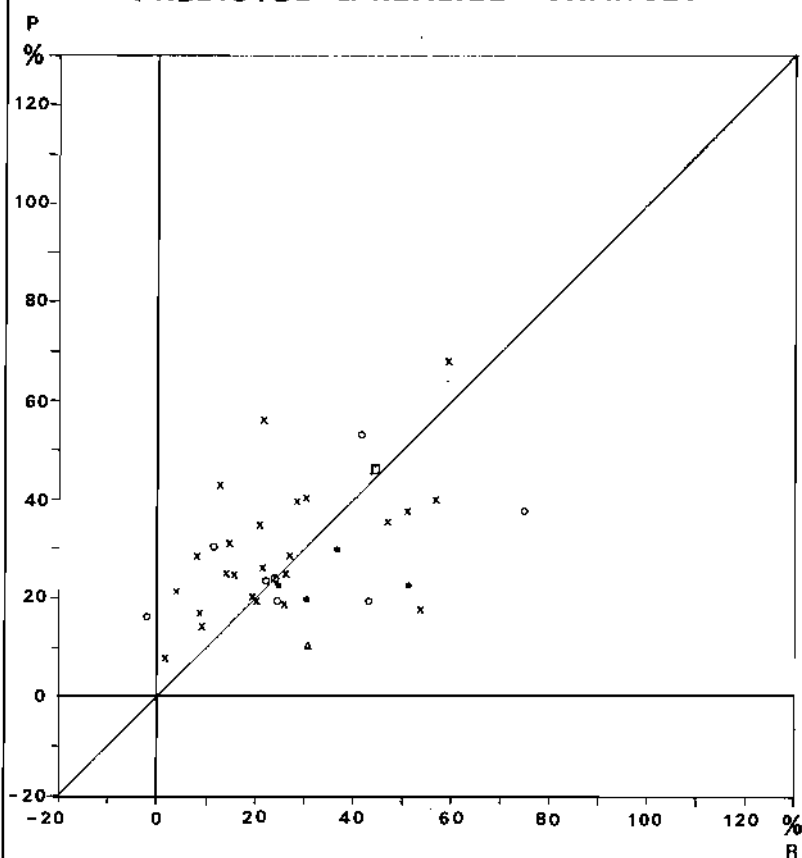


3rd PLAN: PREDICTED & REALIZED CHANGES



- Gross domestic production
- Other main aggregates of national accounts
- ◊ Basic industries
- Chemicals (aggregate)
- x Manufacturing industries
- ▲ Housing (not strictly comparable)

4th PLAN: PREDICTED & REALIZED CHANGES



- Gross domestic production
- Other main aggregates of national accounts
- Basic industries
- Chemicals (aggregate)
- x Manufacturing industries
- ▲ Housing

PART THREE

The Theory of Planning for the Market Economy: A Critique

IX The Rationale of Collective Forecasting

1. The responsibility of industry for the forecasts

If centralised or collective forecasting is inaccurate and yet influences business behaviour, it is rational to suppose that it may do harm instead of good by causing economic operators in the aggregate to make more 'wrong' investments than they would do if each relied on his individual forecast. French planners, however, generally exclude this possibility. They contend that the influence of collective forecasting, as carried out under the procedures of the 'concerted economy' at least, can only be in the right direction and never in the wrong. In support of this contention, they point to the increased 'transparency' of the economy due to the pooling of information and the exchanging of views, or 'reflection in common', about the future. They emphasise the beneficial effects of a 'common view' of future economic development free from the inconsistencies to which the separate forecasts of the individual operators or groups of operators would be subject. They also emphasise that under the 'concerted' procedure the Plan's forecasts are generally made or agreed to by the operators through their respective Commissions, so that it is *their* Plan. This holds, they say, not only for the branch forecasts made to 'fit' the 'chosen' growth rate, but also for the growth rate itself and for other large aggregates (productive investment, exports, etc.) since even these items, though initially 'suggested' by the authorities in the form of preliminary 'sketches' of economic development, are checked and may be corrected as a result of the forecasting done by the Commissions.

The contention is, then, that the Plan cannot mislead operators into following predictions less accurate than those they would have made by themselves independently, since the Plan's predictions are their own, 'improved' as a result of the increased 'transparency' and the 'coherence' ensured by the collective forecasting procedure. In other words, firms get out of the Plan what they (or their trade association) put into it, but with something added. The inference is that where the Plan's predictions have proved wide of the mark, the fault is with the forecasts made by the firms or sectors.¹

¹ For example, Yves Ullmo, 1965.

This conception of collective forecasting raises a number of questions. Precisely whose forecasts are they? Can they be said truly to 'represent' the views of the operators in the respective branches and sub-branches? How far-reaching, and how genuine, is the 'transparency' produced by the collective forecasting procedure?

2. The representativeness of the forecasts

The method of arriving at an initial branch forecast, which is of course subject to revision in order to obtain inter-branch coherence, varies from branch to branch, one factor affecting it being the degree of concentration of the branch. The task is obviously most straightforward in branches consisting of a single firm (such as the nationalised power sectors). Elsewhere, different firms will usually start with different views of the future market for their product, the necessary investment, and other items, and these different views must be reduced to a single view for the purpose of the Plan. The way this is done is a subject on which there is little published information,¹ and is moreover one of the aspects of French planning, or more broadly of the working of the concerted economy, which does not yet have a very clear profile. Several distinct patterns are nevertheless discernible.

In branches consisting of few firms, one procedure is for each firm separately to discuss its plans directly with the authorities who, with the knowledge of all the firms' plans (which they keep confidential), may persuade individual firms to make adjustments in order, say, to counteract a tendency towards over- or under-expansion in any of the product lines covered by the branch. Here the planning may be said to take place not merely at the level of the branch, as is most characteristic of French planning, but at that of the firm. This procedure is, however, used only in exceptional cases, of which the outstanding example is the steel industry. Another procedure that also applies to branches with few firms is for the several producers to agree among themselves on a single branch figure, which the authorities may try to persuade them to change if this appears necessary to achieve coherence. Yet another procedure is for the few producers not to 'commit' themselves, either singly or collectively, to any prediction but to leave the settling of the figure to the *rapporteur* of the Commission.²

¹ The minutes of the meetings of the Commissions are not, for fairly obvious reasons, made available to the public.

² This was reported (*Le Monde*, 10-11 October, 1965) to be the attitude taken by the motor manufacturers during the preparation of the 5th Plan. Possibly it reflected their scepticism, after the experience under the previous Plans, about the possibility of making medium-term predictions of the prospects for their industry.

In branches consisting of a large number of firms, one procedure is for the trade association of the branch to make a study of the probable development of consumption, to collect information (which is again kept confidential) from member-firms about their individual investment and output plans, to add these up, and to point out to the members any tendency towards a surplus or a shortage of capacity implied by the total. Generally speaking, however, consultation of all the firms in branches with a low degree of concentration can rarely be achieved. In some instances, the forecast of the size of the total market and of the necessary total investment probably represents some sort of composite view of a few, perhaps dominant, firms in the branch. Many firms may never be consulted and some may be unaware, and remain so to the end, of what the Plan has predicted for their branch. Indeed, one obstacle to full participation of all the firms in the preparation of the Plan is the relatively low degree of concentration still prevailing over a large part of French industry.

After each branch has arrived at a tentative single figure for each of the relevant items, there follows the task of achieving inter-branch 'coherence' within the framework of hypotheses concerning total growth. In principle, inconsistencies are eliminated 'by agreement' between the branches with the aid of the Commissariat, or by what was once described by a staff member of the Commissariat as a 'complicated process of discussion, pressure, negotiation and compromise'.¹ In some cases no agreement is reached so that, for example, the forecast by a consumer-branch of its purchases of a product may diverge perceptibly from the corresponding forecast of sales by the supplying-branch. In such cases, the Commissariat makes the adjustments necessary to achieve coherence on its own responsibility.² Even, however, where 'agreement' is reached, it is often not much more than a formality. The 'coherence' of the whole system of forecasts which is at last attained therefore appears in large part an artificial construction of limited significance except as an intellectual exercise.

We shall now look more closely at the quality of the forecasts made by the individual branches.

¹ François Le Guay, 1963, p. 50.

² The Text of the 4th Plan says (p. 361) that: 'the work of synthesising the Plan led quite often to a modification of the foreign trade forecasts, each branch having, very legitimately, the tendency to fix high export targets for itself, and to foresee low imports. In some cases this caused us to draw a distinction between the target inserted in the plan, and consistent with the general equilibrium forecasts for foreign trade, and the more ambitious target fixed for itself by the branch. It is, of course, the first which figures in the tables [of the Plan]'. The export figure for motor-vehicles was a case in point (above, p. 81).

3. The problem of intra-branch coherence

In only a few instances is there any guarantee that the total investment (or output) predicted for a branch will correspond to the sum of the shares which the individual firms in the branch predict for themselves. Even in branches where an adjustment between the two totals *appears* to occur, it may often be of no more than a formal character, with no consequence outside the meetings of the Commissions and their working groups. As a rule, there is no obligation for firms to alter their investment plans in response to warnings by the authorities about tendencies towards a surplus or shortage of capacity. Such warnings may or may not be heeded.¹ But even when they do exert an influence in causing some firms to adjust their plans in the direction recommended, there is still no assurance that the net effect for the branch as a whole will be as intended. A striking illustration of the kind of contradiction that may arise was reported by M. Leroy-Jay,² who relates that during the preparation of the 4th Plan it was discovered that in a certain branch (not named) the sum of the investment programmes of the firms indicated a future capacity 30 per cent above estimated market needs. When the President of the relevant Commission informed his colleagues of this fact, three different attitudes were adopted: some decided to cut their investment plans temporarily and wait for information (from their trade association) on subsequent developments; others cancelled their orders for new equipment; while the remainder speeded-up their orders in the hope of being the first to exploit the market. We are told that this case was exceptional and presumably the conduct of the last group was 'unsportsmanlike' as judged by the ethical standards appropriate to the concerted economy. But the point M. Leroy-Jay wanted to demonstrate was how the work of the Commissions provides the relevant trades with better information without curbing the freedom of any individual operator to react 'according to his temperament'.

Many partisans of French planning regard it as a serious flaw that there is generally only a very loose link, if any, between the forecast for the branch as a whole and the forecasts or plans of the firms in the branch (to say nothing of possible new entrants). The lack of co-ordination *within* the branch, or the failure to make the 'relative market shares' explicit, seems to these planners to make the 'coherence' of the system of branch

¹ This holds even though the large firms 'keep in touch' with the Commissariat during the planning period, informing it of investment plans, output and sales performance, etc.

² Patrice Leroy-Jay (Head of the General Secretariat of the Conseil national du Patronat français), 1963, p. 43.

forecasts look very fragile. The inference they draw is that the planning should be done in all branches at the level of the firm, through what would in fact if not in name be investment cartels, placed under state supervision in order both to prevent abuses (deliberate restriction of supply) and to ensure the enforcement of the necessary discipline. Already the planning procedures give a certain amount of encouragement, not always intentionally, to cartel-like behaviour in multi-firm branches. These may act as forecasting cartels (possibly adopting certain strategies to which I shall refer presently); and they may perhaps also act as investment cartels. In the view just mentioned, however, the investment cartel would need to be developed very much more generally and systematically than at present in order to achieve the necessary intra-branch 'coordination'. This view is in sharp contrast to that so far adopted by the French planning authorities, namely that planning at the level of the firm should not be generalised. The question ultimately at issue here is whether French-style planning, even if conceived as no more than collective forecasting, is compatible with a competitive free-enterprise economy, or whether it presupposes what was called in France in the 1930s 'corporative planning'.¹ The problem of the 'relative market shares' of the firms producing a given product is only one of several contexts we shall discuss in which this question arises.

4. The fiction of uniform and fixed forecasting horizons

Another source of artificiality in the branch figures is constituted by two time-dimensions of the collective forecasting procedure. One is the requirement that all branches should adopt a uniform forecasting horizon extending ahead as far as five or six years. This is a period over which many branches or sub-branches find it impossible to make predictions that are precise or reliable. Among the sub-branches into which 'non-basic' manufacturing industry is divided² for purposes of forecasting there are a good many for which the normal forecasting horizon is a year or less. For these, the figures inserted in the Plan are bound to be more or less arbitrary. Though 'agreed upon' as 'consistent with harmonious growth at the chosen rate', they can scarcely be 'representative' of the expectations of the trade as a whole, or of these expectations modified by discussions between the members of the trade and others; for there are no 'expectations' worthy of the name.

But even in branches where medium-term expectations are more substantial, the operators will normally expect to adjust their predictions and

¹ François Perroux, 1938.

² Under the 4th Plan, for example, they numbered 240.

investment plans continually as time passes. Their private plans will, that is to say, be rolling plans, and they will hazard a prediction today only with the possibility of a revision tomorrow in mind. Today's predictions, or 'intentions' to invest, for the period of the National Plan are often highly non-committal. It follows that unless the Plan is frequently revised the 'coherence' of the whole system of targets and forecasts achieved at the start is of purely ephemeral significance.

The planners see little prospect of getting away from the fiction of the uniform forecasting horizon. The non-uniformity of horizons, characteristic of the forecasting and planning done individually by the firms in a decentralised system, is something which programmers have found no way of imitating in their centralised-forecasting 'model'. The second fiction, that of the fixed horizon, could be overcome, in theory at least, by putting the centralised forecasting on a rolling basis. The considerations which have prevented the adoption of this solution so far will be mentioned later.¹

5. Elements of concealment and distortion

A further question is how genuine are the figures arrived at in those branches where medium-term forecasts can reasonably be made. In fact there is no guarantee that the branch figure ostensibly 'agreed' upon through discussion among the operators in the relevant Commission truly reflects either their unanimous view or even some sort of average of their different views. What is presented as the 'common view' is likely to be a distorted view.

One reason for this is related to the general problem of business secrecy. The French planning authorities have freely conceded that in a competitive economic system (which they explicitly aim at preserving) the degree of 'transparency' that can be achieved is limited. As M. Massé has put it, the Plan 'does not suppress business secrecy, but reduces the areas of shadow'.² Maximum, if not complete, 'frankness' may be expected in branches consisting of a single firm (i.e. the nationalised sectors), but for most multi-firm branches the pooling of information, beliefs and intentions is likely to be very incomplete indeed.

Another reason for doubting the seriousness of some of the figures is that, since the branch forecast 'agreed to' as being 'coherent' with the whole system of forecasts is in no way binding, some Commissions may be inclined to let themselves be 'persuaded' very easily. The forecasts which their members act on a short while afterwards may then be very different

¹ Below, footnote 3, p. 157.

² Pierre Massé, 1963 (2), p. 212.

from those inserted in the Plan, even if nothing has happened in the meantime to cause them to revise their judgements.

Yet another reason is that the very procedures of collective forecasting may lead to deliberate distortions of the figures. In some instances, a whole branch or its dominant group may intentionally advance either an under- or an over-estimate of the branch's growth prospects for reasons of 'strategy';¹ and two or more branches may even form coalitions for this purpose. Although the existence and nature of such strategies are not always easily discernible to other parties, various examples have been detected, or at least suspected. A consumer-branch may understate its anticipated purchases of a product in the hope of persuading the producer-branch to reduce the price. A producer-branch may 'agree' to what it believes to be an over-estimate of its rate of expansion in the hope of establishing or strengthening its claim to favours from the government for acting 'in conformity with the Plan'. Or a producer-branch may understate its expected output in the hope of convincing the government of the need for financial aid as a means of bringing its members (farmers, say) up to a particular income level proposed under the (indicative) 'incomes policy' of the Plan. (It was suspected that this consideration affected the forecast made for meat output by the Agricultural Commission for the 5th Plan.) Such strategies may seriously falsify the branch predictions made in the Commissions, and the Commissariat may have difficulty in seeing through them quickly or clearly enough to make the appropriate corrections. Moreover, it seems probable that with the passage of time the possibilities of these strategies may be more widely seen and exploited than hitherto. The potentialities of the forecasting cartel under French-style planning are still a relatively uncharted field.

6. Obstacles to 'transparency'

We must, therefore, conclude that the 'transparency' of business expectations achieved through collective forecasting is likely for various reasons to be highly imperfect. Some of the reasons, such as the difficulty of collecting sufficient information about these expectations at the micro-economic level, or the difficulty in some branches of making any medium-term predictions at all will, in the view of many planners, eventually be removed by the increased concentration of French industry and by improvements in

¹ Firms might of course adopt similar 'strategies' individually if they were asked to make a full public revelation of their individual plans or forecasts in the name of that complete suppression of business secrecy which some French planning enthusiasts regard as a necessary part of the 'spirit of concertation'.

forecasting techniques. This may be an optimistic view. Other reasons, such as the deliberate concealment or distortion of information, beliefs or intentions,¹ are even more difficult to overcome. The paradox of looking for 'predictive truth' is that it is impossible to define what 'honest' prediction of uncertain events is. The granting of branch-awards for 'good prediction' judged *ex post* would not be very different in its effects from enforcing sectoral targets. Some planners believe, however, that it ought to be possible to overcome this second kind of obstacle to full 'transparency' by developing a new code of business ethics based on that 'spirit of co-operation' which they regard as part of the philosophy of the concerted economy. Here again we come up against the question raised earlier of whether collective forecasting can be regarded as having a place in a competitive economic system, or whether it does not more properly belong to the system of corporativism. But before formulating an answer, we must inquire more deeply into the validity of the 'logic of the Plan'.

7. The aggregation problem

One of the tenets underlying the 'logic of the Plan' is the notion that planning or forecasting at the national level is neither more nor less than a logical extension of planning or forecasting at the level of the firm. M. Massé, looking at the rapid progress made since the war in the application of operations research to the problem of planning in the firm, regards it as natural that 'the same line of thought should be extended to the economy as a whole'.² The *Report on the Principal Options of the 5th Plan*³ speaks of the passage from market research in the ordinary sense to 'market research on the national scale' (or the 'global projection'⁴) as though it were something perfectly clear and unambiguous.

¹ As was noted above (pp. 84-5), 'non-transparency' in some areas may be deliberately created or encouraged by the authorities for political reasons.

² Pierre Massé, 1960, p. 9, 24-2. Another writer expresses the same thought by saying that 'just as planning is done in the micro-economy, which is the firm, so it should also be done in the macro-economy'. (Henri Migeon, preface to Jean Dayre, 1959.)

³ *5th Plan (Options)*, 1964, p. 41.

⁴ The use of the term 'global projection' in the recent official documents on French planning is not uniform. Sometimes the word 'global' evidently refers, as in the *Report on the Options*, to any projection made for the economy as a whole, including one that is detailed by branch and sub-branch, i.e., is highly 'disaggregated'. Sometimes, on the other hand, a 'global' (or 'semi-global') projection means one made only at a high (or relatively high) level of aggregation, and is distinguished from the 'detailed' projection necessary to constitute a 'generalised market study' of wide application. For this second usage, see INSEE, 1966, pp. 26 and 48.

How in fact do we get from one to the other? This question has usually been discussed in terms of which of two methods is preferable:

(a) that of 'disaggregation', which starts from assumed target rates for certain of the big aggregates and breaks these down by branch and sub-branch (and possibly by firm); or

(b) that of 'aggregation', which builds up the National Plan from the plans or forecasts of the individual firms in the various branches, so that the big aggregates, including the overall growth rate, are the end-point (instead of the starting-point) of the figuring process.

Critics of French planning have objected to the first method, which is used at one stage of the preparation of the Plan, on the ground that it turns things upside-down. The rational course, they say, is to pass from the micro- to the macro-economic level. French planners may reply to this criticism that they employ a combination of the two methods, using the second as a check on the first.

A third position which we must now consider is that neither aggregation nor disaggregation is possible; that there does not exist any unambiguous way of welding different views of an uncertain future into a common view; and that the plans of the individual firms cannot, in a competitive system and in the presence of uncertainty, ever add up to anything that can be called a 'National Plan'. The reasons for this lie in the nature of expectations under uncertainty and in the mechanics of the competitive system. It will be argued that these are two facets of the same phenomenon.

8. The problem of the inter-personal comparison of subjective probabilities

Many planners recognise that the treatment of uncertainty, or rather the failure to give it any formal treatment at all, is a serious weakness of the present French forecasting methods, even if they also confess to having no satisfactory remedy to propose. Thus all of the items in the projection appear as single-valued expectations, with no indication of differences in degree of likelihood or (except in rare cases) possible margins of error. Practical considerations seem at present to impose this simple method at all levels of the collective forecasting process, including that of the individual operator contributing to the branch forecast. No doubt more sophisticated methods would make the task unmanageable. Nevertheless, it is clear that if each operator is asked to submit his forecasts in the form of single-valued expectations, the figures submitted by different operators are unlikely to correspond to a uniform definition of what is meant by a

'prediction'. For example, one operator may regard the figure he advances as subject to a larger margin of error than another regards his, or his figure may be affected by his personal attitude towards risk. It is theoretically conceivable that each operator might be asked to formalise his beliefs about future prospects in terms of a 'subjective' probability distribution, or of certain specified parameters of such a distribution (say, the mean and the standard deviation), from which all elements extraneous to those beliefs (such as his attitude towards risk) were excluded. Even such an elaborate procedure would, however, solve only a small part of the problem.

The adoption by all the operators of a common formula of this type for expressing their individual views about the future would still leave unresolved the biggest difficulty of all—that of combining their many views into a single view. The 'subjective' probabilities with which we are here concerned give rise to an aggregation problem of a kind not encountered in the case of *a priori* probabilities, nor in that of 'objective' probabilities based on observed statistical frequencies, nor, again, in that of 'subjective' probabilities estimated by one and the same person. With the aid of probability calculus, it is possible to combine 'subjective' probability distributions relating to different events when those distributions have been conceived by a single mind.¹ An individual entrepreneur may, for instance, combine such distributions for revenues and costs respectively in order to obtain a distribution for profits.² But there is no such simple method of combining the probabilities attached to the same event (or different events) by different minds. Allowance would need to be made for the fact that some of the operators have, or believe that they have, or are believed by others to have, better foresight or judgement than their fellows. And though various ways of doing this may suggest themselves, none offers a satisfactory solution.

We may suppose, for example, that the planners draw up the 'common view of the future' for a branch by assigning equal weights to all the operators' predictions, on the grounds that for the group as a whole there will be a rough averaging out between good and poor judgements. But if this is known to be the procedure, the operator who believes his judgement

¹ With the aid of the assumption of a 'single mind' it would also, in principle, be possible in a general equilibrium model of the Walrasian type to make explicit allowance for uncertainty by attaching subjective probabilities (or probability distributions), drawn up by the 'single mind', to all of the exogenous variables, parameters, etc., and to arrive at solutions for the 'unknowns', with subjective probabilities (or probability distributions) likewise attached to them. The extent of the offsetting between prediction errors at each of many levels of aggregation would be among the factors requiring (mostly 'subjective') probabilistic treatment by the 'single mind'.

² F. A. and V. C. Lutz, 1951, Chapter XV.

to be better than average will follow his own prediction instead of the average prediction, thus immediately falsifying the 'common view'. Indeed, the conditions which appear necessary to reach a 'common view' of the branch's future are: first, that all the operators hold a common view as to which of them has the best judgement and are therefore willing to make his view of the future their own; and secondly, that all of them believe that this operator is giving them a true and complete account of his view. The first condition may be difficult to fulfil unless 'objective' indices of all the individual operators' capacities for prediction are available, which will rarely be the case.¹ The second condition cannot be fulfilled in an economic system that is to any degree competitive because if all the operators follow the honest prediction of the operator who has the best judgement, this operator will lose an important advantage in competing with his rivals. We are back at the point mentioned earlier that it cannot be expected that the predictions tabled by individual operators for purposes of collective forecasting will in competitive conditions be wholly frank. The collection of information and prediction are themselves competitive activities; and the right of individual operators to exploit their particular advantages or talents in this domain cannot be suppressed without striking at the roots of free enterprise and risk-taking.

9. The fiction of the 'common view of the future'

Both the incommensurability of the beliefs of different operators and the lack of perfect communication of those beliefs compel us to conclude that under conditions of uncertainty and in a competitive system it will be impossible to reach a *genuine* common view of the future or to draw up a valid representation of the expectations of a plurality of decision-makers considered as an aggregate. Since a multi-firm branch in a competitive system cannot properly be assimilated to a single economic agent or decision-taker, collective forecasting means either:

- (a) *pretending* that such assimilation is possible and drawing up a *fictitious* common view for each branch; or
- (b) organising the economy in such a way that each branch does act as a

¹ An attempt might be made to calculate 'good-management' indices for the various firms on the basis of their past performance and on the assumption that one property of good management is success in securing its own continuity by appointing good people to replace those who retire. There are, however, obvious limitations here, such as the lack in the case of the newer firms of a long enough past record and the impossibility, even when the record is long, of eliminating the part played by luck.

single agent, as indeed it would under generalised cartelisation or 'corporate planning'.

The problem encountered in trying to pass from forecasts by firms to forecasts for the whole branch confronts us again at the level of the higher aggregates. Under conditions of uncertainty, the forecasts made by the various operators in a decentralised system do not, in the natural order of things, fit into a single consistent system of either inter-branch relationships or final aggregates. For normally they will not all be based on a single or unique set of expectations concerning the various higher-order items which they take into account, but on a plurality of different (even if partly overlapping) sets. The single operator by himself will generally count on a degree of compensation taking place between his own prediction errors regarding different items (such as sales of his product to a number of consumer-branches, or sales at home and sales abroad). His forecasts alone will thus fit into more than one set, or partial set, of higher-order forecasts. The same is true *a fortiori* of the forecasts made by the many different operators in the same or different branches.¹ Again, it is not possible to add all these differing sets up to form a common view of the future, nor to identify a particular set as representing the objectively 'best estimate'.

It is not therefore surprising that it proves so difficult to remove 'inconsistencies' between the various forecasts in 'market research on a national scale'. Such inconsistencies are the natural consequence of the existence of uncertainty. Any method of eliminating them is bound to be largely arbitrary, as is the single set of forecasts which is the outcome. That set is only one of many equally 'consistent' sets that could have been produced on the basis of the same 'information'. Alternatively, it represents the set predicted by a 'single mind' external to the world of economic operators, that is, the planning authority.

10. Conclusion

The argument of this Chapter may be summarised as follows.

Granted that even in a decentralised market economy 'we are all planners' in the sense that individuals, firms and public authorities must all make decisions for the future on the basis of the best estimates

¹ It is clear, for example, that there is nothing in the 'data' obtained from the individual branches or sub-branches which indicates what allowance should be made for offsets between the prediction errors of those branches in passing to still higher levels of aggregation. Only the intervention of a 'single mind' permits the making of such offsets and the arrival at a single figure for each of the higher-order aggregates. Cf. footnote 1, p. 116.

they can make about future conditions, it does not follow that, by assembling these individual estimates (or plans) and 'correcting' them for inconsistencies, we can construct a 'best estimate' for the whole economy or a 'global projection' which may properly be called a 'national plan'. The claim to be able to do so is vitiated by the fallacy of composition. Nor, starting the other way round, can we break down the 'global objective' or overall growth rate of a 'national plan' into 'the implications for particular industries'.¹ In an economy which is truly decentralised at the decision-making level, there is no unequivocal way of translating micro-economic forecasts into macro-economic forecasts or *vice versa*; and no bridge between the plans of individual operators and a plan for the nation.²

If a central forecasting service attempts to 'harmonise' the many differing views of the economic future which are bound to exist in the presence of uncertainty, the 'coherent system' of forecasts or 'global projection' which results must necessarily be highly artificial. Indeed, were the object to present *as true a picture as possible* of business expectations in a competitive free-enterprise system, it would be appropriate *not* to make any of those 'adjustments' which the central forecasting service makes in order to obtain what can only be a false 'consistency'.

It would be another matter, of course, if the figures were meant to be those of a 'master plan' to be imposed from a single decision-centre. And it would be another thing, also, if all the items were predictable with perfect accuracy. What this would in turn imply will be examined in Chapter XII.

Meanwhile, two conclusions emerge concerning the significance of collective forecasting under uncertainty and in a competitive system. The first is that the theory of the 'coordinating' function of collective forecasting in a market economy rests on extremely shaky foundations. The second is that there is no clear and unambiguous way of defining the collective forecasts in terms of the forecasts made by individual operators, and that the former cannot therefore be said to be purely and simply an 'improved version' of the latter.

¹ Above, p. 63.

² Below, p. 161.

X Centralised versus Decentralised Forecasting

1. The decentralist view

In our examination of the French forecasting experience, one feature that emerged most conspicuously was the substantial amount of offsetting between errors of over- and under-estimation in the passage from lower to higher levels of aggregation. Such offsetting occurred at practically every level of the summing process for which we have a record. At work everywhere was a kind of 'law of large numbers' which, since it is not very precisely definable, I shall call the 'unstrict' law to distinguish it from the strict 'classical' one. The difference may be described by saying that, whereas the strict law refers to an indefinitely large number of like and independent events converging on an exact numerical result, the unstrict law relates to events that may be unlike, not perfectly independent, not indefinitely large (and perhaps quite small) in number, and not averaging out to a value that can be stated in advance with precision. It is worth remarking that the role played by this 'law', in allowing the central forecasting service to reach a fairly high degree of predictive accuracy for the larger aggregates, received till recently comparatively little attention in the documents on French planning.¹

We do not have a record for one level of aggregation which is especially significant for the present Chapter. We lack information, that is, concerning the forecasts that were made and followed by different operators in one and the same branch for the future demand (and other) conditions in that branch. The fact that offsets between prediction errors occur also at this level is, however, familiar to the business world. Well known also is the fact, mentioned in the preceding Chapter but for which we again have no record, that for one and the same operator offsets occur between the errors relating to different products within his total field of operations, between those relating to different factors (e.g. the overall growth rate, the elasticity coefficient, etc.) influencing the demand for any single product, and so on. Acknowledging that the individual decision-maker can and does count on such offsets occurring means, of course, acknowledging also that it is perfectly proper for those higher-order predictions which are most

¹ It was mentioned by the Ministère des Finances (SEEF), 1962. For a later reference (by M. Massé), see below, p. 159.

important for the success of his business to be 'right for the wrong reasons'. (An illustration was given earlier about the prediction of the demand for steel under the 4th Plan.¹)

The fact that when there are many predictions, made either by the same operator about different events or by different operators about the same event (or different ones), compensation occurs between prediction errors of opposite sign and of different magnitude forms the basis of a theory of forecasting, and of the coordination of investment decisions, which is entirely different from that underlying M. Massé's 'logic of the Plan'. This theory holds that, assuming that uncertainty cannot be eliminated even if it may be reduced, centralisation of economic prediction will make the total risk of error due to that uncertainty not smaller but larger than under decentralisation. It regards centralised forecasting, provided the latter is effective in exerting an influence on entrepreneurial decisions, not as what M. Massé calls the 'anti-hazard',² but its reverse. In recent years, this theory has been advanced most categorically by government officials, economists and, not least, by business men in West Germany,³ and is now often referred to as the 'German view'.⁴ It is as such that it was described in the first explicit recognition given in official French-planning circles (in 1964) to the existence of two contrasting theories on the subject of forecasting.⁵

This 'decentralist' theory of forecasting is, however, of much older and broader origin. In fact, it constitutes the 'missing link', for which French planners believed they had to forge a substitute, in the classical-liberal theory of the way the market economy works in the absence of any deliberate *ex ante* coordination of the forecasts and plans of individual operators. The late Professor Sir Dennis Robertson referred to this theory during the discussion of central economic planning, or 'national programming', in

¹ Above, p. 80. ² See title of M. Massé's 1965 book.

³ For example, Rolf Gocht (a government official), 1963; Hans Ilau, 1963; and the views of several industrialists in *List-Gesellschaft*, 1964. Wilhelm Lehman, from the electrical engineering branch, put the point as follows: 'We see, at least for our industry, a greater danger in the uniform behaviour, suggested at least by the State, of a whole industry than in the plurality of errors of many entrepreneurs, errors which, however, have a chance—and experience shows it to be more than a chance—of cancelling each other out' (*loc. cit.*, p. 130). Hans-Joachim Burchard, from the oil sector, put it in similar terms (*loc. cit.*, p. 122). The same view has not lacked exponents in France: see, for example, the writings of Professor Daniel Villey.

⁴ It is not intended to imply that there are in West Germany no sympathisers with M. Massé's ideas concerning the beneficial effect of *ex ante* coordination of investments by centralised forecasting. Cf., for example, Herbert Giersch, *List-Gesellschaft*, 1964, p. 70.

⁵ See the remark in the *Report on the Options* mentioned below, pp. 161–2.

Britain in 1947. He said that one of the guiding principles of the liberal philosophy was the *dispersal* of decision-making power, which was not the same thing as mere delegation of that power. To illustrate the importance of this distinction, he drew the following analogy:

If an army commander gives general orders to a divisional commander, he at the same time delegates to the latter the duty of giving more detailed orders to *his* subordinates; and it is universally agreed that it will not usually make for efficiency if the army commander then butts in to see exactly what those orders are and how they are being carried out. But there is nothing in this to alter the fact that if the army commander's plan is wrong, the whole army comes to grief.

He went on to say that:

The dispersal of economic judgement commended by the liberal philosophy meant something much more than this [delegation]: it was not merely a device for promoting administrative efficiency, but a recipe for securing that all the eggs should not be in the same basket—that in this highly uncertain world the fortunes of a whole trade, or a whole area, should not depend on the foresight and the judgement of a single centre of decision.¹

An essential difference between the liberal philosophy and the philosophy of French planning is that, whereas the former assumes that decentralised forecasting is an integral part of the decentralisation of economic decision-making, the latter supposes that the forecasting function can and should be centralised whilst other features of decentralisation (freedom of enterprise and initiative) are retained.

2. The liberal-classical view of 'coordination'

We must now look more closely at the theory on which the argument for decentralised forecasting is based. We must make clear what it does not claim, as well as what it does. The theory does not imply that it is a matter of indifference what forecasts for the various items the individual operators work to, or that they may simply act at random. It assumes that each operator will be striving in the interests of his own business success to make the best estimate he can.² But it holds that, so long as uncertainty exists, it is preferable that the group of operators should work to a range of such best estimates rather than all working to one (alleged to be the best-of-all) made by a central forecasting service.

The 'liberal' theory does not claim that the decentralisation of forecast-

¹ D. H. Robertson, 1947 (pp. 45 and 51-2 in 1952 volume).

² This does not, of course, exclude that a perfectly random (non-rational) 'estimate' may sometimes turn out to be the lucky one.

ing will lead to the total averaging out of prediction errors so as to leave no residual, either in individual branches taken singly, or even for groups of branches taken in the aggregate; nor does it deny that the errors may in some instances be cumulative. It does not assert either that decentralised forecasting guarantees the complete avoidance in all branches of shortages or surpluses of capacity; nor that the forecasts made by 'the Plan' may not sometimes turn out to be correct or nearly so for a number of items; nor even that taken in their entirety they may not occasionally be a more efficient 'coordinator' than the multiplicity of private forecasts. For it allows that the laws of chance will sometimes work in the planners' favour. The theory says only that *as a general rule* decentralisation will lead to smaller errors for most items and give better adjustment of supply to demand for most of them than will centralisation. Or, to put the same thing in another way, it holds that, though centralised forecasting may display perfect *ex ante* coordination between all the supplies and demands while decentralised forecasting does not provide for any such coordination, the *ex post* coordination will yet turn out to be better *generally speaking* under the latter than under the former. This is the argument by which the *lacuna* which French planners see in the classical-liberal theory of the market economy is filled.

In defence of their particular brand of centralised forecasting, French planners might plead that, since under the procedures of the concerted economy such forecasting is done, as M. Massé has emphasised, 'not by a few experts but by a large number of people drawing their information from many different sources',¹ the danger the 'liberal philosophy' sees in centralisation is avoided. Pointing out that the procedure is one of pooling all the different people's forecasts, rather than of substituting one individual view for the many, they might maintain that what they were in effect doing was to offset the different prediction errors against one another *ex ante* instead of waiting for this process to work itself out *ex post*. If the analysis in the preceding Chapter is correct, however, it is impossible to summate different people's forecasts into something that may be called *ex ante* a 'best estimate', and it is therefore also impossible to cancel out the errors *ex ante*: the cancelling out can only reveal itself *ex post*.

3. The appropriate degree of concentration

It is also necessary to avoid misunderstanding of what the argument for decentralised forecasting implies about the desirable degree of

¹ Pierre Massé, 1963 (1), p. 52.

concentration of industry. Advocating decentralisation in forecasting is not, of course, equivalent to arguing that the ideal situation would be one of *atomistic* decentralisation (or competition) on the ground that multiplying the number of separate and independent forecasts as much as possible allows the 'unstrict' law of large numbers to work to maximum effect. Beyond a certain point this advantage would obviously be counter-balanced by two disadvantages. The first would be the reduction in size of the operating unit below what was optimum from a technical (cost) standpoint. And the second would be the expansion in the number of people used in the capacity of entrepreneurs, reaching down to people with poor foresight and judgement. Similarly, it is admitted by the decentralist view that cases may present themselves where mergers or take-overs are desirable; for though these reduce the number of decision-making centres, they may yet give a net advantage on balance (i.e. better technical organisation and optimum utilisation of units of entrepreneurship possessing exceptional foresight and judgement, against the entrusting of more decisions to a single judgement). Especially for sectors affected by rapid technological change, it is admitted also that the individual firm may have a legitimate interest in largeness as a way of securing some measure of product (and process) diversification, by virtue of which it may to some extent insure itself against the penalties of errors of foresight or judgement on single products (or processes).¹

Nevertheless, supporters of the decentralist view on forecasting will usually be more wary than supporters of the centralist view of assuming that increased industrial concentration (with the accompanying danger of the exercise of monopoly power) is on balance necessary or desirable. They have one less reason for supposing that it is likely to be.² While

¹ This kind of compensation between the prediction errors of *one and the same* decision-maker regarding different events needs to be sharply distinguished from compensation between the prediction errors of *different* decision-makers regarding the same event. The first, while it serves as a risk-reducer for the individual operator concerned, does not perform the same function as the second from the point of view of consumers. This is at once clear if we imagine the first being pushed to the limit of the organisation of all production within a single 'firm'—a situation equivalent to that of a centrally-directed economy. The sort of cancelling-out of errors for 'society as a whole' which here took place, because the one-and-only 'firm' made high profits on the goods of which it had produced too few, and losses on those of which it had produced too many, would be of a purely book-keeping significance and would say nothing about the success of the economic system in catering to the (imperfectly foreseeable) wants of consumers.

² They will also be less apt to presume that 'poor performance', or 'failure', of individual firms is imputable to excessive smallness, instead of to errors of judgement, which might have had even more serious consequences had the same decision-maker been in control of a larger unit.

many of them may hesitate to propose state intervention to stop further concentration spontaneously undertaken by private groups, almost all of them would doubt the wisdom of the state deliberately encouraging such a movement by the offer of financial or other inducements.

The partisans of centralised forecasting explicitly assume that one of the benefits of a high degree of industrial concentration is the reduction in the number of decision-making centres to which it leads; and they maintain that by this means some countries have achieved a fairly good, even if imperfect, substitute for French planning.¹

4. International 'coordination'

Advocates of French planning have spoken of the improved effectiveness which such planning would have in reducing uncertainty were it conducted on an international scale. Thus extended, the collective forecasting would have the apparent advantage, according to its own logic, of bringing together the 'views of the future' of larger numbers of people, drawing their information from more numerous and diverse sources. We should notice, however, that all the problems of collective forecasting on a national scale raised in Chapter IX would be present in heightened degree were such forecasting done on an international scale. The practical difficulties of assembling all the relevant views would be immensely increased; the difficulties and dangers of using the procedures of the concerted economy would be enhanced; the 'adding-up' problem and the inevitably arbitrary methods of solving it would be still more serious; and the 'common' and 'consistent' view eventually arrived at would be even more artificial.

It is a corollary of the decentralist argument that much more harm would be done if the economies of a number of countries were all geared to a single set of collective forecasts made, say, under the auspices of an international organisation, than if each country's economy was individually geared to its own. International indicative planning, always assuming that it was effective (i.e. that economy operators took notice of its forecasts), would be more dangerous than effective national indicative planning, even if the latter were generalised.² For so long as a plurality of independent national forecasting services existed, there would remain

¹ *5th Plan (Options)*, 1964, pp. 43-4.

² This is not to deny that for certain products, for which the plants are inevitably large and few in number the world over, individual firms may find an advantage in having organisations which gather information about the probable level of total demand, and about alternative sources of supply, over as broad as possible an international area. (Below, p. 147.)

scope on a minor scale for the same kind of cancellation of errors as happens on a major scale under totally decentralised forecasting. For example, if for product-A some countries' national forecasting services estimated the international demand too high, others might estimate it too low, while for product-B the situation might be the reverse; and the mistakes would then tend to be offset by exports of product-A from one group of countries to the other in exchange for imports of product-B. Under effective international indicative planning even this kind of compensation would be excluded.

Moreover, it is not clear what the advocates of an international extension of French planning mean, *if* they are thinking only in terms of purely indicative planning (rather than of the exogenous instrumentation of the Plan), by saying that such an extension would lead to a more substantial reduction of uncertainty. What some of them have in mind is perhaps nothing more than that the 'unstrict' law of large numbers works the better the larger are the numbers; or, in other words, that the degree of predictive accuracy will be the higher the higher is the level of aggregation. But if this is all that is meant, it does not follow that the forecast made for any given branch will be correspondingly more helpful to the individual operator (French or other) in that branch. For the single operator who wants to estimate his share in the more reliable prediction for the total international output must then predict the contribution coming from a larger number of rival producers than he did when trying to calculate his share of the less reliable prediction of total national output. In other words, the problem mentioned in Chapter IX of making the relative shares explicit, the solution to which is presumably to be found only in exogenous instrumentation of the Plan, looms larger than before. We shall deal more fully with this problem in the next Chapter.

XI The Problem of Market Shares

1. A 'missing link' in collective forecasting?

Chapter IX referred to two possible grounds for questioning the validity of the concept of 'non-interventionist' planning or of 'a Plan for the market economy'. One was what I judged to be the impossibility, in the presence of uncertainty and competition, of reaching a genuine common view of future market (and other) prospects in the various branches, such as would be necessary for any real consistency of the whole system of branch forecasts. The second was the failure of the collective forecasting procedure to render explicit the relative market shares of the firms in each branch. This latter problem, which was only briefly touched upon in that earlier Chapter, must now be examined in more detail, and I shall for the present abstract from the first by assuming that a common view *is* reached about the size of the total market in each branch.

As we have seen, the problem of market shares is one on which French planners are themselves divided. For M. Massé one of the maxims of French planning is that it should not generally go below the level of the branch to that of the firm because 'it is in the passage from the branch to the firm that freedom, flexibility and risk come into play'.¹ He evidently does not believe that the failure of the collective forecasting procedure to make the relative shares of the individual firms explicit jeopardises the coherence of the system of branch forecasts. His argument here seems to be that the shares which the individual producers separately and independently predict for themselves will come near to adding up to the right total because, if some producers *over*-estimate the total supply forthcoming from rival producers in the branch, others will *under*-estimate it, and the errors will largely cancel out (in accordance with the 'unstrict' law of large numbers). As he once put it: 'We know that the god who has put the balls into the urn has a preference for the branches.' On this view, the function of collective forecasting is explicitly confined to reducing only one of the two elements of uncertainty for the individual operator, that concerning the size of the total market and not that concerning his share in that market. The other view is that full 'coherence' of the system of

¹ Pierre Massé, 1965, p. 52.

forecasts requires the establishment of *intra*-branch consistency, without which *inter*-branch consistency is non-existent, or in other words that a 'common view' must be reached about the relative shares as well as about the size of the total market in any branch. This is equivalent to saying that it is impossible to conceive of any kind of overall central planning, 'indicative' or other, which takes place exclusively at the level of the branch, without reaching down (possibly through a branch organisation) to the level of the firm.

The point that branch forecasts are of no help to individual firms in making their investment decisions unless combined either with investment cartels (i.e. a corporative organisation of the economy) or with the imposition of targets by the state, and that one or the other of these two systems is logically implied by French planning, has been strongly pressed in West Germany, where it has been presented as a reason for opposing such planning.¹

Essentially the same problem has been raised (not explicitly in connection with French planning) by Dr G. B. Richardson, in a study of the informational requirements for rational investment decisions,² from which the author concludes that in a competitive system the entrepreneur who is contemplating investment in a given branch will in some circumstances be unable to put any figure at all on the output likely to be forthcoming from rival producers in that branch (and hence on his own share of the market), and that it will then be necessary deliberately to plan the market shares under either cartel or state auspices.³

2. An over-simplified model

If we ignore a problem that will be taken up in the next section, it can be argued that the reason why the central forecasting service does not and cannot at present make the 'relative market shares' explicit is that the 'model' of economic development used as a basis for collective forecasting is not sufficiently sophisticated.⁴ Ideally, the planners would need a model that conformed to the principle of simultaneous determination of all the

¹ For example, Rolf Gocht, 1963; Constantin Boden, *List Gesellschaft*, 1964, p. 77; and Gerhard Tholl, 1965, p. 236.

² G. B. Richardson, 1960.

³ In a later publication (1966, p. 879), Richardson expressed his surprise that French planning 'emphasises the necessity of coordinating investment plans between industries while apparently admitting the absence of coordination between the plans of firms belonging to one and the same industry'.

⁴ Above, p. 14.

variables, as this is represented in the classical theory or in 'general equilibrium analysis' of the Walrasian type, but with an added complication of a very serious character. It would not be sufficient to base the model (in the Walrasian manner) on the assumption that a single market situation, that of perfect competition, prevailed throughout the system. 'Indicative' planning does not aim at introducing an 'ideally' competitive market situation everywhere, such as only deliberately interventionist planning could pretend to do. The model would, therefore, have to represent the particular market situation (polypoly, oligopoly, monopolistic competition, etc.) which was thought to exist in each individual branch, and the manner in which the individual producers in the branch were expected to react to that situation. The system of mathematical equations defining this model, if it could be constructed, would have to be extremely complex.

Suppose, however, for argument's sake, that it was analytically possible to write down such a system of equations and that it was possible also both to reach common and consistent views about all the values or 'data' (on consumers' preferences, factor supplies, technology, and market forms, etc.) to be inserted in the system and to solve the system numerically (with the aid of an electronic computer). Let us further suppose (abstracting from the problem treated in the next section) that the system gave determinate solutions everywhere. In these circumstances each producer (or potential producer) in any branch would be able to 'read off' his expected relative (and absolute) share of the market for that branch. The 'logic of the Plan' would thus appear to be saved. Coordination *ex ante* of the investment and output plans of all the firms in all the branches would come about spontaneously, or because the requirements of 'informational planning' were fully met. 'Ideally', also, the collective forecasting procedure would not alter the market situation nor the related behavioural patterns (or 'strategies') of the producers in any branch, but would merely take account of them. In reality, it would certainly produce changes in this respect and even lead to new forms (such as were mentioned in Chapter IX) of collusion between producers. Thus, even in the circumstances here postulated, it would imply 'interference' with competitive mechanisms.

In any event, there is no present prospect of being able to set up a general model sufficiently detailed to embrace individual decision-takers in the manner contemplated above. (This problem is separate from the ambiguities which lurk behind the conception of a 'common view' about all the relevant future circumstances and from which we continue to

abstract.) Practical considerations alone impose the necessity of dealing with groups of firms (like groups of consumers) as aggregates, rather than with firms individually. Hence to construct the general equilibrium model we have to adopt one of two simplifying assumptions: either that each branch plans itself as a unit or as though it were a single firm, or that strictly perfect competition prevails in every branch.¹ Neither of these situations even approximately corresponds to that facing the central forecasting service in reality. Only the first might be deliberately created by generalised cartelisation, but it implies 'corporative planning'. The second, which has usually been assumed in general equilibrium analysis in the past, leads us to the problem, that of a special kind of 'uncertainty', which we have provisionally ignored.

3. Indeterminacy on the supply side

It has often been pointed out that the hypothesis of generalised 'perfect competition' defined in a very strict sense leaves indeterminate precisely this element of the division of output among firms, and that, so long as the decision-makers are assumed to be the individual heads of firms, indeterminacy of their outputs means indeterminacy also of the outputs of the branches. This strict definition assumes that one condition for perfectly competitive markets is that in any given line of production all the entrepreneurs, including an indefinite number of possible new entrants, should have identical (either horizontal² or u-shaped) unit cost curves, or else that, if some have higher u-shaped curves than others, because they are of unequal capacity, this differentiation in capacity should not be such that each entrepreneur has 'different degrees of comparative advantage in different lines of production'.³ These are the circumstances (sometimes

¹ A third (equally unreal) simplifying assumption sometimes adopted is that it is possible to identify for each industry a 'representative' firm which can be 'repeated' an appropriate number of times to indicate the conditions of equilibrium between demand and supply for that industry.

² The assumption sometimes made that the unit cost curves of the individual firms are horizontal (reflecting constant returns to scale), as well as identical, leaves the optimum size of the firms undetermined. We cannot, of course, in our present context justify making this or any other of the assumptions mentioned on the ground of its convenience in allowing us to 'talk about the outputs of various commodities without worrying about the allocation of output among firms', or on the ground that 'If all firms in an industry have the same production coefficients, the allocation of output among firms is indeterminate but unimportant'. (The quotations, cited in a similar connection by G. B. Richardson, are from Dorfman, Samuelson and Solow, 1958, p. 348 and 348n.)

³ The phrase quoted is from G. B. Richardson, 1960, p. 20.

referred to as 'perfect mobility' of the entrepreneurial factor) which Richardson has in mind when he says that, even though all the entrepreneurs in a perfectly competitive system had definite and, as he assumes, uniform expectations¹ (or what we have been calling a 'common view') about consumers' preferences, factor supplies and technology, no entrepreneur contemplating investment (or re-investment) in any line, in response to an apparent profit-opportunity there, would be able to make a 'reasonably reliable' estimate of the output likely to be forthcoming from other entrepreneurs investing in the same line, the possible limits perhaps extending from close to nothing at one extreme to an indefinitely large amount at the other.

The (unlimited) indeterminacy here supposed to be associated with perfect competition is, we should remark, very much more serious than the (limited) indeterminacy usually assumed to be a feature of oligopoly.² It gives rise, as regards the relative market shares, to a different 'uncertainty' from that with which we have been dealing so far in our discussion of forecasting, and which allows a producer to estimate within 'tolerable limits' the size of the total market (and such other items as factor costs and technological conditions). We should notice, however, that this (unlimited) indeterminacy is imputable not to the assumption of generalised 'perfect competition' as such, but to that of 'perfect mobility' of the entrepreneurial factor between branches, so that when this latter assumption is valid the indeterminacy will affect all branches independently of whether they are able, given the size of the total market in relation to the technically optimum size of firm, to 'accommodate' large numbers of firms, as required for perfect competition, or only small numbers. Furthermore the assumption of 'perfect mobility' of the entrepreneurial factor is bound up with that of a 'common view' among entrepreneurs about the future.

¹ For simplicity we may again assume that uniformity implies that the expectations are single-valued and are regarded as equivalent to certainty. The alternative assumption that uncertainty is explicitly allowed for by attaching 'subjective' probabilities to the values would neither alter the argument in any essential respect nor make less ambiguous the conception of 'uniformity' so long as the 'subjective' probabilities were not all estimated by a single mind. Cf. above, p. 116 and footnote.

² There is no general agreement on the question, which cannot be examined in detail here, of whether the indeterminacy is, as Richardson for example holds, greater when there is a large number of competitors (or the closer the market approaches the 'ideal' of perfect competition) than when there is only a small number (oligopoly), or whether the exact opposite is true. The possibility of two conflicting answers to this question must be counted among the paradoxes to which the concept of perfect competition gives rise, and as being due in this instance to differing ways of defining the conditions which need to be fulfilled for competition to be 'perfect'. Cf. footnote 2, p. 132.

In a world where the entrepreneurs do *not* all share the same view of the future, the individual entrepreneur *will* regard himself as having 'different degrees of comparative advantage in different lines of production'. The consequent 'imperfect mobility' of the entrepreneurial factor constitutes one of the most important of those 'frictions' which, as Richardson says,¹ prevent the strictly perfect competition of pure theory but at the same time allow the kind of competition that exists in the real world to work.² It gets rid of the kind of generalised and unlimited indeterminacy by which the competitive system may otherwise seem to be pervaded. But it signifies the negation of the key assumption, that of the 'common view', upon which collective forecasting depends for its 'coherence' and upon which depends also the possibility of constructing any (unique) general equilibrium model for the economy such as was envisaged in section 2 of this Chapter.

Our conclusion is that *if* we assume that the central forecasting service is successful in persuading all the operators (existing and potential) in the various branches to adopt a 'common view' about the probable sizes of the future total markets for those branches (and about other factors affecting their future), we must also assume that the operators will be impelled to share the markets out in advance; and that this will hold whether a branch can 'accommodate' a large number of producers or only a small one (or tends, that is, to be polypolistic or oligopolistic). No matter how sophisticated a 'model' it might use, therefore, collective forecasting could never be made effective by the exclusively 'informational' means postulated by pure 'indicative' planning (and the basis of its presumed self-implementing character), but only by generalised cartelisation with its implication of the enforcement of targets. It follows that, of the two opinions on the problem of relative shares described in section 1 of this Chapter, the valid one is that according to which a 'common view' among producers about the size of the total market must be accompanied by a 'common view' about their relative shares in that market, rather than M. Massé's opinion that the first need not, and should not, entail the second.

It may be argued that the problem of indeterminacy, which we analysed above, and which requires for its solution the deliberate planning of the market shares, is avoided under the present French forecasting methods because, as M. Massé has said,³ these methods do not entail a full pooling of information and beliefs concerning the future among the existing (and

¹ Richardson, however, refers (*op. cit.*) mostly to other kinds of 'friction'.

² Many, or perhaps most, economists would not, however, regard the existence of this particular 'friction' as destroying one of the prerequisites of perfect competition according to their (less strict) definition of them.

³ Above, p. 112.

still less the potential) operators in any branch, but only a partial pooling. This argument, however, is simply another way of saying that the 'common view' of the future in the detail which appears necessary for true 'coherence' of all the branch forecasts is not achieved.

5. The decentralist view

We come now to a third approach to the problem of the market shares under competition, the approach which belongs to decentralised forecasting. If we do not accept the idea of a 'common view' of the future total market for a product, it cannot appear to us that there is a cake of given size which has to be divided up *ex ante* between the producers. Indeed, the assumption of non-uniform expectations implies that if, in a competitive branch, we took each producer's prediction of his *absolute* market share obtained from *two* components, that is, his estimate of the size of the total market and his estimate of his relative share, the total of all the producers' estimated absolute shares would not, except by chance, correspond to any individual producer's estimate of the size of the total market. Under decentralised forecasting there is no mechanism which makes the estimates by producers add up in this way, and hence no 'spontaneous' force providing for *ex ante* coordination of their investment plans in the manner assumed by 'informational' planning. And the decentralist conception does not assume that it will be necessary *in the typical case* (a qualification which will be elaborated below) to introduce such coordination by, say, binding the producers to cartel agreements. It assumes that a fairly good *ex post* coordination will come about (without sacrificing competition) through the plurality of decentralised forecasting efforts and with the aid of the phenomenon of compensating errors (or the working of the 'unstrict' law of large numbers).

This conception contrasts not only with that of centralists who hold that 'coherence' in centralised forecasting requires making the relative shares explicit, but also with M. Massé's conception. Whereas he sees the compensation between prediction errors as taking place exclusively at the level of the relative shares (there being only one prediction of the size of the total market), the decentralists see it as working at two levels at once, that is, between the different predictions of the size of the total market and between these and the predictions of the relative shares. If the argument of the preceding section is correct, the compensation cannot be a purely one-way process of the kind envisaged by M. Massé. That argument leaves us with only two, not three, possibilities. *Either* compensation does not exist

at all (because eliminated by the 'cartel solution'), or it is the two-way process envisaged by the decentralists.

Their view implies that there is no way of making the two elements of uncertainty (about the total market and the relative shares respectively) separate and distinct *at the level of the branch*, even if they are so in the mind of the individual entrepreneur in the branch. Moreover, in an economy where consumers' income is high and increasing and where new products are continually being created, the two elements may often merge even for the individual entrepreneur. His problem may be one of estimating his 'relative share' of a 'market' for a large variety of products taken together. He may be as much aware of 'competition' from producers in other branches as of that from other producers in his own branch. In such cases, the lines between markets for individual products are indistinct, the concept of a relative share in a market for a specific product loses much of its significance, and the entrepreneur may see his prediction problem as one of estimating his 'absolute share' directly, rather than of deriving it from two components that are distinct and separately assessable. An economy in which large areas of production are highly subject to innovation is in any case one which centralised forecasting by branch has great difficulty in fully covering, as many French planners acknowledge.

In this discussion of the decentralist position on the problem of relative shares we have been referring to the form which the decentralists assume that expectations in multi-firm branches will take *in the typical case*. This position does not exclude the possibility of exceptions to the general rule of non-uniformity of expectations among the various firms in a branch about future demand (and other) conditions in that branch. It is conceivable that a few branches might constitute islands of perfect uniformity of expectations, with the result that the firms in them would be induced, or practically compelled, to share out the respective markets *ex ante*.

The decentralist position, however, absolutely precludes the possibility that, so long as the economy is based at least in part on free enterprise and competition, it would ever be possible (notwithstanding technical improvements in the construction and operation of computable models) to set up a general mathematical model for the economy and to feed it with the data that would determine the appropriate programme of operations for each and every firm in the manner contemplated in section 2 of this Chapter. This point will be developed further in the following Chapter.

XII Forecasting Methods and Comparative Economic Systems

1. Implications of a genuine common view, or of a forecasting monopoly

We now come to the final source of doubt about the validity of the theory of pure indicative planning. It concerns the conditions under which all the economic operators in a decentralised system would reach a truly common view of the future as implied by that theory.

The existence of a common view that is not artificially contrived presupposes a general belief in correct forecasting of all the elements affecting economic decisions. We are faced here with the question, which was often debated in the past, of what kind of economic system would emerge in a world of perfect foresight. Although immense logical difficulties stand in the way of exactly visualising such a world, one thing which seems clear is that the entrepreneurial function as traditionally understood would have ceased to exist. Differences in knowledge about market and other prospects in the various lines of activity would have disappeared and risk, in the usual sense of the term, would have been eliminated. There would still be the task of continually allocating and re-allocating resources between activities in accordance with the pattern required by the changing, but perfectly foreseen, ultimate determinants of the optimum allocation. But it appears incontestable that if this task were left to a multiplicity of independent entrepreneurs as their sole function, the result would be indeterminacy throughout the economic system, and that the task would therefore have to be entrusted to a central agency. This conclusion was drawn many years ago by Professor Frank Knight, who expressed it by saying that a state of 'practical omniscience on the part of every member of the competitive system' (such as he thought was a major 'prerequisite for the achievement of perfect competition') would 'force an authoritarian economic system upon society' as a way out of what would otherwise be chaos.¹

It would therefore seem that the ultimate 'friction' which allows the competitive, free-enterprise system of the real world to work is uncertainty,

¹ He thought that the chaos would be created by the universal and unlimited struggle for monopoly power, this struggle being the only remaining 'entrepreneurial' function. He concluded that 'an ideal system of perfect competition . . . is inherently self-defeating'. (F. H. Knight, 1921, pp. 190, 193 and 197 of 1933 edition.)

with its natural concomitant of non-uniformity of expectations. The absence of this 'friction' would be just as destructive of the kind of competition which exists in practice as of the 'ideally' perfect competition which, paradoxically, pre-supposes that absence. In other words, if perfect forecasting were ever achieved, it would spell the natural end of risk-taking, competition and free enterprise, or in short of the market economy. This conclusion is the reverse of that to which M. Massé's 'logic of the Plan' seemed to lead, namely that the market economy would function the better the closer we came to conditions of perfect foresight. One difficulty in trying to visualise the implications of a gradual and continuous approach to perfect foresight is seeing how close we could get before the market economy disintegrated. Probably, however, we may suppose that once a universal belief in an 'asymptotic' approach¹ to perfect foresight developed, this would be sufficient to cause the break-up to begin. It is conceivable that this belief might affect some branches of the economy earlier than others; that the break-up would not occur in all at the same time; and that, for a while, a 'mixed' system would exist with some branches remaining under free enterprise while others had already inevitably passed into the hands of state monopolies or state-supervised cartels.

As indicated in the previous Chapter, it also seems that the generalised indeterminacy and need for central direction of the economy that would be created by perfect certainty about the economic future might equally be created by uniform expectations, or a 'common view', concerning an uncertain future. Hence, if a central forecasting service succeeded in destroying competition in forecasting,² it would destroy competition *tout court*. It is true that, so long as the future remained basically uncertain, a 'common view' proposed by the central forecasting service would be unlikely to win *spontaneous* acceptance by all the operators in the system, so that there would be some 'deviationism' unless the 'common view' were strictly imposed (by the enforcement of targets). There is, however, a danger (emphasised especially by opponents of centralised forecasting in West Germany³) that such deviationism might be not eliminated but greatly reduced by mere 'persuasion'. If this happened it might bring about the phenomenon mentioned above, namely a partial dissolution of the competitive system and the cartelisation, or taking-over by the state, of some branches of the economy.

¹ It is difficult to give a precise definition of what is meant by such an approach.

² A French liberal economist who has pointed to the dangers of attempting to establish this kind of monopoly is Professor Maurice Allais, 1964.

³ Below, pp. 145-6.

2. Decentralised forecasting as an integral part of the market economy

I conclude, therefore, that centralised and decentralised forecasting systems definitely belong to two distinct kinds of economic system. Centralised forecasting and the related *ex ante* coordination of investment and output decisions fit only into a centrally-directed system; and decentralised forecasting is an indispensable part of an economic system resting on decentralised decision-making. The two aspects of decentralisation (or centralisation) cannot be dissociated. An economic system that is based on free (though imperfect) competition and on free enterprise belongs almost by definition to a world where the future course of economic events is basically uncertain and entrepreneurs do not have uniform expectations or a 'common view' about that uncertain course of events.

Again we must recognise what our conclusion does not imply, as well as what it does. It does not signify that economic liberals, or partisans of the free-enterprise system, should seek to prevent the diffusion of information or improvements in the techniques of forecasting with the aim of trying to save that system from ultimate destruction. Not only would it be impossible to arrest such a process were it taking place, but most economic liberals fail to see it as a real threat because they do not regard perfect forecasting as being attainable¹ in the world as we know it, or as it might become in any relevant future period. 'Pessimism' on this score is part of their philosophy. Nor is the decentralist thesis equivalent to denying the positive advantages of diffusing genuine statistical and other information and of encouraging 'exchanges of views about the future'. It recognises that to the extent that such exchanges are possible in a competitive system they may be beneficial in helping each operator to improve the accuracy of his prediction, as he should constantly be striving to do. But the decentralist thesis denies that these exchanges will lead spontaneously to a 'common view', so long as the future cannot be predicted with certainty. Furthermore, it denies that an attempt should be made to substitute such a view for the many different views that are the natural accompaniment of uncertainty.² A successful attempt would, it suggests, give the worst of both worlds, by leading to the disintegration of the competitive system even

¹ The denial of this possibility for economic events in their totality does not, of course, necessarily imply a belief that all items will always be imperfectly foreseeable. It is possible to conceive of a 'mixed' situation. (Above, p. 134.)

² In defending the 'German view' Rolf Gocht (1963) has said: 'It is part of the unforeseeable future that there should be a wide range of different judgements, and different errors, and consequently different behaviours of entrepreneurs.'

though nothing approaching perfect forecasting had been achieved as a compensation.

3. The role of mathematical models, general and particular

Our conclusion on the incongruity of centralised forecasting in a market economy holds whether the forecasting is done by the present French methods or by the more sophisticated means, to which some of its advocates in and outside France aspire, of computable models of economic development. Some further observations must now be added to those in the previous Chapter on the use of such models.

The view has recently gained ground that, although there are certain technical and practical problems still to be solved, it is possible in principle to construct a computable model, the operation of which would simulate the working of a competitive free-enterprise economy. Exponents of this view contend that such a model once constructed will enable the economy to work more efficiently. Using essentially the same argument as underlies M. Massé's 'logic of the Plan', they say that the 'shadow prices' signalled by the model will complete the 'information' on relative costs and prices which an economy based on decentralised decisions needs, but which is only partly obtainable in the form of 'real' prices quoted on the market. They also look forward to the day when the operation of such a model will facilitate the running of the centrally-directed (socialist) economy by making it possible for it to imitate the working of an 'ideal' market economy. With this double prospect in view, they conclude that the 'operating characteristics' of the two economic systems, 'western' and 'eastern', may be brought 'much closer together'.¹ This variant of the 'convergence theory' that is now popular in the 'west' invites certain comments in the light of our analysis in this and earlier chapters.

One essential difference between the decentralised free-enterprise economy, or the 'market economy' as this is usually understood, and the centrally-directed economy (whether socialist or corporatist) is that the former works to a plurality of views of the economic future and the latter to a single view. This is a feature of the market economy which the centrally-directed economy obviously cannot imitate, even if it may imitate, as the basis for its (centralised) decisions, a second feature which needs to be sharply distinguished from the first, namely the use of a rigorous 'economic calculus'. Correspondingly, even though it might eventually be possible to construct a computable model which showed how a centrally-

¹ Richard Stone, 1964, p. 19.

directed economy should be operated, it would never be possible to construct one which served the same purpose in a competitive free-enterprise economy. This would be true regardless of how many sources of 'information' about the future could be tapped, of how 'large' (detailed) the model might be made, or of whether improved electronic machines permitted the rapid numerical solution of models of any size and degree of complexity. The ultimate obstacle is not simply the technical difficulty of writing down and solving a system of equations for hundreds of industries and thousands of commodities, but the essential 'operating characteristics' of an economy resting on true decentralisation of decisions. Such characteristics cannot be simulated by any general model.

This point may be seen in terms of the merits and uses of 'partial equilibrium analysis' (of the Marshallian type) compared with those of 'general equilibrium analysis' (of the Walrasian type). Many economists in the past were anxious to expose the inadequacies of partial equilibrium analysis, which allowed only for some but not all of the inter-relationships on which the solution to any specific problem depended, and to emphasise the necessity of resorting to general equilibrium analysis, which explicitly allowed for universal inter-dependence between all elements of the economic system. Applied to our present problem, their argument is equivalent to a warning, similar to that contained in M. Massé's 'logic of the Plan', that the separate solution by individual decision-makers of all their *particular* 'models' would leave inconsistencies, such as could be avoided only by the solution of the *general* 'model'. It is essential, however, to recall again the two simplifying assumptions of the founders of general equilibrium analysis: first, that the same 'market situation' (perfect competition) prevailed throughout the system; and secondly, that expectations about the future were uniform for all entrepreneurs. These assumptions may be appropriate enough to many of the expository and other purposes which such analysis serves, but both are totally unrepresentative of the real world of competitive business and the second creates the very serious theoretical difficulty (regarding determinateness) mentioned earlier (pp. 130-1).

In the real world of competitive business, operators *can* work only with particular or partial models. With the aid of linear programming methods and electronic computers, these models may be made very 'large' in the sense of taking account of a great many inter-dependencies. They may still not be *so* large as to render explicit *all* of the inter-dependencies that would 'ideally' appear in a general model. But—what is more important—even supposing they could be and were made that large, they would

present a multiplicity of 'general' models and not a unique general model by which the entire economic system could be guided. In other words, the way in which the competitive free-enterprise system works is properly described in terms of a network of partial decision-models constructed and operated by the individual decision-makers, models which do not and cannot add up *ex ante* to a consistent general model. Their harmonisation in this sense is something which that kind of economic system cannot by its very nature achieve. It is no paradox that some of the strongest opposition to the notion that the market economy can be centrally planned or guided with the aid of general models drawn up by the econometricians should come from private companies which have themselves set up very large computable models for the planning of their own operations.

4. A possible form of 'convergence'

It seems clear, however, that the kind of economy which some of the mathematical 'modelling' of western economic systems¹ now being attempted is designed to fit is not a free-enterprise market economy, but 'corporative planning'.² Within this context the idea of a 'convergence' between the economic systems of 'west' and 'east' appears more plausible. Some of its exponents appear to have in mind a system in the 'west' similar to that, not yet very clearly defined, at which current economic reforms in the Soviet Union are said to aim: a system based on a 'fusion of centralised direction with managerial independence and initiative in the firm',³ and entailing some sort of 'functional' division of the decision-making power between the central planning authorities and the heads of firms, such that the 'broad lines' (or 'macro-economic quantities') of the programme would be decided by the authorities, and the 'details' (or 'micro-

¹ Some of the general models for 'western' economies are intended not as 'operational models' to guide the decisions of business men, but as 'economic-policy models' to help governments make rational choices between policy alternatives, and to enable them to plan from the centre more efficiently much the same activities as before. To this purpose the particular objections raised in the text do not, of course, apply.

² Interesting in this connection is the suggestion made by Professor Richard Stone that, given the practical difficulties which stand in the way of making the general model of the economy very detailed and large, 'the proper way to introduce greater detail . . . is not to expand the model beyond a certain point, but to set up sub-models for different industries, related to the general model, but established and operated by the industries themselves with the expert knowledge that this would make possible'; and that: 'The final outcome would result from an iteration between the general model and the industry model', in accordance with procedures which he describes. (Richard Stone, 1964, pp. 10-11.)

³ As is proposed by Article 1 of the new statute of the Soviet enterprise, promulgated in October 1965.

economic quantities') by the firms. In theory at least, it is conceivable that in such a system a two- or three-tier apparatus of mathematical models might be employed. At the summit the central planning authorities would run a *general* model relating to all matters to be decided upon at the top level. At the next level the branch organisations of individual industries would operate sub-models relating to the matters within their competence.¹ Finally, at the base the heads of firms might operate their particular models applying to the limited area where they were free to exercise their entrepreneurial talents and where market mechanisms would also be allowed to play a role. There appears to be no reason why such a partially decentralised system should not work, with or without the aid of a computable model, equally well (or badly) under a corporative set-up, implying the retention of private property in the means of production (though with seriously diluted rights), as under a socialist set-up, implying collective ownership of those means.

A proposal for something of the sort, to be based on a corporative set-up, was made in Britain shortly after the Second World War. Using terminology that was, as Robertson said, 'fashionable' at that time, it referred to a division between 'strategic' functions to be performed by the government and 'tactical' functions to be performed by the individual operators.² It was this proposal that prompted Robertson to emphasise the distinction between a mere *delegation* of the decision-making power, analogous to what took place from one echelon to another in an army, and the *dispersal* of that power, such as was assumed by the classical conception of the free-enterprise market economy.³

Two features of the kind of 'functional' (or horizontal) division of the decision-making power that might form the common denominator of a 'western' economic system based on corporativism, and an 'eastern' system based on socialism, are noteworthy. First, this division would differ significantly from the 'sectoral' (or vertical) division which has long existed in the 'west', that is, the division between industries or enterprises that are wholly publicly-run and those that are wholly privately-run. Secondly, it would be different from the 'central planning of the macro-economic quantities' as practised in the 'west' in the past, and meaning merely the regulation of the levels of aggregate investment and demand through monetary and fiscal policy. We must, however, notice the growing tendency in the 'west' to regard 'incomes policy' as being completely on a

¹ Cf. footnote 2, p. 140.

² D. H. Robertson, 1947 (pp. 52 and 59 in 1952 volume).

³ *Ibid.*

par with if not a substitute for monetary and fiscal policy, and as belonging to the 'framework of general conditions' within which the market has to function.¹ The introduction on a permanent basis of central planning of incomes and prices would constitute a very important step indeed in the direction of that new kind of 'functional' division of the economic decision-making power to which we have here been referring.

5. The 'non-rationality' of the decentralised system

Our conclusions on forecasting methods and comparative economic systems may now be linked with some closely related ideas of Professor F. A. von Hayek.²

In many 'western' eyes the attraction of centralised forecasting and general mathematical models is their claim to render more 'rational' the free-enterprise system based on decentralised decisions. The argument of this Chapter implies that this claim is false. It is of the very nature of the genuinely decentralised economic system that it is not, in Hayek's words, the 'product of designing reason'; it is not something constructed by a single mind or meeting of minds. If we want to conserve that system, we are obliged to accept its property of 'non-rationality', along with its other properties that are more obviously desirable. But we *may* regard even this property as desirable, depending on our view of what is sensible behaviour by society in the face of those many elements of uncertainty from which no system of economic organisation can exempt it. The case for decentralisation of economic forecasting and decision-making rests ultimately on the belief that it is *not* sensible for society to act *as though* it were of a single mind about the future course of economic events, when it is not and cannot be so in fact. This belief is but one expression of the idea, going back to the British 'anti-rationalist' reaction of the eighteenth century and recently given new emphasis by Hayek,³ that, contrary to what followed from the 'constructive rationalism' of Descartes, the 'undesigned results of human action' may be not inferior but superior to the 'product of designing reason'. As the French generally acknowledge, the Cartesian view has long influenced their conceptions of the way in which an economy should be organised.

¹ For a recent French expression of this view, see François Ortoli, 1966. M. Ortoli occupied the office of Commissaire au Plan for a short time in 1966-67 before becoming Minister for Equipment.

² F. A. Hayek, 1967.

³ *Ibid.*

In an article written more than 20 years ago on 'The Use of Knowledge in Society', Hayek remarked that

the 'data' from which the economic calculus starts out are never, for the whole society, 'given' to a single mind . . . [and that] the problem of what is the best way of utilising the dispersed bits of incomplete and frequently contradictory information which all the separate individuals possess . . . is one of the main problems of . . . designing an efficient economic system.¹

The argument of this Chapter is that this problem cannot be disposed of by the kind of false single-mindedness which is produced by the procedures of collective forecasting; that it remains a vital one in the discussion of the choice between alternative economic systems.

¹ F. A. Hayek, 1945.

XIII Public Versus Private Forecasting

1. The influence of official forecasting on business decisions

We cannot tell how much real influence centralised forecasting has had on economic decision-making in France. We lack information on the forecasts of the total market, and of their shares, on which individual operators based their decisions, and we do not know much about the extent to which private forecasts were affected by the official ones. It seems clear, however, that in most branches, the operators as a group cannot have kept closely to the Plan's forecasts for the branch, since otherwise the often big discrepancies observed between forecasts and performance could not have occurred.¹ As a general rule, to which there may have been some important exceptions, it was individual forecasts and not the collective ones which prevailed as the guide to production plans and investment decisions. However, the chief objection to so-called 'indicative planning' by many of its opponents is the danger that the official forecasts might in time come to be relied upon by the economic operators.

2. The objection to official forecasting

There has been much confusion in the discussion of the differences which separate the 'French' and the 'German' views, as I shall continue to call them. Defenders of the 'French view' sometimes appear to assume that the point at issue is whether there ought to be any medium-term forecasting at all. They contend that what the French planning authorities do in this regard takes place in other countries under other auspices, usually private or semi-private. Referring to West Germany, they point to the numerous business institutes, market research organisations and trade associations which undertake forecasting for firms or industries, and to the highly developed forecasting departments which the large firms run. And they argue that, if Germany were to draw up a Plan on the French model and collaborate in its extension to the European Common Market, she would merely be completing and perfecting something already being done. They also regard as misplaced the criticism of official forecasts on the ground of

¹ There is an ambiguity here, of course, owing to the Plan's failure to make explicit forecasts for the individual firms composing the branch.

inaccuracy: they point out that no forecasts, including those made by private industry, are infallible.

Such observations fail to meet the objections of the opponents, who see the real issue not as whether there should be any medium-term forecasting, which everybody acknowledges to be necessary and subject to error, but by whom, or under whose auspices, and on whose responsibility such medium-term forecasting should be done. The 'German view' draws a sharp distinction between forecasting done for business, either by private or semi-private institutions or by the business firms themselves, and forecasting by the public authorities which bears the official stamp and is 'recommended' by the government to the whole economy, possibly under the imposing title of a 'National Plan', and to parts at least of which the government may appear to be 'committed'.

The importance attached to this distinction is partly a corollary of the general argument in favour of decentralised forecasting. So long as there are numerous non-official institutions, private associations and individual firms making predictions, but no official forecasting service, it is practically certain that different operators will work to a range of differing forecasts for any given item.¹ As soon as an official forecast enters the picture, it becomes less certain that operators will behave in this way. Instead of being treated simply as one forecast amongst others, the official forecast may tend, at least in some areas of the economy, to become the only forecast to which attention is paid. Several reasons have been adduced for anticipating this danger.

The first is the power of suggestion exerted by the claim that the official forecasts are made with access to the maximum amount of information and with the most 'scientific' methods, and that they are bound to become increasingly accurate. The second is that the idea may be encouraged that the government, in undertaking to forecast market and other developments for private industry, is taking the responsibility for such forecasting off the shoulders of business² on to its own, and assuming an obligation to come

¹ Cf., for example, the six different predictions made in 1959 by different forecasters of the future size of the car 'park' in West Germany and listed by Joachim Zahn, a director of Daimler Benz (car manufacturers), in *List-Gesellschaft*, 1964, p. 146. The six forecasters included two oil companies, a rubber company, a section of the association of the electro-technical industry, a business research institute and a market research association, but no individual car manufacturer. The six were doubtless only a fraction of the forecasts for the motor industry.

² In some instances the nature of 'indicative' planning has been misunderstood by business men. Referring to experience in Spain, where French planning has been closely imitated, Señor Gregorio López-Bravo, Minister of Industry, commented that: 'The most difficult problem in our programming of the indicative type is to make correct

to the aid of business if the forecasting goes wrong. The 'French view' is that such an interpretation is precluded under the 'concerted' planning procedures, since these make the forecasts a joint responsibility of government and business. But this argument is not fully convincing, and France's experience suggests occasions when the government has felt a special responsibility towards certain industries because the 'promise of the Plan', to revert to M. Massé's expression, has not been fulfilled.¹ Indeed, there is a serious danger that the figures in what is said to be a purely 'indicative' plan, which are supposed to represent no more than forecasts, may develop into targets. Moreover, industrialists may press for the insertion of targets in the Plan if they can expect help in order to reach such targets, or in the event of achieving targets which prove to be too high and leave them with excess capacity. The existence of pressure of this kind has been acknowledged in French planning circles and is cited as one reason for making it the general rule not to set sectoral targets.²

Even supposing that this rule is strictly observed, there is a third reason why official forecasts may sometimes become equivalent to targets. Large firms in highly concentrated sectors may hesitate to depart from the official branch forecast (or what they regard as their share of it) for fear that they may be publicly blamed for having ignored the forecast if it happens to turn out to be more or less correct.

These considerations amount to saying that, if the state presumes to make forecasts for private industry, it cannot entirely escape responsibility for errors to those who rely on them (whether freely or under pressure), and that such official forecasting is equivalent to a new kind of protectionism which is obviously not unwelcome to a substantial part of business.

3. The proper attribution of the forecasting function

Discussion of the value of centralised forecasting raises the question: With whom should the various parts of the forecasting function rest in a free-enterprise system? What forecasts can and should be put out to other bodies than the firm? Again it is in West Germany that this question has

forecasts, because our business men take our forecasts as gospel, and keep to them.' (Reported by *Il Corriere della Sera*, Milan, 7 May, 1965.)

¹ The government measures taken in the early 1960s to assist the refrigerator industry have often been cited in this connection. And perhaps the aid given to the steel industry in the mid-1960s was partly compensation for the government's having induced the industry to follow a wrong forecast.

² Yves Ullmo, 1965.

received most attention, particularly by business men.¹ The main lines of the 'German view' on this issue may be summed up as follows:

1. In branches where firms all require similar or largely similar investigations to be made as a basis for their planning, and where these investigations are very costly, firms may entrust them to their trade association. Each firm will, nevertheless, always remain free (assuming it is not subject to cartel discipline) to 'correct' the resultant forecasts according to its own judgement and in the light of independent investigations, and will remain free to adopt a 'deviationist' position. Some forecasting may even be passed to the higher level of a national (or even supranational) authority, but always under the same conditions.²

2. In branches producing a highly variegated product, the firm must be on its own. It must make its forecasts on the basis of direct contacts with markets and customers, of reports from representatives, of inquiries into the needs and competitive situation in marketing areas which it has not yet penetrated, and of knowledge of its own technical and economic possibilities.³

3. The proper sphere of forecasting by the public authorities is thus strictly limited. It naturally includes forecasting as a guide to decisions by the authorities in their own domain (nationalised industries and general economic policy). Such forecasting by the state on a more or less detailed branch basis, but essentially for its own internal use, might preferably not be published. There could be no objection to the authorities publishing forecasts of certain items which, while of general concern to private industry, are not in any way involved in the competitive process. Under this head would be forecasts of expenditures by public departments, of planned development of the publicly-provided 'infra-structure' of industry and of investment and output plans of the statutory monopolies (nationalised industries). Movements in the labour force have proved so manifestly impossible to predict as to give rise to doubts about the wisdom of including them among published forecasts, since giving wrong figures may be worse than giving none,⁴ and leaving entrepreneurs to make their own guesses. Official forecasting of major aggregates such as overall growth and

¹ *List-Gesellschaft*, 1964.

² This paragraph is a rough summary of the view put by Ernst Mommsen, Director of Phoenix-Rheinrohr (steel), Düsseldorf, *ibid.*

³ Cf. the account of this view given by the Verein Deutscher Maschinen Anstalten (the trade association of the engineering sector), *ibid.*

⁴ Rolf Gocht, *loc. cit.*

total investment may not be very useful to industry but may also not be very harmful. Particular objection is taken to official forecasting by branch or product.

4. Official forecasting as interference with market mechanisms

In short the 'German view' is that the state should leave forecasting for *private industry* to firms and other private organisations. It holds that all official 'programming' by branch or product, even if limited to forecasting, constitutes state interference with the mechanisms of business decision-making and the free-enterprise economy because it may render business men less free or willing to do their own forecasting, make independent decisions, and assume responsibility for the consequences. It suggests that a supposedly purely 'indicative' programme, with detailed figures for branches and sub-branches, tends in one way or another to take on a quasi-imperative character.

French planners have sometimes accused Germany's 'neo-liberal' economic policy-makers of unreasonableness in rejecting indicative planning on a national or international scale whilst engaging in a good deal of 'partial planning' of an interventionist kind. This 'German' attitude is not as inconsistent as may appear, however. Centralised forecasting might in the long run do more harm to the market economy than a moderate amount of traditional interventionism. This is apart from any suspicion we may have that French-style planning extended to the European Economic Community would *not* be purely indicative, but would be associated with new pressures towards the adoption of interventionist methods of implementation.

XIV Summary of Part Three

The analysis contained in this part of the book has led us to reject the idea that there exists or can exist a form of overall central planning consisting of centralised forecasting which supplies a 'missing link' in the mechanisms of the market economy and improves its operation. Our analysis may be summed up by saying that when M. Massé phrases the 'logic of the Plan' in the words: 'It is a good thing if everybody individually scrutinises the future; but it is better if all make their forecasts and take their decisions in common',¹ the last half of his dictum is the negation of the 'logic of the market economy'.

We have argued that the 'logic of the market economy' pre-supposes that different operators, having different expectations, different judgements and access to partly different information, make their forecasts and take their decisions independently of one another. It implies that competition in prediction is an integral part of competition in the wider sense and a part which cannot be eliminated without eliminating the whole. It also implies that the many different views of the future held by independent operators cannot, for various reasons discussed at length in the preceding chapters, be aggregated into a 'common view'. We have observed that the 'liberal philosophy' regards this decentralisation of the forecasting function as one of the advantages of the market economy over the centrally-directed economy, so long as the future is uncertain. In other words, the 'liberal philosophy' regards it as natural and desirable that the economy should work to a plurality of views, rather than to a single view of such a future.

We have also argued that the working of the market economy is intimately bound up with *non*-uniformity of expectations among economic operators about an *uncertain* future, and that this kind of an economy could not survive if expectations were uniform. This verdict would be true no matter how the uniformity came about, whether by the achievement of perfect accuracy in forecasting or by the creation of a general belief that a continuous approach to such accuracy was being made, even though this belief was unjustified, or by a successful effort by a central forecasting agency to persuade all operators to use a unique set of forecasts on the ground that this set, though admittedly not accurate, was 'better than all

¹ Pierre Massé, 1963 (1), p. 51.

others'. Consequently, if we want to preserve a market economy we may listen to the exponents of centralised forecasting when they say that 'it is wise to make decisions on the basis of more information rather than less' and that it is desirable to encourage 'exchanges of views about the future', but not when they propose artificially compressing those views into an allegedly 'common view' or 'best estimate'.

Our analysis has confirmed the opinion, held by many planners, that there can be no such thing as central planning (or *ex ante* co-ordination) of all economic activities which is purely 'indicative'. In other words, there is no such thing as 'liberal' or non-interventionist planning. We are therefore obliged to regard as undeserved the place given in recent literature on comparative economic systems to 'indicative' planning, conceived as a new kind of integral central planning of the economy.

We have concluded, also, that there cannot exist a *Plan*, as opposed to a multitude of *plans*, for the market economy, and that it is impossible to devise a general (unique) computable model showing how such an economy should be operated. There are logical as well as practical reasons why it would never be possible to write down 'behavioural equations' for all the individual operators in such a way that each could identify his place in the model and adopt the solutions it signalled to him as the basis for his decisions. Were it generally believed that this was possible, the market economy would have ceased to exist. These conclusions confirm the traditional view that there is no form of centralised guidance (or *ex ante* coordination) of the activities of all the economic operators that is not alien to the market economy; that it is impossible, in other words, to reconcile the 'philosophy of liberalism' with the 'philosophy of the planned economy'.

Finally, we have concluded that the attempt by the state, acting through a central forecasting agency, to take over the function of forecasting for industry, or to impose (by propaganda or 'persuasion') a 'common view of the future' upon the market economy, is a form of state 'intervention' like other more traditional forms but capable of doing more damage to market mechanisms than many of these other forms. We may say that the right to hold and act upon 'non-conformist' views about the future is among the 'essential economic freedoms' as conceived by the 'liberal philosophy', and that it goes hand-in-hand with freedom of enterprise.

PART FOUR

Possible Futures for French Planning

XV The Logic of the Plan: 'New Look'

1. The motives for the revision

In 1963-4 the Commissariat took a new step forward in the process, which M. Massé had said was necessary, of continual adaptation of the theory of the Plan to the practice. The effect was practically to demolish the theoretical structure which he had built up previously and which we criticised in Part 3 of this book.

M. Massé described this 'new look'¹ of the Plan as a response to a combination of circumstances.² One was the blow dealt the 4th Plan in 1963 by the inflationary pressures which prompted the introduction of the 'stabilisation plan'. A second was the limitation imposed by membership of the European Common Market on the recourse to some of the exogenous planning instruments used previously. A third was the return to more liberal ideas in France concerning domestic economic policy over the long-run, that is, after the relaxation of the special measures of intervention associated with the stabilisation plan and regarded at that time as only temporary. A fourth was the increased difficulty of forecasting economic developments due partly to the greater exposure of the French economy to foreign influences and partly to the growing uncertainty about the future pattern of consumers' choice as society moved up to higher income levels. There was, however, also a fifth circumstance. The planning authorities now admitted that they had previously, and especially when the 4th Plan was drawn up, over-estimated their powers of prediction.³

In face of the new circumstances, M. Massé asked himself, he says, the questions: 'Do we still need a Plan? And is a Plan still possible?'.⁴ His answer was that a Plan was still both useful and possible but had to be conceived in slightly changed terms. More emphasis than before had to be placed on the Plan's 'flexibility'. The official conviction that the conception of the Plan had to be given new dimensions sprang not only from the

¹ Pierre Massé, 1964 (3), p. 223.

² *Ibid.*, p. 222. See also *V^e Plan (Options)*, 1964, p. 46; and Pierre Massé, 1965, pp. 48 ff.

³ *V^e Plan (Options)*, p. 46.

⁴ Article quoted in footnote 1 above; and *V^e Plan (Options)*, pp. 5 ff.

changed circumstances mentioned by M. Massé but also from the recognition that the public had acquired an exaggerated notion of the significance and effects of the Plan. This notion had been encouraged by the authorities themselves (especially after the spring of 1961) as well as by many non-official enthusiasts, but it was now implicitly admitted to have been ill-suited to the Plan's purpose of educating the public to a better understanding of economic affairs.

2. The ambiguity of the Plan

Indeed, half way through the 4th Plan many thoughtful people were wondering what the Plan really meant or whether it (or any part of it) was a 'plan' at all. The confused state of mind among some of the general public is illustrated by a letter from a reader of *Le Monde* in late December 1963¹ expressing bewilderment at what had occurred in the motor-vehicle industry. Even admitting, he said, that 'the execution of the Plan cannot always exactly fit the forecasts, and that adjustments may be necessary during the course of its execution', the fact that the industry increased its rate of growth so far beyond that indicated by the Plan raised serious questions. Was it right, he asked, that

'certain industries . . . [should] consider the Plan as just a scrap of paper and refuse to follow, even approximately, its directives? Either the Plan is useless,' he said, ' . . . or else it constitutes a rule of national life and everybody must undertake to follow its directives, it then being the role of the government to aid those who are unable to keep up and hold back those who bolt ahead.'

This letter brought a reply from M. Massé, who recalled what the 4th Plan had said about flexibility² but conceded that the letter-writer nevertheless had a real point, namely that 'the distinction between what is a target and what a forecast in the Plan had not yet been made sufficiently clear'. This was a question which, he added, would merit a lot more attention in the 5th Plan.

Not only, however, did the public have to be dissuaded from believing that the Plan represented a 'rigid prefiguration' of what would or should happen in individual industries. It also had to be disabused of the idea that the authorities could 'plan', 'choose', 'adopt', or 'fix' an exact growth rate for the economy as a whole. This terminology had come in recent years to be widely used in the press. *Le Monde*, for example, had in 1964 gone to the extreme of suggesting that failure to reach the growth rate 'voted' by parlia-

¹ Alain Rambaud, *Le Monde*, 27 December, 1963.

² Above, p. 21.

ment as part of the text of the 4th Plan (or rather the failure then expected to result from the 'stabilisation plan') was equivalent to the government defying the law.¹ (As luck would have it, the growth rate 'voted' by parliament was in the end reached.)

3. The Plan and the projection

The Plan's 'new look', which had been fashioned before the end of 1963, was incorporated in the *Report on the Principal Options* (of the 5th Plan) presented late in 1964.

The first element of novelty related to the significance of the projection and hence of comparisons between forecasts and performance. The view was now quite explicitly adopted that little if any importance attaches to such comparisons, and especially to detailed comparisons by branch and sub-branch. It was formulated in the following terms. 'The question which is often asked, "In what measure are the French plans realised?"', contains an ambiguity.' A divergence between the observed performance and the 'global projection' is not by itself significant because 'the projection is not the Plan but the instrument of the Plan'. The failure of the projection to come true does not necessarily mean that the Plan itself fails, since the *ensemble* counts more than the detail. *The Plan* is in danger of not being realised² only when the totality of the forecasting errors is *on balance unfavourable* to the reaching of one or more of the targets they affect. So long as the figure for expansion in aggregate production, for example, is reached or surpassed, it is not important that there have been errors of prediction in the underlying sub-aggregates taken one by one.

4. The distinction between targets and forecasts

The second novelty was the promised definition of a target, as distinct from a forecast. Targets are 'less than a guarantee but more than a forecast'. They will be defended by corrective action if necessary and if reasonably possible. If, for instance, the rate of overall growth tends to fall short of the target rate, the authorities will take action to prevent or minimise the divergence, provided such action does not conflict with other broad objectives of the Plan (i.e. avoidance of inflation or of undue pressure on the balance of payments).

Where does the line between targets and forecasts run? The *Report on*

¹ *Le Monde*, 23 May, 1964.

² Pierre Massé, 1963 (1), and 1963 (3); and *V^e Plan (Options)*, 1964, p. 49.

the *Options* mentioned as 'targets' a number of the larger aggregates in the programming by volume (i.e. the overall growth rate,¹ private consumption, the consumption of the 'administrations', productive investment, and investment in 'collective equipment'), along with housing. It also mentioned one item in the programming by value, namely social security benefits, although no figure was put on this item at that time. Also mentioned as targets (or as having a 'distinctly normative character') were a number of familiar general policy aims, that is, full employment, stability of the general price level,² and equilibrium or a slight surplus in the balance of trade.

On sectoral targets M. Massé had not so long previously expressed certain ideas about the criteria that might be used in distinguishing which branch items in the global projection were in the nature of targets and which were simply forecasts.³ These ideas were not, however, followed up in the *Report on the Options*, where the only sectoral target clearly mentioned (apart from housing) was coal output which was described as a 'special target' of social and regional importance required to keep the rate of decline of the industry within tolerable limits. In the *General Report on the Plan*, the housing target was re-defined to refer solely to 'social' housing, the figure for the total of housing units now being no more than a forecast. Thus there were no sectoral targets for private industry.

5. Indicative planning also for the public sector

A third feature of the 'new look' concerned the meaning of the Plan for the public sector, which was not the least of the 'misconceptions' the new definitions were intended to clear up. Exponents of French planning had often contended that even if the Plan were only 'indicative' for the private sector, it was 'imperative' for the public sector. It had always been difficult for the outside observer to understand this distinction since it seems no more reasonable to expect the state rigidly to follow a programme established for five or six years ahead than to expect private industry to do so.⁴ Both the Commissariat au Plan and the Ministry of Equipment⁵ found it

¹ The target rate was approximately 5 per cent per annum, or more exactly 27-28 per cent in five years. As in the usual French definition, the growth rate refers to 'gross domestic production'. The 5 per cent rate of growth in the latter is said to be equivalent to 4.7 per cent in 'gross national product' which is the basis of the calculations used in the international statistics.

² In the final document (*General Report on the Plan*) a 1.5 per cent average annual increase was inserted as the maximum envisaged.

³ Pierre Massé, 1964 (1), pp. 133-4.

⁴ This is not of course to deny the notorious inadequacies of public enterprise in meeting the demand for services such as telephones.

⁵ The Minister at this time was M. Edgard Pisani.

necessary to emphasise this truth¹ in response to criticism brought by another branch of the public administration, the Court of Accounts. The Court had objected that the Plan's investment programmes for that part of the public sector over which the Court's competence extends (i.e. activities of a 'non-commercial' character²) had not been drawn up in sufficient detail for it to be possible to determine whether or to what extent the Plan had been carried out.

6. Revisions and warning signals

The 'new look' contained two features claimed to be a safeguard against 'possible errors in the projection'. The first related to that part of the projection which was purely prediction, and for which it introduced the principle of annual revisions.³ The second related to the part which consisted of targets and for which it provided that there should be no regular revision at time-intervals fixed *a priori*, but that a system of 'warning signals' should be set up to help the authorities decide if and when revisions needed to be made. This second feature meant in effect constructing mechanical rules for guiding the authorities in their short-run policy, although it was hedged about with qualifications: the rules themselves were to be flexible, that is, subject to revision in the light of experience, and action by the authorities in response to 'warnings' was to be not automatic but discretionary in character. The new feature was intended to serve the further purpose of educating business men and the general public to accept 'changes in strategy' in economic policy, whenever the economy enters a 'critical zone', as part of a 'permanent design' and not as arbitrary shifts in policy or a failure of the government to keep its promise. (The 'stabilisation plan' of September 1963 was cited as a case in point.)

The first version of the system listed five warning signals: two were warnings of being on the 'threshold of inflation' and hence of the need for putting on the brake; and the other three were warnings of being on the 'threshold of recession' and hence of the need to tread on the accelerator.⁴

¹ *Cours des Comptes*, 1964, especially pp. 142-5.

² The nationalised and other public enterprises come under another public accounts body (Commission de Vérification des Comptes des Entreprises Publiques).

³ The principle of the fixed terminal year was retained. The 'rolling plan', though regarded as in theory the most satisfactory formula for revising national plans, was rejected for the time being at least, partly on the ground of the increased burden of work it would impose on the planning services.

⁴ *V^e Plan, Rapport général*, 1965, Chapter I. The warning signals were defined as follows:

a. *Price level*: an annual rate of increase in consumers' prices (measured from the latest

One way of viewing this system of warning signals and 'thresholds' is as defining the limits within which the main target (gross domestic production) has to be regarded as flexible. The definition is, however, imprecise and seems to imply that the limits may be quite wide. A growth rate of only 2 per cent per year, which was taken as the threshold of recession, had very rarely been registered in France during the post-war period, and the responsible section of the Economic and Social Council had suggested taking instead a growth rate 1 per cent below the rate foreseen by the Plan.¹ But the planning authorities evidently thought such a commitment would be too heavy for the government to assume.

We are left doubting whether the government, by adopting a target growth rate of 5 per cent and promising to defend this rate within limits of which the lower may be 3 points below and the upper one is unspecified, is really giving operators surer guidance on the average growth rate over the next five years than they would have by working to a rough formula of their own based on past and current experience. Only those most strongly under the influence of the *mystique* of the Plan can altogether escape such doubts.

7. The role of the 'projection' redimensioned

In describing the 'new kind' of Plan the 5th was to be, the *Report on the Options* declared that it was not a question of 'changing the spirit of the Plan, but only of making the previous tendencies more precise, and of developing and systematising them'.² Looking back at the original theory

available figure for a period of 12 months) more than 1 per cent above that 'in the countries which are France's main commercial partners' during three consecutive months.

b. Balance of payments: a coverage of imports by exports (calculated from Customs returns and on the basis of a 12-month moving average) of less than 90 per cent during three consecutive months. (Equilibrium is at present obtained with about 92 per cent coverage, given that the Customs register imports c.i.f. and exports f.o.b.)

c. Gross domestic production: an annual rate of growth of 2 per cent or below; and *industrial output:* an annual rate of increase during three consecutive months of 2 per cent (calculated on the basis of seasonally-corrected indices for the previous 12 months).

d. Productive investment: an annual rate of growth below 2.5 per cent.

e. Employment: a number of people in search of jobs equal to 2.5 per cent or more of the labour force during three consecutive months.

In the autumn of 1966 the authorities announced that two further warning signals would be added: one would relate to movement in the domestic price level considered independently of the movements in foreign price levels; and the other to the growth in France's gross domestic production, or industrial output, in comparison with the growth in the same aggregates in other countries.

¹ *Conseil économique et social*, September 1965 (1).

² *V^e Plan (Options)*, p. 8.

of the Plan conceived primarily as collective forecasting, however, we may ask how much was left intact. Did the new emphasis on the flexibility aspect amount to admitting that the coherent system of forecasts underlying the Plan did not after all exercise the coordinating or guiding function in the economy that had been attributed to it? Or could the theoretical construction previously erected by M. Massé still be saved?

M. Massé himself seemed to think that it could, at least up to a point. 'Coherence' remained a key word in the language of the Plan. It was once again emphasised that

'the plan, or more exactly the projection on which it rests', since this distinction now had to be made, 'prefigures, if everybody plays the game, a situation in which the factors and the products of the various branches exchange against one another on markets that are in equilibrium.'¹

It is significant that a slightly later version of the sentence just quoted omitted the phrase 'if everybody plays the game'.² Indeed, the idea that everybody could do so now appeared to be excluded by the emphasis the 'new look' placed on the impossibility of achieving anything like predictive accuracy for every branch and sub-branch. The claim continued to be made that 'the mere existence of the projection . . . is a reducer of uncertainty',³ but what this claim meant in the new theory of the Plan was evidently much less than it meant in the old. A fairly sharp distinction had now been drawn by M. Massé between two groups of products: for the first (embracing electricity, steel and cement) the estimates made by the Plan are *relatively*⁴ sure, while for the other (individual manufactured goods) the situation is much more fluid. But, he added, it is the first group which involves particularly heavy investment programmes that are difficult and costly to adjust, the implication evidently being that the Plan exercises its coordinating function where it is most needed. He explained also that the reason for the differing reliability of the Plan's forecasts between the two groups is that the products in the first enter into most of those in the second, so that uncertainties affecting the individual products in the second group partially cancel out in their effect on the first.⁵ This amounts to saying that in the area where the coordinating effect of the Plan applies it is due not so much to 'everybody playing the game' as to the working of the 'unstrict' law of large numbers. The area is admitted to be

¹ Pierre Massé, 1964 (1).

² *V^e Plan (Options)*, p. 42.

³ *Ibid.*, p. 7.

⁴ This word needs emphasising in view of the poor estimates made by the 4th Plan for both steel and cement.

⁵ Pierre Massé, 1964 (1), p. 122.

a limited one; and it consists of branches where market research and forward planning are well-developed anyway. But it is claimed, nevertheless, that the 'global projection'¹ enables these branches to make more reliable estimates of their prospects than they could do on their own.

For the remaining branches of the economy, that is the vast majority, the new conception of the utility of the 'global projection' rests on the yet more slender claim that it helps operators to have before them 'an image of *a coherent future*'² even if this is very different from *the future* as it turns out to be. Those who make this claim usually base it on one or more of three points. The first is merely that the projection helps operators to reject from their field of vision the *most unlikely* combinations. The second is that, if operators know the main hypotheses underlying the branch forecasts in the projection, they will know how to adjust the forecasts when developments diverge from those hypothesised. The third is that the exercise of drawing up any coherent set of branch forecasts, even though they are mostly known to be fictitious, serves a pedagogic purpose of instructing industrialists in the principles of long-range investment planning, and especially in the role of inter-industry relationships, thereby conducing to more rational industrial management, particularly in many small and medium-sized firms which are said to be backward in this respect. All these effects are of relatively modest importance.

Virtually abandoned is the notion that the detailed predictions by branch, sub-branch, or product can be of use (in more than a few instances) to producers as a direct guide to investment and output decisions. Indeed, the tendency is rather to warn that the predictions at this level are not to be taken too seriously, and to emphasise that predictive accuracy can be approached only at fairly high levels of aggregation, the higher the better. There is also a tendency to argue that the reason why detailed forecasts by branch and sub-branch are made at all is that they are necessary for arriving at (or checking) the figures for the larger aggregates.³

It is difficult to avoid the conclusion that, despite the tendency in official circles to minimise the extent of the change, the new theory does represent a marked toning-down of the influence attributed to the Plan *qua* collective forecasting. The idea that such forecasting coordinates activities throughout the economy, or that it makes the Plan 'self-implementing', is in effect

¹ This term is evidently here used in the first of the two senses distinguished in footnote 4, p. 114.

² This expression (but without the *a* italicised) appears in *Ve Plan (Options)*, p. 9.

³ For this and some of the other points just mentioned on the 'use' of the Plan, cf. Yves Ullmo, 1965.

abandoned, even if vestiges of the earlier terminology are retained.¹ Quite explicitly discarded is the idea which had previously been encouraged that the detailed projection constituted the core of the Plan reduced to its basic minimum.

Characteristic of this 'redimensioning' of the role of the coherent system of forecasts is the way this system was presented in the 5th Plan. A distinction was drawn between the 'projection' (in volume) confined to the 29 large branches (corresponding to the division used in the national income statistics) and the 'forecasts' for sub-branches or for individual products. These 'forecasts' were in some instances set out in much less formal and precise terms than were those contained in the 'projection' in the narrower sense, or than had been those for the same items in the earlier Plans. Indeed, in some instances no exact figures were given at all. The distinction here drawn was presumably meant to underline that the forecasts were more reliable at the higher levels of aggregation (the 29) than at the lower levels. It is noteworthy, however, that the 29 large branches differ widely in degree of product homogeneity, with, for example, chemicals and rubber forming a single branch and glass forming another on its own.²

8. The recognition given to the 'German' view

Another sign of the changed attitude was that the *Report on the Options* contained the first explicit recognition by official French quarters of the alternative view of collective forecasting commonly referred to as the 'German' view. The relevant section recalled the French view that the real option is not between the Plan and the market economy but between the 'Plan' (or rather the 'projection' underlying the Plan) and 'the plans', or, in other words, between the 'great market study on a national scale' and the separate and independent studies made by a multitude of branches or firms. It observed that France had opted for 'the Plan' and that other

¹ Moreover, it continued to be said in at least some official circles that the projection must be detailed 'if it is to constitute a generalised market study' of wide use. (INSEE, 1966.)

² The 29 are as follows: agriculture and forestry, products of agricultural and food industries, solid mineral fuels, gas, electricity and water, oil and natural gas and car-burants, building materials, glass, iron ore and steel products, non-ferrous minerals and metals, products of first processing and working of metals, non-electrical machinery and equipment, electrical machinery and equipment, motor-vehicles and cycles, naval and aeronautic construction and armaments, chemicals and rubber, textiles, clothing, leather, wood-working, pulp and paper, printing and publishing, plastics products and miscellaneous industries, building and public works, transport, telecommunications, housing service (i.e. rents), other services, trade.

countries were following her example because they shared the view that medium-term projections of this kind played the role of a 'reducer of uncertainty'. And it then went on to say:

In Germany, on the other hand, the idea is often encountered that this uncertainty is such that any centralised effort towards orienting business behaviour presents serious risks of collective error. It is thought that better results will be obtained from a large number of private decisions based on individual judgement than from a deforming projection.

The section concluded by reasserting that the 'reduction of uncertainty is the consequence of the common view of economic development expressed in the generalised market study', that:

the existence of the global projection¹ constitutes a certain protection against the creation of over-large surpluses of productive capacity and must, it would therefore seem, permit the realisation of the same rate of growth more economically, or that is with a smaller total volume of investment . . . [and that] certain studies tend to show that this has actually been the case.²

This wording is very cautious, however, and the rejection of the 'German' view hardly categorical. Moreover, we must again allow for an attachment to some of the phrases that had become part of the special language of French planning and which are difficult to throw off.

9. New areas of quantification

Despite its warnings that the figures contained in the projection must not be taken too seriously, the 5th Plan, as we have seen, put into exact numerical terms some items which the previous Plans had not put in this form. There were two important additions of this kind. The first was a step in the direction of quantifying regional development aims. Thus the *Report on the Options* declared it to be 'desirable and possible' to locate 35-40 per cent of newly-created industrial jobs in the 'underdeveloped' western half of the country. M. Massé commented that this figure was the most uncertain of all in the report.³ It had, however, been proposed earlier on by the Economic and Social Council that the Plan should give precise indications of new jobs and private investment (as well as public) *region by region*.⁴ This proposal had been rejected by M. Massé on grounds of the extreme complexity of combining some 20 sectoral *tranches* with 21 regional *tranches*.

¹ Cf. footnote 1, p. 150.

² *V^e Plan (Options)*, pp. 7 and 42.

³ See his *exposé* before the National Assembly, *Journal officiel*, 25 November, 1964, p. 5,545.

⁴ Conseil économique et social, October 1963.

The second new area of quantification was the 'programming in value'. This contained a projection of the movements between 1965 and 1970 of *relative* prices in four broad sectors,¹ and projections of various 'financial balances'.² One purpose of the projection in terms of value was to meet the criticism that the previous Plans had failed to give any demonstration that the economic system would be in 'financial equilibrium' under the assumption made about the expansion of investment in terms of volume, and that they had therefore lacked 'coherence' in this sense. A second purpose was to provide the basis for an 'incomes policy'.

10. Incomes policy

In France the case for an 'incomes policy' is most frequently based on the insufficiency of savings and the weakness of the capital market which are the consequence of 50 years of inflation. Moderation of the rate of increase in wages in favour of higher profits is said to be necessary to augment the funds available to the firms for self-finance and to permit the investment envisaged by the Plan to be financed without a continuation of the inflationary process. The 5th Plan contained five broad 'guide-lines' for incomes policy³ in what was regarded as a first stage. It was intended that in a second stage the 'programming in value' and the establishment of guide-lines for incomes and prices should be carried out on a more detailed sectoral basis.⁴ The reason given for not proceeding to this more advanced stage at once was that the French statistics concerning past incomes, etc., were not yet good enough.

The incomes policy was described as being purely 'indicative' for the

¹ They were as follows (with the percentage relative price movement in brackets): agriculture (+2.0), industry (-6.0), rents (+32.0), other services (+1.0).

² These are: the balance of payments on current account detailed by item; the savings and investment balance analysed in terms of the net supply and demand for funds by broad groups of economic agents; and the division of gross income (gross domestic production) between broad income categories.

³ The guide-lines referred to the movements in the following items: average wages (in real terms) of those remaining in the same job-category; average wages inclusive of all effects of shifts from lower to higher-paid grades or jobs; the gross income per head of the self-employed outside agriculture; individual farm incomes; and the profit margins of non-agricultural firms. (These margins, it was said, should be reconstituted after their recent decline so as to enable firms to restore the proportion of gross investment financed out of depreciation allowances plus undistributed profits to the estimated 1960 figure of 70 per cent.) A sixth item which ought to have been indicated was the rate of progression in social security benefits and contributions, but this was left in suspense pending the drawing up of a programme for reforming the social security system and dealing with the problems posed by its rapidly growing deficit.

⁴ Pierre Massé, 1964 (2), p. 26.

present. There was no suggestion that employers who raised wages by more than proposed in the Plan should be subject to some form of penalty, such as had been threatened in earlier attempts by the government to regulate wage movements.¹ It was admitted that an 'indicative' incomes policy did not mean much; and it was regretted that circumstances did not yet seem to permit proceeding to the more ambitious stage of 'a contractual incomes policy entailing reciprocal agreements'.²

11. The formalism of the 'new look'

If we disregard this possibility along with that of 'contractual' planning more generally, it may seem paradoxical that the authorities were aiming at increasing the detail of the projection in terms of value at the same time as they were admitting that the projection in terms of volume should not be taken very seriously, and warning that predictions were even more difficult to make for the 'financial circuits'. One may be inclined to conclude that the only purpose served would be to make sure that everything was in order or 'coherent' from a purely formal, intellectual point of view.

Some of the other features of the new look appear equally formalistic if we recall the definition of 'targets' and the notion of the conditionality of their 'defence', the specification that even the target for the largest aggregate (the overall growth rate) must be regarded as mobile between wide limits, and the weak grounds given for claiming that the 'projection' is useful to business men despite the acknowledged unreliability of most parts of it. These features serve to qualify the significance of the Plan's figures to such an extent that it will in no circumstances be possible to say five years later that the Plan has not been carried out. The non-committal and elusive character of the new definitions sprang from an attempt to combine two incompatible aims. One was to remove the earlier misconceptions created by what was recognised to have been an over-estimation of the potentialities of centralised forecasting, and the other was to stop short of explicitly declaring that there was no Plan—in the sense of a National Plan for the whole economy.

Nevertheless, it is undeniable that, according to the new theory, French planning could not, even conceptually, lay claim to the title of central planning of the whole economy. We may perhaps say that it had reverted to that state of illegitimacy as regards this title in which it had been some ten years earlier, and from which M. Massé's original 'logic of the Plan'

¹ As, for example, in the 'government letter' addressed to employers in March 1961, and referred to above, p. 32.

² *V^e Plan, Rapport général*, Chapter I.

seemed to have succeeded for a while in rescuing it. Its real title was described for us in the *Report on the Options* of the 5th Plan.

12. Towards the conception of the plan as medium-term economic policy

The *Report* remarks that the Plan is in one respect less than the projection, since the projection comprises, in addition to certain objectives with a 'distinctly normative character' (i.e. 'targets'), many forecasts of a 'purely indicative character', but that in another respect it is more than the projection because 'it is the definition and illustration of a medium-term economic policy', not all of which can be reduced to targets drawn from the projection.¹ In other words, there are objectives that can be, or are, put only in qualitative terms, as well as those that can be, and are, put in quantitative terms. The *Report* went on to say that the part of the Plan consisting of such medium-term policy recommendations, though external to the other part, that is, the targets contained in the projection, is no less essential since it indicates the methods by which the government intends to promote the realisation of those targets.

Now it is conceivable that in future the tendency might be for the authorities increasingly to play down the importance of the one part of the Plan (the projection) and to play up the other (the general economic policy measures). The 'global projection' might continue to be made, but perhaps only as a basis for framing the general economic policy measures and for drawing up the 'Plan of the State' (for the public sector), thus being relegated to the place which many believe to be its only place.² The definition of the Plan as 'medium-term economy policy' would not, of course, carry any implication *a priori* of whether it should be more or less interventionist than at various periods in the past. Indeed, as noted in Chapter IV, after the idea of something like 'non-interventionist' planning (or a self-implementing Plan) had been practically abandoned by the father of this idea, there were signs in 1965-66 that French planning might be moving towards more, and new forms of, government control over business. Just as previously the idea of 'non-interventionist' planning had risen with the gradual decline of interventionist planning, so now the latter seemed to be returning to favour as belief in the former was given up.

¹ As examples, the recommendations concerning the following matters were cited: structural reforms among firms and farms (modernisation, concentration, conversion); the development of technical and other higher education, and labour training and re-training; the price policy necessary to restore 'price verity' in certain sectors (public services, rents); the encouragement of research; credit, tax and incomes policies, and measures for raising the level of savings and strengthening the long-term capital market.

² Above, p. 147.

XVI 'Modern Capitalism'

1. The dissatisfaction with indicative planning

By the time the 4th Plan was launched it was clear that a sharp division of opinion existed about what 'French-style' planning meant, or ought to mean. Opposed to the official view, or more exactly to that of M. Massé, some favoured the re-introduction of a style of planning with more rigorous methods of implementation. Over the next few years the 'authentic planners', as they sometimes called themselves, became increasingly critical of the government's policy which they saw as 'dismantling French planning by systematically destroying the means of intervention by the state in the economy' or as 'reducing French planning to mere forecasting'. This group also regarded the 'new look' announced by M. Massé in 1964 as being far too non-committal.¹

In what follows the expression 'authentic planners' will be used as a convenient collective label for a number of groups holding a variety of ideas on the proper purposes and methods of government intervention in the economy. Only brief reference can be made here to some of these ideas which come largely from people who do not want to replace capitalism by 'traditional' socialism (based on collective ownership of the means of production), but who advocate a form of 'modern capitalism' or 'modern socialism' (the two terms being virtually interchangeable) which would, they say, represent no more than a further evolution of the 'mixed' economic system which 'western' countries have long had. These people specifically wish to retain in the new mixed system such features of the old as the decentralisation of decisions, freedom of enterprise and market mechanisms. They speak in this connection of the 'dynamism' of capitalism and of the 'indispensable function of guiding' performed by the market.

2. Areas and methods of intervention

Many of the authentic planners contend that 'real' central planning necessarily requires government intervention at the sectoral level which

¹ For example, Conseil économique et social, October 1964.

M. Massé had, after some hesitation, finally rejected. There are various theories about where and for what purposes such sectoral intervention should take place. One sees the object as that of achieving a 'better selection of investments' but acknowledges the as yet unresolved difficulty of defining the investment criteria that should replace the present ones.¹ A second theory looks to sectoral intervention to induce 'more sensible' consumer behaviour leading to the satisfaction of 'essential' rather than 'inessential' wants, or as a way of 'correcting' the interference of producers with consumers' choice through aggressive advertising, the creation of fashions, and so on. A third theory holds that certain branches of industry should be given preferential treatment because of the 'motive force' they exert in pulling the whole economy forward in a general expansion process. Under the Monnet Plan this role had been attributed to the 'basic' industries. Today it is attributed, following suggestions made by Professor Perroux,² to the 'modern' and the 'entirely new' industries. A fourth theory of sectoral intervention refers to the role of the Plan in coordinating the activities of economic agents in the various sectors; it holds that adequate coordination cannot come from the automatic, non-interventionist process assumed by M. Massé's original 'logic of the Plan', but requires deliberate action by the planning authorities towards enforcing targets in some if not all sectors. This idea is now chiefly advocated by those who expect the future to bring increasingly good if not perfect forecasting.³

Although the majority of authentic planners wish to keep the instrumentation of the Plan 'soft', there are again various interpretations of what is allowed under this head. One group holds that reliance should be placed primarily on fiscal and financial incentives and disincentives, or what they call for short the 'tax-subsidy' method, of which they would, however, make much more vigorous use than was done in the past. Another group favours, still under the name of 'soft' planning, more or less complete control over the means of finance, and some of this group would extend control to the use private firms make of undistributed profits. Yet another suggestion is that the state-as-entrepreneur should 'step into the breach' and operate alongside, or in the place of, private enterprise in any sector or locality where it is 'failing to do its job' as conceived by the Plan.⁴ Indeed, one view is that there ought not to be any rigid demarcation between the public and private sectors, that the state should always be

¹ Julien Ensemble (collective pseudonym), 1965.

² François Perroux, 1962, pp. 76 and 82; and 1965, p. 220.

³ For example, Maurice Duverger, 1964, pp. 363 ff.; and 1965.

⁴ François Bloch-Lainé, 1963. (M. Bloch-Lainé was for many years head of the Caisse des Dépôts mentioned on p. 26n.)

free, using more flexible procedures than were often required in the past, to extend public enterprise to (or within) any branch not already entirely nationalised. It might do so by nationalising private firms singly or in groups, by entering into partnership with private firms (either temporarily or permanently as minority or majority shareholder), or by creating new public enterprises. M. François Bloch-Lainé, one of the leading figures in France's post-war movement for economic and social reform, has proposed yet another variant: that private firms should be classified according to their 'importance for the collectivity' (i.e. for the achievement of the aims of the Plan) and that firms high up in the hierarchy should be granted favours by the public authorities to help them achieve those aims, but should also be subject to close supervision by the authorities to see that they keep to their part of the bargain.

3. The concerted economy

Some of the most novel proposals for improving the capitalist system are, however, offshoots of the 'concerted economy'. This term was first used by M. Jean Monnet during the early preparatory stages of the 1st Plan to describe the 'spirit of the Plan' which lay in its 'association of all the economic and social forces of the country in a common effort'.¹ The term came into more general use following the publication in 1959 of a pamphlet by M. Bloch-Lainé which defined the concerted economy as follows:

It is a *régime* in which the representatives of the state . . . and of business . . . meet in organised fashion to exchange information, to compare forecasts of the future, sometimes to take decisions in unison, and sometimes to formulate recommendations to be passed on to the government. It is a *régime* in which the principal options in matters of investment, production and exchange do not entirely depend on the heads of business or on the public departments in their respective spheres, but proceed from a permanent collaboration, so that there are not two series of autonomous and separate acts with no link between them, corresponding to the division between the public sector and the private sector.²

M. Bloch-Lainé went on to say that the notion of the concerted economy was capable of tempering what he called the 'vain quarrel' between the liberals and dirigists.

In his definition, M. Bloch-Lainé referred to the 'concert' as existing

¹ The Text of the Plan explicitly denied that the concerted economy had anything to do with corporativism, which had then fallen into disrepute even among some of its former French advocates because of its recent association with political totalitarianism in other countries, and because France's own Vichy government had been partial to it.

² *Op. cit.*, pp. 5-6.

between two parties, the public authorities and business. Labour was not yet included, but it is widely hoped that from the present beginnings will develop a form of economic organisation in which incomes and other key magnitudes are determined by discussion between the various group-interests, or 'live forces of the nation' (to use a now-fashionable expression), and between these and the state. Another name for this procedure is the 'permanent social dialogue'. To the same context belongs the idea that one of the dimensions of modern man's conception of 'democracy' and 'freedom' is his 'participation in economic decision-making'.¹ This idea was being increasingly aired in the 1960s and was given an important place in a recent declaration of the French Episcopate² which recommended that 'all who in various capacities take part in economic activity' should participate also in the decision-making, and that this should apply especially 'at the level of the firm, but also at other levels, branch, regional, national and international'.

4. The reform of private enterprise

Two more specific proposals for introducing democracy into the firm may be mentioned. The first is that advanced by M. Bloch-Lainé in a book published in 1963. He contends that in an economic democracy the boards of directors of the large firms at least should be accountable not only to their shareholders but also to two other parties: the people they employ and the 'collectivity' represented by the public authorities (or 'the Plan'). Accordingly, he proposes a 'new constitution' for the firm to give it a 'real government' deriving its authority from a consensus of all three parties and rendering accounts to them. The features of this constitution would include a 'commission of overseers' representing all the three parties and replacing the old shareholders' meeting; recognition of the right of employees (through representatives elected either by them directly or by their trade unions) to 'participate in the firm's acts' while 'remaining free to contest those acts'; and an 'economic and social magistrature' or council of 'wise men' to give its views on such matters as disputes about the division of power in the firm or claims for breach of the contracts or quasi-contracts which would be concluded between the public authorities and the firms.³

¹ Cf., for example, Pierre Mendès-France, 1962, p. 117, quoting a statement made at a meeting of the Centre des Jeunes Patrons (Young Employers' Centre).

² *Reflections on the Present Economic and Social Situation*, published in March 1966 as a declaration of the French Episcopal Commission for Charitable and Social Action, with the approval of the French Episcopate.

³ Below, p. 172.

Possible objections to his scheme are anticipated and rebutted by M. Bloch-Lainé. He acknowledges that an essential condition for the efficiency of the firm is its 'unity of direction' but denies that this unity need be lost by placing the firm under the plurality of controls he suggests. He dismisses as equally unwarranted the fear that constant intervention by the magistrature in the firm's affairs might create a situation in which it was perpetually on trial, to the detriment again of its efficiency. It is simply a matter, he says, of seeing that the amount of 'contestation' is kept within the appropriate limits, and that the publicity given to each case is kept just right. This publicity, or the 'threat which it constitutes', would be relied on to make the magistrature's judgements effective, and its volume would have to be neither so large as to do pointless harm to firms or persons, nor so small as to render the magistrates' intervention vain.

The second specific proposal came from M. Marcel Loichot¹ and was for some time the centre of attention as a possible means of implementing the promise made by the government (in the so-called 'Vallon amendment'² of 1965) to pass legislation defining the ways in which the 'rights of employees over the increase in the assets of firms due to self-finance [undistributed profits] should be recognised and guaranteed'. The question of the ownership of these assets inevitably arose, as M. Massé had said, once an 'incomes policy' was pursued.³ M. Loichot's scheme, which met with an enthusiastic reception from a number of parliamentarians and well-known academics, and even from some industrialists, would have implied⁴ that a firm's employees would in the course of time (perhaps in a generation, but the sooner the more 'dynamic' was the firm and the higher therefore its profits) obtain the power of decision and control by virtue of the acquisition of the majority of the shares.

M. Bloch-Lainé and other reformists propose (even without assuming any shift in ownership such as envisaged by M. Loichot) that the rules of management of private enterprise should be altered. The firm should not, they say, be guided in the conduct of business by a mere concern for profit. It has a 'public destiny' of which the state should be continually reminding it, and the head of the firm should be chosen partly with an eye to his

¹ Marcel Loichot, 1966.

² Named after its proposer, M. Louis Vallon, a member of the left wing of the Gaullist Party. It was inserted in the Law of July 1965 reforming the taxation of companies and income from securities.

³ Pierre Massé, 1964 (2).

⁴ In the summer of 1967, a much milder formula was chosen which was not destined to lead to the 'reform of the firm'.

suitability for this 'public dimension' of his office.¹ The nature and extent of the 'public duty' is not, however, exactly defined (or perhaps definable) and cannot therefore be compared with the traditional kind of 'public duty' that is translatable into precise commercial terms, such as a particular tax burden. On the other hand, firms might be denounced by 'wise men' for failing to fulfil this new kind of duty, and the penalty for those found guilty might be bad publicity or even nationalisation. They would evidently be exposed to an incalculable risk from this source, unless they got their plans endorsed by the authorities in advance.

The problem posed by this notion of the 'public duty' of the private firm may be seen from another viewpoint. It has long been acknowledged that the free-enterprise system, based on decentralised decisions, works satisfactorily only because each separate decision-maker (firm) follows rules of management (based primarily on the pursuit of profit) which are within fairly narrow limits common to all. The establishment of a 'new business morality' that implied the relegation of profit to a secondary role and its partial replacement by an ill-defined concept of 'public duty' would break the mainspring of the mechanism on which that system depends for its successful functioning. It would mean that individual firms could no longer form those 'reasonably reliable estimates' regarding the conduct of competitors which are a condition for making rational investment decisions.² Presumably some way would have to be found of filling the void thus created, and the only way would seem to be the regulation of all firms' activities from the centre, or 'corporative planning'.

5. The contractual economy

Many 'authentic planners' see the alternative to both 'indicative' and 'imperative' planning in procedures which are an extension of those of the concerted economy. This alternative is the 'contractual economy' with 'contractual planning', implying the signing at the beginning of the Plan of medium-term contracts or quasi-contracts. Here again we are offered something 'intermediate between the liberal economy and dirigism', a way out of a 'false dilemma', and a means of closing an 'old ideological issue'.³

¹ François Bloch-Lainé, 1963, pp. 23 and 129; and *Jeune Patron* (review of the Young Employers' Centre), November 1964, article entitled 'Projet d'une réforme de l'entreprise'. See also paragraphs in the French Catholic Episcopal Declaration of 1966, and in Pope Paul VI's Encyclical *Populorum progressio* of 1967, rejecting the notion of profit as the primary motive force of economic progress.

² Above, p. 131.

³ For example, François Bloch-Lainé, 1963, p. 131; André Piettre, 1963; Raymond Boisdé, 1964; and Julien Ensemble, *op. cit.*, pp. 113-14.

Two aspects of the new contractual system which should be especially noticed are the kind of contractual engagement involved and the matters covered by that kind of contract.

Under the first head there would be four innovations. *First*, collective contracts would in many instances be substituted for the present individual contracts, and minorities thus be compelled to submit to the decision of the majority whose approval would alone be the test of 'voluntariness' of the obligations undertaken. *Secondly*, many of the collective contracts would be solicited and endorsed by the state, and to many of them it would be a party. Contracts signed by it with firms or groups of firms, and sometimes also with labour (particularly in connection with 'incomes policy'), would grant favours in return for their assumption of obligations prescribed by the Plan, and would be the means of rendering submission to the disciplines of the Plan 'voluntary'. *Thirdly*, the contracts would run for a longer period (usually that covered by the Plan) than has generally been covered by contracts (whether individual or collective) in the past. In recognition of the impossibility of achieving perfect forecasting, however, the contracts might in many cases be regarded as only conditionally binding, or as subject to revision in the light of re-assessments of the situation.¹ *Fourthly*, many contracts would (again in the absence of perfect forecasting) not be at all precise about either their terms or the conditions under which they were enforceable. Their juridical nature would thus be vague. Some of the protagonists of the contractual economy look for a solution to this problem in the institution of an 'economic and social magistrature' that would pass sentences which though not legally enforceable would exert an effect through 'persuasion' or the threat of unfavourable publicity. Thus obligations which were not strictly definable would be matched by sanctions which were likewise not strictly definable.

Under the second head, it is envisaged that there would eventually emerge a system in which practically all economic activities and relationships would be covered by the new contractual *régime*. In the words of M. Raymond Boisdé, there would be a

network of contracts . . . freely entered into . . . between producers and traders, between economic units and government departments, between suppliers and customers, between employers and workers, between individuals and groups, between trade associations, trade unions, etc.²

A start towards extending the network was made with the contracts and

¹ Julien Ensemble, *op. cit.*, p. 114.

² Raymond Boisdé, *op. cit.*, pp. 173-4. M. Boisdé is a well-known politician (member of the Independent Republican Party).

quasi-contracts between government and business mentioned in Chapter IV. Especially noteworthy are the 'programme contracts' which were introduced in 1966, and in which the 'consideration' given by the government was 'price freedom', and the Steel Convention signed the same year. 'Incomes policy' was another sphere where it was hoped that the procedures of the 'contractual economy' would soon make progress.¹ Yet another was agriculture. In 1962 the government undertook to define in a subsequent law the principles of a 'contractual system linking producers, processors and purchasers of agricultural products'. Such a law 'tending', as it cautiously said, to define such principles was passed in the summer of 1964.² By 1967 little progress had been made towards the introduction of such a contractual system. It had, however, been recognised by the law of 1962 that the adoption of the system would have to take place, if at all, in agreement with France's partners in the European Economic Community.

6. The extinction of private risk capital

We come now to a final aspect of the proposed reforms. One of their consequences would be to transform the rights of shareholders to an extent that would seriously weaken, if not destroy, the equity market as a source of capital. Professor Piettre, one of the advocates of the 'contractual economy', has explicitly proposed that in big companies shareholders should be eliminated altogether and the status of the present ones be converted into debenture holders.³ Given the non-contractual character of income from equity shares, it seems indisputable that they would have no place in the 'contractual economy'. Moreover, some of the reformists aim, as we have seen, at making the uses to which private property should be put a matter for determination by a plurality of decision-makers, some internal and some external to the firm, in accordance with a new principle of 'universal participation' in economic decision-making. This principle seems to imply a form of ownership of the means of production that is neither strictly private nor strictly collective, but something vaguely in between.

It appears likely that, if these proposals were put into effect, the savings-investment mechanism which is typical of the market economy, and which

¹ Above, p. 164.

² The two laws are entitled the *Loi d'orientation agricole* and the *Loi complémentaire d'orientation agricole*.

³ André Piettre, letter to the review *Jeune Patron*, December 1962 (cited by Auguste Herriau, 1964).

has already been sorely tried by inflation and taxation, would be dealt its final blow. Its function of allocating savings between activities associated with different degrees of risk and between firms with dissimilar management records, etc., would then have to be performed by some other mechanism, presumably the direction of investment by the central planning authority. As we have seen, many of the 'authentic planners' believe that investment decisions ought in any case to be subject to such central control, and they are here again joined by the highest officers of the French Catholic Church.¹ What might ultimately emerge is a system in which at least for the big industries the 'collectivity', or 'state shareholder', assumed all the investment risks and took the profits and losses, private risk-capital having been abolished.

Another aspect of the problem is the effect which the new arrangements on the capital and credit markets would most probably have in diminishing the supply of voluntary savings by narrowing the choice of types of financial investment available to the saver. In the end the choice might be reduced to government bonds or bank deposits. This side of the problem would presumably have to be solved by some form of compulsory saving, though it might be called 'voluntary' in the special meaning given to this term in the 'contractual economy'. As was once proposed by M. Chalandon, it might be made a 'national duty to save', just as in earlier days it became a national duty to pay taxes.²

7. Summary

One way of characterising the proposed new 'mixed system' is as a system in which the public authorities would be omnipresent in the world of business. We have noted four forms in which the state might be present in 'private' business: *first*, by acting, in the name of 'the Plan', as virtual controller of the activities of at least the big companies in the main sectors; *secondly*, by being represented on the 'commissions of overseers' set up in the larger firms as part of their 'democratic government'; *thirdly*, by becoming a party to numerous contracts signed with management and sometimes labour at the level of the branch and/or the firm; and *fourthly*, by playing the role of an 'economic magistrature' which would pronounce on whether individual firms were doing their public duty, keeping to their contractual or quasi-contractual arrangements with the authorities,

¹ Cf. para. 29 of the French Episcopal Declaration mentioned in footnote 2, p. 169.

² Albert Chalandon (former General Secretary of the Gaullist Party), *Le Monde*, 4 July, 1964.

etc., and act as moderator where the 'unity of direction' of the firm was threatened by its 'democratic government'.

Another way of summing up the proposed reforms is to say that they aim to introduce into private enterprise three features which many people in France, as elsewhere, regard as undesirable but probably unavoidable characteristics of public enterprise, namely its frequent departure from strictly commercial rules of management, interference in its management by parliament, ministers and the bureaucratic machinery of the state, and its heavy reliance on loan capital. Whilst some are searching for ways of making public enterprise more similar to private in these respects, others seek to create parity between the two in the opposite direction.

It may be that many heads of firms faced with such new arrangements would deliberately solicit nationalisation as an escape from an ambiguous situation, preferring to be fully under state control rather than semi-nationalised. In that event, private enterprise might be accused of 'resigning' from its functions and making inevitable its replacement by public enterprise.

Leaving aside this eventuality, we have also concluded that the proposed 'modern capitalism' could be tolerably efficient as a form of economic organisation only if it were based on corporative planning, a condition more or less explicitly stated by some of the reformists. This means that the new 'mixed' economy would after all be one which was strictly directed from the centre, and in which 'private' firms would play the role essentially of units to which the central authorities delegated the task of carrying out the National Plan, though there might be a limited degree of 'functional' decentralisation of the decision-making power and a correspondingly limited scope for the exercise of individual initiative and the play of market mechanisms.

In France the aspiration towards voluntary corporativism has a long tradition,¹ and numerous observers of the contemporary French scene have pointed to the strong neo-corporative tendencies.² Corporativism, however, was long regarded as a form of capitalism devoid of that dynamism which the 'modernisers' expressly want to preserve. And it is still so regarded by its present-day opponents.

¹ The Saint-Simonians' scheme for central planning of the economy had presupposed a corporative set-up and what would to-day be called a 'voluntary incomes policy'. In the last two decades of the nineteenth century there was a strong neo-corporativist movement, backed by two Papal Encyclicals, among the group calling themselves Social Catholics. Another neo-corporativist movement, not explicitly bound up with a religious creed, flourished in the 1930s.

² For example, Maurice Allais, 1964.

8. Sources of support for the new ideas

A few words must be added about the sources of support in France for the ideas examined in sections 3 to 6 of this Chapter. As M. Bloch-Lainé said, many of these ideas were 'in the air' when he wrote his now famous book. They have since attracted advocates in many quarters, some of whom have been very active propagandists for them. The groups and individuals concerned include the Catholic Church, part of the influential Jean-Moulin Club,¹ the militants of the Young Employers' Centre (Centre des Jeunes Patrons), and a number of well-known politicians, public officials, academics, journalists and trade unionists (the last usually expressing some reservations).

Nevertheless, we must treat with scepticism the claim by the propagandists that some thousands of the 'more progressive' heads of firms are with them in believing that it is perfectly feasible for private enterprise to be run in the way proposed without being deprived of its essential characteristics, or in effect placing it in the hands of the state.² Even so, it is a matter for serious reflection that that part of the French business world—and it is doubtless the major part—which holds 'conservative' views on how far it is possible to go in 'reforming' the private enterprise system without virtually destroying it, has been shy of publicly defending those views. There are probably several reasons for this reticence. One is what Professor Daniel Villey has called the 'corrupting influence' on industrialists of the 'favours' accorded them by the state under French planning.³ Another is the 'paralysing suspicion', to use the words of M. Chalandon, with which the conception of profit as the motive force of enterprise is still widely regarded in France.⁴ Still another reason may be that some industrialists have already reconciled themselves to the kind of forced resignation mentioned earlier. Finally, there are doubtless some industrialists who believe, rightly or wrongly, that the proposed 'reforms' herald a welcome return to the easier ways—free from strong competitive pressures and made safe by state paternalism—which had characterised much of French industry in earlier days and from which since the war there had been a departure. In other words, these 'reforms' may be seen not as something radically new but as a return to something old, to which I shall refer again in the next Chapter.

¹ This is a political club which is reported to have several hundred members drawn from the upper ranks of the Civil Service, the managerial staffs of firms, trade unions, the universities, journalism, etc. Publications written by groups of the members are generally signed with collective pseudonyms.

² Auguste Herriau, 1964.

³ Daniel Villey, 1964.

⁴ Albert Chalandon, *Le Monde*, 5 March, 1965.

It is noteworthy that when, in January 1965, the senior French Employers' Association the (CNPF) at last reacted to these new ideas with a declaration setting forth the classical view about the way the free enterprise system works, it encountered some dissension within its ranks as well as a cold reception almost everywhere else.

XVII 'Classical Capitalism'

1. The quality of management as a factor in industrial development

Today in France many people in business and other circles believe that if the term 'French planning' continues to be used it should not mean anything more than the rational planning by the state of the public sector and the formulation of general economic policy measures of a forward-looking but essentially neo-liberal kind, and that official forecasting should play only a very limited role similar to that envisaged in Chapter XIII.¹ These people also hold views that are sharply opposed to those presented in Chapter XVI about the direction in which French capitalism should now be moving.² Such views bring us to a factor that is often cited in France to explain her highly creditable economic performance during the last two decades.

In France, perhaps more than elsewhere in recent years, attention has been drawn to the importance for economic development of attitudes to business—on the part of the public, the government, and *not least* of business itself. Many French observers maintain that the attitudes once prevalent in their country and deeply rooted in its cultural heritage³ had long been a source of low efficiency and a lack of dynamism compared with standards in other advanced industrial countries. They point out that before the Second World War relatively few French firms had adopted the forms of business management typical in those other countries, and reaching their fullest development in the United States; or, in other words, that the major part of French industry had not, until recently at least, reached

¹ See, for example, the position taken by the French Employers' Association (CNPF) in its monthly review *Patronat français*, December 1967.

² Even within the Jean Moulin Club there appears to be a cleavage of opinion. One group, again calling themselves 'modern socialists', has very moderate ideas about the kind of 'reform of the firm' that is desirable. They look forward to the imitation in France of the chummier relationship between employer and employee which exists in the United States. See Claude Bruclain (collective pseudonym), 1965, pp. 91–3. The economic programme of these 'modern socialists' is, however, very similar to that of many 'neo-liberals'.

³ They mention Colbertism and social catholicism, but also Cartesianism. It has now become fairly common to blame the 'Cartesian method', long a revered feature of French education, for producing attitudes of mind that favoured order rather than change.

the stage of 'classical' capitalism which the advocates of the 'modern' capitalism described in the previous Chapter now seek to go beyond.

A well-known management consultant, M. Octave G  linier, has depicted some of the traits, slightly caricatured as he admits, which distinguished the business methods of the 'traditional' French firm before the Second World War from those of American-style 'modern management' in the following terms.¹ Profit was an important criterion for business decisions but not the sovereign one,² the emphasis being placed on stability rather than on efficiency and profitability. The staff structure was hierarchical, each level constituting a social caste difficult to enter from the one below, with the result that appointments and promotions took too little account of efficiency and performance. Decisions were over-centralised and management gave small encouragement to initiative on the part of subordinates. Security of employment was assured to 'loyal' subordinates, especially among the 'white-collared' staff, but often also among the skilled grades of the 'blue-collared'. Branch agreements and state protection were sought in preference to competition, which was often regarded as 'unhealthy'. Adaptability to change was slow and in many cases took place only under very strong pressure such as continual losses or the threat of bankruptcy. The situation might be summed up by saying that the primary aim was a quiet life, especially for the management and the upper supervisory staff.

2. The spread of 'modern management'

Since the war a number of factors have helped to bring about a change in attitudes. One was the shock of the military catastrophe in 1940 which brought home to the French public the penalties of economic weakness and technical backwardness. Immediately after the Liberation, the watchword in French industry became 'modernisation'. One of the purposes of the 'Modernisation Commissions' of the Plan was to persuade heads of firms

¹ Octave G  linier, 1966. The account given in the text above is a very much abbreviated version of M. G  linier's description.

² Students of business behaviour in the United States have pointed to the many American firms that follow (quite properly as some would contend) criteria other than those which are generally assumed by the economic theorist and which are taken by Octave G  linier to be typical of American-style 'modern management'. For example, they have referred to firms that aim primarily at maximising not profit but gross sales revenue. The view of M. G  linier is that *good* management implies that the profit criterion *is* 'sovereign', and that firms should be encouraged to make it such in the interests of general economic efficiency and expansion.

to use more rigorous criteria in making their business decisions, to undertake the structural reforms necessary to eliminate excessive smallness of producing units, and so on. And in the early 1950s numerous 'productivity missions' went to the United States to study business organisation. A later factor driving more firms towards 'modern management' was France's new trade policy (connected especially, but not exclusively, with her membership of the European Common Market), which gradually removed much of the protection her industry had enjoyed from foreign competition. And, at least after 1963, French industry was repeatedly warned that it must learn to live without a second source of assistance, namely inflation, which had previously lightened its debt burden. Another important influence was the contact with American entrepreneurship that had 'immigrated' into France and other parts of Europe. Surprise and sometimes disapproval have been expressed at the 'ruthlessness' and profit-consciousness of American business behaviour compared with French; but there has also been a growing recognition that American business methods are a pre-condition of American income levels.

Many people in close contact with French industry have remarked that during the last 15 years or so a growing proportion of French firms, especially in the medium-size category and not always newly-established, could be counted among the ranks of the well-managed. They regard this progress as one of the most important causes of the continual increase in the average productivity of capital and labour to which the statistics testify.¹ They add, however, that despite this progress plenty of room remains in many French firms both for organisational improvements and for the fuller development of the 'entrepreneurial, or capitalist, spirit'.²

3. Forwards or backwards?

These people believe that the process of spreading the kind of 'modern management' which goes with 'classical' capitalism ought to continue in French industry and needs to be accompanied by a rehabilitation in the public mind of the notion of profit (instead of its denigration) and by better guarantees of the rights of the shareholder (rather than their dilution). They are aware, however, of a number of tendencies in current economic policy and thought in France which could arrest further progress in this

¹ It is not intended to imply that there can exist any 'model' which allows us to determine how much of the increase in average productivity per head in industry was due to better management rather than other factors such as capital accumulation, technical progress, the Plan, or, as Professor Alfred Sauvy would add, the larger proportion of young people in the population.

² Cf. the remarks to this effect in the business review *Entreprise*, 12 September, 1964.

direction and even cause part of French industry to sink back into the 'immobilism' from which it had but recently been stirred.

As it seemed to be shaping up in the mid-1960s, French economic policy presented three partly inter-dependent dangers from this point of view. The first was that of an over-emphasis on 'gigantism'. A declared aim of the 5th Plan is to reduce most major sectors of French industry to a very few large firms or groups (*often only one or two*) with the intention of putting them in a better position to confront their foreign competitors. This aim has many critics¹ who, whilst not denying that many of the units in French industry are still excessively small, insist that the decisive element in business efficiency and competitiveness is not mere size but the quality and commercial-mindedness of the management, and who point out that among the French firms which are today among the most efficient and competitive internationally are many of small or medium size. The second danger was that a new form of protectionism based on the principle of 'concertation' between government and business might take the place of the old based on tariffs, and that, for example, the Steel Convention of 1966 might become a model for extension to other sectors. The third danger was that in this and other contexts firms might be increasingly subjected to external bureaucratic controls which would deprive them of the freedom of action necessary for dynamism.

Some of these critics of present trends draw attention to a growing tendency for the large firms to appoint to senior executive positions technocrats drawn from the upper ranks of the Civil Service, in preference to career business men, essentially because these 'defrocked' civil servants (to use M. Bloch-Lainé's expression) 'know their way about' the ministries. This qualification appears to be more and more regarded as indispensable because of the importance for some branches of government departments and nationalised enterprises as customers, and because of the new case-by-case (or so-called 'flexible') methods of government intervention in the economy. Critics see this development as highly undesirable both because of the tendency for the former civil servants to infect the firms they join with over-bureaucratisation and a lack of concern with profit,² and because

¹ For example, Henri Taboulet, 1965, Octave Gélénier, *op. cit.*, and Conseil économique et social, January 1967. See also the two remarkable articles by Henri Denamur (an expert on business organisation), 1967, discussing the average 'quality' of French industrial management and the deleterious effects upon it of the expansion of the public sector and of other post-war forms of state intervention in the economy.

² Cf. Octave Gélénier, *op. cit.*, pp. 105-6; and Henri Denamur, *loc. cit.* The latter remarks also that 'whereas the career business man concentrates his efforts on the "product", so as to offer it with all the attributes likely to win favour on the market, the technocrat remains a "public relations" man . . .'

it jeopardises the vitally important 'separation of functions between the industrial and political worlds'.¹

The extension, which the critics fear, of this semi-fusion between government and business to the larger part of French industry would clearly be facilitated by the reduction at which the government aims of each major sector to a very few large firms. The result might be the gradual introduction, through the back door so to speak, of some of the most important of the 'new' ideas that go under the name of 'modern capitalism', or the new 'mixed system' (such as the 'presence' of the public authorities in most 'private' firms, their management by people who are neither strictly public servants nor strictly business men but something in between, and the rejection of profitability as the dominant criterion of business decisions). The triumph by this or other means of such ideas would wipe out the progress recently made towards 'modern management', or even reduce the average quality of management to a lower level than that which formerly prevailed in French industry and which, in the view of the people referred to in this Chapter, had been responsible for much of France's earlier comparative economic weakness.

¹ Cf. Henri Denamur, *loc. cit.*

XVIII Some Conclusions

This book has pointed to the many different conceptions of what is meant by 'French-style' planning. It has been primarily concerned, however, with the rise and fall, within a period of some ten years, of one such conception and with the rise, in the latter part of that period, of another.

The first conception was 'indicative' planning, of which the 'instrument' was a detailed projection of economic development over the period of the Plan obtained by 'market research on a national scale'. M. Massé's theory, on which this conception was based, and according to which centralised forecasting 'coordinated' all economic activities, thus constituting a form of (integral) central planning of the economy, was not verified by experience under three successive Plans (the 2nd to the 4th). In the middle of the 1960s, the theory was so reformulated by its author as to be deprived of most of its substance. By the time the 5th Plan was launched the notion of 'indicative' planning, in the sense in which it had come to be understood not only in France but also abroad, had to all intents and purposes been officially dropped in its native country, even if a certain amount of verbal homage continued to be paid to it.

A large part of this book has been devoted to M. Massé's theory, or what he described as the 'logic of the Plan', in its original form, and has advanced reasons for thinking this theory not logically valid as a demonstration of the need for 'indicative' planning or centralised forecasting in a competitive free-enterprise system or market economy. These reasons are rooted in the dependence of this kind of economic system on uncertainty, and more particularly on uncertainty's natural concomitant of non-uniformity of expectations, implying the lack of that 'common view of the future' at which centralised forecasting aims. M. Massé's efforts to reconcile central planning with the market economy, even if they were bound (as I have argued) to fail in this purpose, had the merit of drawing attention to the importance of making this dependence more explicit than had been done by many advocates of the market economy in the past.

The need which the authorities saw on the eve of the 5th Plan for a radical reformulation of the significance of 'indicative' planning seemed to imply an admission that such planning had not exerted the 'coordinating' role, making for high efficiency of investments and a high overall growth rate,

with which it had been credited earlier, and the supposed existence of which had in 1960–62 helped persuade economists and politicians in a number of countries of the desirability of following France's example.

I have concluded, on both empirical and logical grounds, that French planning never had worked in France—nor could have worked there or anywhere else—as a largely 'non-interventionist' form of integral central planning. It had always worked only as partial and interventionist planning. As such it had been not dissimilar, if we disregard a special attachment to price controls and certain specially French *techniques* of intervention, from that engaged in by other 'western' countries. And doubtless its effects on economic growth were not all positive in the French case any more than in others. France's high average rate of economic growth over the past 15 years or more must have been the product of many factors; but if we are trying to distinguish those that were not common, or not in like degree, to other countries, we may perhaps give first place to the steady improvement (from a relatively low level) in the average quality of management in French industry. Although this may have owed something, especially in the early years, to 'the Plan' in a 'secondary aspect' (the pedagogical one), it was mainly due to other independent causes, such as the spread of American ideas about management and the increased exposure of French industry to foreign competition.

The second conception of French planning discussed in this book explicitly rejects 'indicative' planning (even assuming it can exist) in favour of a more interventionist kind which, however, preserves its 'French style' by virtue of using special techniques of intervention, called 'soft', and commended for their avoidance of coercion and authoritarianism. In the mid-1960s the 'soft' technique which seemed to be increasingly favoured by the government was that of contractual, or quasi-contractual, arrangements negotiated by the public authorities with firms or groups of firms. Many French planners wish to see this technique used still more extensively in the future as the instrument of a 'modern' planned capitalism based on a 'close association between the state and private enterprise'.¹ This is a theme with numerous variants, almost all of which point, however, to corporativism as the form of economic organisation that would ultimately emerge.

France was only one of a number of 'western' countries where in the first half of the 1960s there appeared to be a growing tendency to regard corporativism (combined perhaps with an extension of the sphere of public enterprise) as either the desirable or the inevitable economic system

¹ This is M. Albert Chalandon's phrase. (*Le Monde*, 2–3 July, 1967.)

of the future. This tendency sprang partly from sources of Catholic inspiration, which are traditional in some of these countries, and which on moral grounds reject profitability as the primary criterion for business decisions and prefer association (now called 'concertation') to competition. But it came partly (and in some countries wholly) from other sources of more recent origin, among which were the following.

First, there was the view that some method of planning incomes and prices from the centre ('incomes policy') was necessary to fill the breach left by a presumed partial or even total breakdown of market mechanisms:

(a) on product markets in those branches, said to be inevitably growing in number, where production is concentrated in a few large firms (oligopoly); and/or

(b) on factor markets, the emphasis here being placed sometimes on labour and sometimes on capital.

Secondly, there was the ambition of some econometricians to run the economy by reference to the solutions given by a computable model.

Thirdly, there was the belief in the possibility and desirability of a 'convergence' between the economic systems of 'West' and 'East'.

Fourthly, there was the spread of a new conception of what is meant by 'freedom', 'voluntariness' and 'democracy', combined with the notion that economic decision-making can and should be conducted by discussion between the public authorities and the representatives of group-interests.

We have remarked upon the widely-made claim that 'French-style' planning solves a 'false dilemma' and closes an old 'ideological issue'; or that it is a form of central planning which even economic liberals should welcome. This claim rests, in the case of so-called 'indicative planning' (or centralised forecasting), on its 'non-interventionist' character; and in the case of the interventionist variety of French planning on the 'softness' of the techniques of intervention. In neither case, we have contended, is it a valid claim. In the first, government forecasting for private business, assuming that it is not totally ineffective and therefore useless, may be more destructive of the 'complex mechanisms on which the market economy is based'¹ than many traditional forms of intervention. In the second case, some of the new 'soft' techniques may be more, not less, objectionable than the traditional forms, because they mean that the public authorities are not

¹ Cf. the statement made in Britain's *National Plan* (1965), which consisted essentially of centralised forecasting, that care would be taken not to destroy these mechanisms. (*Op. cit.*, p. 3.)

Some Conclusions

bound by strictly prescribed rules but given large discretionary power in determining the purposes, nature and extent of the intervention, and in choosing the branches, or even firms, that should be favoured, in accordance with a new principle of what has been called 'flexible empiricism'. Some French critics see this development as the very worst feature of present-day economic interventionism in France. Objectionable also in their view is the secrecy surrounding the terms of 'contracts' setting out the obligations assumed by private firms in return for the favours or 'freedoms' granted by the public authorities.

The view of the exponents of French planning that it is possible to graft certain features of the centrally-planned economy on to the market economy so as to form the perfect hybrid (containing the most desirable features of both and the undesirable features of neither) must, we conclude, be dismissed in favour of the traditional view that this aim is unattainable.

Thus the 'dilemma' persists and the 'ideological issue' remains open. There is nothing in French-style planning, or in the related conception of 'modern capitalism', which dispenses with the need for us, as citizens of our respective 'western' countries, to decide which of two opposite directions we prefer to take. We must still decide whether to encourage the competitive market economy and to try to strengthen its foundations after the weakening that has already been caused by inflation, administrative controls, excessive taxation, restrictive practices, the denigration of the profit motive and other incitements to poor management; or whether to 'advance' further beyond 'classical' capitalism, infusing it with still more elements of socialism and/or corporativism. Our choice must depend on a weighing-up of what we believe to be the relative merits and risks of the alternative courses from three familiar points of view. The first is that of efficiency, and capacity for calling forth human effort, encouraging inventiveness and innovation, and satisfying consumers' 'wants' (by which we do not all understand the same thing) at high and rising income levels. The second is that of the preservation of other values, to which we do not all attach the same importance, and some of which ('freedom', 'voluntariness', 'democracy', 'ethics') we do not all interpret in the same sense. The third is whether we believe that corporativism, however undesirable from the two preceding points of view, is nevertheless unavoidable because the imperfections in market mechanisms (for products, or factors, or both) are as serious as is contended by the advocates of an 'incomes policy' and not remediable by less objectionable methods.

The choice between these two directions remains one of the 'fundamental options', even if we do not believe that all the elements underlying it can be

put, like the options of the French plans, in precise numerical terms; and even if we suppose that our assessment of them must turn on intuitive judgement rather than on the 'groping empiricism'¹ recommended by some French planners.

We have seen that in France, even during the long period of stable government under the 5th Republic, the *régime* has so far hesitated to make a clear choice between liberalism and dirigism, or between 'classical' capitalism and some more 'modern' form of capitalism. Instead, it has sometimes appeared to be moving in one direction, sometimes in the other, and sometimes in both at once. By the spring of 1967, more voices were beginning to urge that this option should be clearly put. And more voices also were warning of the dangers—of low efficiency of industry on the one side, and of arbitrariness in the use of public power and public funds on the other—that lurked in the kind of economic system which the authorities seemed now to be favouring, namely, a system based on collusion between government and 'big business', with business perhaps being deliberately made 'big' for the purpose. This was a form of French planning and 'modern capitalism' of which Frenchmen of diverse 'ideological' persuasions were expressing their common disapproval.

¹ The expression is M. Bloch-Lainé's.

References

1. Books, Articles, etc

ALLAIS, MAURICE, Congrès des économistes de langue française, discussion, May, 1964.

BATAILLER, FRANCINE, 'Une nouvelle technique de l'économie concertée: les quasi-contrats pour l'exécution du Plan', *Revue de science financière*, April-June 1964.

BAUCHET, PIERRE, *La planification française*, Éditions du Seuil, 1962.

BAZARD, SAINT-AMAND, *Doctrine de Saint-Simon, Exposition*, Première année, 1829 (1924 édition, Marcel Rivière).

BÉNARD, JEAN, 'Le Marché Commun Européen et l'avenir de la planification française', *Revue économique*, September 1964.

BLOCH-LAINÉ, FRANÇOIS, *A la recherche d'une économie concertée*, Éditions de l'Épargne, 1959.

— *Pour une réforme de l'entreprise*, Éditions du Seuil, 1963.

BOISDÉ, RAYMOND, *Technocratie et démocratie*, Plon, 1964.

BRUCLAIN, CLAUDE (collective pseudonym), *Le socialisme et l'Europe*, Éditions du Seuil, 1965.

CALAN, PIERRE DE, *Renaissance des libertés économiques*, Plon, 1963.

CAZES, BERNARD, *La planification en France et le IV^e Plan*, Éditions de l'Épargne, 1962.

CEPREL (Centre d'étude de la prospection économique à moyen et long termes), *Bulletins* on 'L'exécution du III^e Plan français', July and December 1964.

CHENOT, BERNARD, *Les entreprises nationalisées*, Presses Universitaires de France, 1956 (3rd édition 1963).

DAYRE, JEAN, *Les faux dilemmes: Libéralisme ou dirigisme? Inflation ou récession?*, Éditions d'Organisation, 1959.

DEBBASCH, CHARLES, 'La V^e république et l'administration: II—L'action administrative', *Le Monde*, 31 March 1967.

DENAMUR, HENRI, 'Industrie, patronat et dirigisme français', *Le Monde*, 25 and 26 April 1967.

DORFMAN, H., SAMUELSON, P., and SOLOW, R., *Linear Programming and Economic Analysis*, McGraw Hill, 1958.

DOW, J. C. R., *Economic Planning in France*, P.E.P., 1961.

DUVERGER, MAURICE, *Introduction à la politique*, Gallimard, 1964.

- DUVERGER, MAURICE, 'Le socialisme et l'occident', *Le Monde*, 5-6 Septembre 1965.
- ENSEMBLE, JULIEN (collective pseudonym), *Le contre-plan*, Editions du Seuil, 1965.
- FOURASTIÉ, J. and COURTHÉOUX, J.-P., *La planification en France*, Presses Universitaires de France, 1963.
- GÉLINIER, OCTAVE, *Le secret des structures compétitives*, Editions Hommes et Techniques, 1966.
- GOCHT, ROLF, 'Programmierung in der EWG—Zu Ende Gedacht', *Frankfurter Allgemeine Zeitung*, 5 June 1963.
- HAYEK, F. A. VON, *The Road to Serfdom*, University of Chicago Press, 1944.
- 'The Use of Knowledge in Society', *American Economic Review*, September 1945.
- 'The Results of Human Action but Not of Human Design', published in a French translation in Jacques Rueff and others, *Les fondements philosophiques des systèmes économiques* (edited by Emil Claassen), Payot, 1967.
- HERRIAU, AUGUSTE, *Lettre à des Jeunes Patrons*, Mallez (Cambrai), 1964.
- ILAU, HANS, 'Die Problematik einer langfristigen Programmierung in der EWG', *Neue Zürcher Zeitung*, 30 August 1963.
- KNIGHT, F. H., *Risk, Uncertainty and Profit*, 1921 (reprinted by London School of Economics, 1933).
- LE GUAY, FRANÇOIS, 'La planification en Francia', *Boletín Económico de América Latina* (CEPAL), VIII, No. 1, March 1963.
- LEROY-JAY, PATRICE, 'Le Plan français: une tentative d'économie concertée', *Revue économique franco-suisse*, No. 4, 1963.
- LIST-GESELLSCHAFT, *Planung ohne Planwirtschaft*, Mohr (Tübingen) and Kyklos (Basle), 1964.
- LOICHOT, MARCEL, *La réforme pancapitaliste*, Robert Lafont, 1966.
- LUTZ, F. A. and V. C., *The Theory of Investment of the Firm*, Princeton University Press, 1951.
- MAILLET, PIERRE, 'Aspects théoriques et concrets de l'élaboration d'un Plan d'investissement', paper presented to Econometrics Conference, Paris, July 1956.
- MASSÉ, PIERRE, 'Pratique et philosophie de l'investissement', *Economie appliquée*, No. 4, 1952.
- *Le choix des investissements*, Dunod, 1959 (2nd edition 1964).
- 'Une approche de l'idée de Plan', *Encyclopédie française* (Larousse), Vol. 9 (edited by François Perroux), 1960.
- 'Histoire, méthode et doctrine de la planification française', *La Documentation française*, 1962 (1).
- 'French Methods of Planning', *Journal of Industrial Economics*, November 1962 (2).
- 'La programmation économique dans les Pays de la C.E.E.', *Actes du Colloque de Rome*, November-December 1962 (3).

References

- MASSÉ, PIERRE, 'L'Europe et l'idée de programmation économique', *Revue du Marché Commun*, February 1963 (1).
- 'Planification et démocratie', *Res Publica* (Belgium), No. 3, 1963 (2).
- 'Le Plan français et la théorie économique', December 1963 (3) (published in an English translation in *Econometrica*, April 1965).
- 'Les principes de la planification française', *Weltwirtschaftliches Archiv*, Heft I, 1964 (1).
- 'Rapport sur la Politique des Revenus établi à la suite de la Conférence des Revenus', October 1963–January 1964, *La Documentation française*, 1964 (2).
- 'La croissance économique et ses impératifs', *Revue du Marché Commun*, May 1964 (3).
- Congrès des économistes de langue française, discussion, May 1964 (4).
- 'Le Plan et ses partenaires à l'heure du V^e Plan', *Jeune Patron*, October 1964 (5).
- *Le Plan ou l'Anti-hasard*, Gallimard, 1965.
- MENDÈS-FRANCE, PIERRE, *La république moderne*, Gallimard, 1962.
- NIVEAU, MAURICE, 'La planification indicative en France', *Economie appliquée*, 1962.
- ORTOLI, FRANÇOIS, 'Le Plan et la compétition', *Jeune Patron*, November 1966.
- PERROUX, FRANÇOIS, *Capitalisme et communautés de travail*, Sirey, 1938.
- *Le IV^e Plan français*, Presses Universitaires de France, 1962.
- *Les techniques quantitatives de la planification*, Presses Universitaires de France, 1965.
- PIETTRE, ANDRÉ, three articles, entitled 'Vers une économie contractuelle', in *Le Monde*, 15, 16 and 17 May 1963.
- POTTIER, PIERRE, 'Fiscalité et croissance dans le IV^e Plan', *Revue de science financière*, 1964.
- PRATTEN, C., 'The Best-Laid Plans', *Lloyds Bank Review*, July 1964.
- RICHARDSON, G. B., *Information and Investment*, Oxford University Press, 1960.
- 'Les relations entre firmes', in Bloch-Lainé, François, and Perroux, François, *L'entreprise et l'économie du XX^e siècle*, Vol. 3, Presses Universitaires de France, 1966.
- RIPERT, JEAN, 'Défense et illustration du IV^e Plan', *Jeune Patron*, special number, April 1962.
- RISSEYRE, P., 'Orientation des investissements et politique d'incitation', *Economie et Humanisme*, November – December 1961 (reprinted in Vian, Pierre, and others, *Démocratie, planification, aménagement*, Les Editions Ouvrières, 1964).
- ROBERTSON, D. H., 'The Economic Outlook', 1947 (reprinted in *Utility and All That*, Allen and Unwin, 1952).
- RUEFF, JACQUES, Congrès des économistes de langue française, discussion, May 1965.
- and others, *Les fondements philosophiques des systèmes économiques* (edited by Emil Claassen), Payot, 1967.

- SAUNDERS, CHRISTOPHER T., 'The Development and Problems of Economic Planning in Great Britain', *Weltwirtschaftliches Archiv*, Heft I, 1964.
- SHONFIELD, ANDREW, 'Liberté politique et contrainte économique', *Bulletin SEDEIS*, July 1963.
- STONE, RICHARD (Department of Applied Economics, Cambridge), *A Programme for Growth* (5), *The Model in Its Environment*, Chapman and Hall, July 1964.
- TABOULET, HENRI, Transformation des marchés et dimension optimum des entreprises, *Bulletin SEDEIS*, 1 September 1965.
- THOLL, GERHARD, 'Die französische Planification—ein Vorbild?', *Ordo*, Band 15/16, 1965.
- TOBIN, JAMES, 'How Planned is Our Economy?', *New York Times Magazine*, 13 October, 1963.
- TURIN, G., Le Plan acte politique, *Economie et Humanisme*, November–December 1961 (reprinted in Viau, Pierre, and others, *Démocratie, planification, aménagement*, Les Editions Ouvrières, 1964).
- ULLMO, YVES, 'Quelques réflexions sur le bon usage du Plan français', *L'usine nouvelle*, May 1965.
- VILLEY, DANIEL, 'Marché et Plan', paper presented at Congrès des économistes de langue française, 1964.
- *A la recherche d'une doctrine économique*, Editions Génin, 1967.
- WICKHAM, S., 'French Planning: Retrospect and Prospect', *Review of Economics and Statistics*, November 1963.

2. Official Documents

a. The French Plans:

- Rapport général sur le Premier Plan de modernisation et d'équipement* (Monnet Plan), November 1946–January 1947.
- Deuxième Plan de modernisation et d'équipement* (1954–57).
- Troisième Plan de modernisation et d'équipement* (1958–61).
- IV^e Plan de développement économique et social* (1962–65).
- On the 4th Plan: *La documentation française illustrée*, 'Le IV^e Plan', October–November 1962.
- V^e Plan: Rapport sur les principales options* (*Journal officiel*, 23 December 1964, reprinted in special edition. (References are to the latter.))
- *Rapport général* (two volumes), published as *Cinquième Plan de développement économique et social*, 1966–70.

b. Reports of Commissions of the Plans:

- 'Troisième Plan: Commission de l'énergie' (published in *Revue française de l'énergie*, June 1957).
- IV^e Plan: Commission de l'économie général et du financement*.
- Commission de la sidérurgie.
- Commission des industries de transformation.

References

c. Other French documents

Commissariat au Plan, *Rapports sur l'exécution du Plan* for the years indicated.

Conseil économique et social, *Méthodes d'élaboration du Vème Plan*, rapport présenté au nom de la Section du Plan et des Investissements par M. Maurice Halff, October 1963 (*Journal officiel*, 7 December 1963).

– *Principales options du V^e Plan*, rapport présenté au nom du Conseil économique et social par M. Jean Chardonnet, October 1964 (*Journal officiel*, 13 November 1964).

– *Vème Plan, Rapport pour avis*, présenté au nom de la Section de la Conjoncture et du Revenue National, par M. André Barjonet, September 1965 (I) (*Journal officiel*, 14 October 1965).

– *Problèmes posés par la concentration des entreprises*, January 1967 (*Journal officiel*, 10 February 1967).

Conseil National du Crédit, *Annual Reports* for the years indicated.

Cours des Comptes, *Rapport, suivi des réponses des administrations*, année 1964.

FDES (Fonds de Développement Economique et Social), *Tenth Annual Report*, published by Ministère des Finances (SEEF) in *Statistiques et études financières, Suppléments*, 1965.

INSEE (Institut National de la Statistique et des Etudes Economiques), 'Méthodes de programmation dans le V^e Plan', *Etudes et Conjoncture*, December 1966.

Lorain Committee (*Rapport présenté au Ministre des Finances par le comité chargé d'étudier le financement des investissements*, presided over by M. Maurice Lorain), Ministère des Finances (SEEF), May 1963.

Ministère des Finances, SEEF (Service des Etudes Economiques et Financières) 'Rapport sur les Comptes de la Nation de l'année 1960', *Statistiques et études financières*, July 1961.

– *Etudes de comptabilité nationale*, No. 3, 1962.

d. Other documents

OECD (formerly EEEEC), *Report on France*, July 1962.

– *National Accounts Statistics*.

The (British) National Plan, Cmnd. 2764, HMSO, 1965.

Index of Names

- Pottier, Pierre, 48n
Pratten, C., 76n

Rimbaud, Alain, 154n
Richardson, G. B., 128, 130n, 131n, 132
Ripert, Jean, 24-5
Rissoyre, P., 46n
Robbins, Lord, 19
Robertson, Sir Dennis, 17n, 19n, 121-2, 141
Rueff, Jacques, 3, 28, 29n, 32n

Samuelson, Paul, 130n
Saunders, Christopher, 62, 71n
Sauvy, Alfred, 180n
Shone, Sir Robert, 54
Shonfield, Andrew, 5n, 62n

Solow, Robert, 130n
Stone, Richard, 138n, 140n

Taboulet, Henri, 181n
Tholl, Gerhard, 128n
Tobin, James, 63n
Turin, G., 59n

Ullmo, Yves, 107n, 146, 160n

Vallon, Louis, 170n
Villey, Daniel, 121n, 176

Wickham, S., 24n

Zahn, Joachim, 145n

